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The Status and Character of In-Lieu Fee Mitigation in the United States

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I. Executive Summary

Under §404 of the Clean Water Act, the U.S. Army Corps of Engineers (Corps) may not issue a permit for the discharge of dredge or fill material into waters of the United States until the applicant first demonstrates that he or she has taken steps to avoid impacts to aquatic resources, minimize potential impacts to aquatic resources, and, finally, provide compensatory mitigation for all unavoidable impacts. Currently, there are three primary mechanisms supported by the Corps and the U.S. Environmental Protection Agency (EPA) for permittees to meet their compensatory mitigation obligations: permittee-responsible mitigation, purchasing credits from a mitigation bank, or making a payment to an approved in-lieu fee mitigation sponsor.

The federal agencies have issued a variety of guidance documents to improve the effectiveness of these different forms of mitigation, including the 1990 Mitigation Memorandum of Agreement,[1] the 1995 Banking Guidance,[2] the 2000 In-Lieu Fee Guidance,[3] and the Corps' Regulatory Guidance Letter No. 02-2.[4] In March 2006, EPA and the Corps issued a proposed rule on compensatory mitigation that sets out to establish "to an extent that is feasible and practical, equivalent standards for all forms of compensatory mitigation."[5] Although the proposed rule would eliminate in-lieu fee mitigation as an option for providing compensatory mitigation, it also states that the agencies are "seeking comment on alternative approaches that would retain in-lieu fee programs as a separate category of mitigation with somewhat different requirements."[6]

The 1995 Banking Guidance characterized in-lieu fee mitigation as arrangements "wherein funds are paid to a natural resource management entity for implementation of either specific or general wetland or other aquatic resource development projects…"[7] The 2000 In-Lieu Fee Guidance (2000 ILF Guidance) defined in-lieu fee as "mitigation that occurs in circumstances where a permittee provides funds to an in-lieu-fee sponsor instead of either completing project-specific mitigation or purchasing credits from a mitigation bank approved under the Banking Guidance."[8] The 2000 In-Lieu Fee Guidance lays out the circumstances under which in-lieu fee mitigation is considered appropriate and, in such cases, how planning, establishment, and use of the programs should be carried out.

This study seeks to meet two primary goals: 1) characterize the 38 approved, active in-lieu fee programs in the country identified as of October 2005; and 2) assess the degree to which these programs have addressed the concerns and recommendations issued by the federal wetland regulatory agencies, as well as the National Research Council (NRC), Government Accountability Office (GAO), and other researchers over the past 15 years.

1. Characteristics of In-Lieu Fee Programs

In April 2006, ELI published *2005 Status Report on Compensatory Mitigation in the United States*,[1] which reports data from a survey of all 38 Corps districts. Data reported in that study and collected since indicate that there were 46 approved, active in-lieu fee programs in the United States as of May 2006. This report, however, concerns only the 38 approved, active in-lieu fee programs that were identified as of October 2005.

As of October 2005, in-lieu fee programs were formally authorized in 24 of the 38 Corps districts.[2] Of the 38 active in-lieu fee programs interviewed for this study, 22 programs currently operate under authorizing instruments that were established prior to the release of the 2000 ILF Guidance and 16 programs operate under authorizing instruments that were established after the 2000 ILF Guidance was issued.

Of the 46 approved, active in-lieu fee programs identified in ELI's *2005 Status Report*, 15 (35 percent) are authorized to sell only wetland credits, 17 (40 percent) sell both wetland and stream credits, 4 (9 percent) sell only stream credits, and 7 (16 percent) sell wetland, stream, and other credit types (credit types were not identified for three programs).

Thirty-seven of the in-lieu fee programs reviewed for this report have collectively accepted $302 million since the programs were authorized to accept fees (the earliest program was authorized in 1988). Five of these programs, however, account for $249 million, or 82 percent of all the fees collected (see Appendix C).

Twenty-eight of the programs interviewed were able to provide ELI with an estimate of what types of mitigation they use to replace lost aquatic resources. Of these, six programs (21 percent) reported that mitigation is achieved entirely through preservation. Five of these six programs have agreements that indicate that preservation is the preferred or anticipated method of mitigation. One program reported that 75 to 99 percent of mitigation is achieved through preservation, and an additional 5 programs reported that 50 to 74 percent of mitigation is achieved through preservation.

The 38 approved in-lieu fee programs reviewed by ELI are sponsored by a variety of agencies and organizations. Twenty-one of the 38 programs (55 percent) are sponsored by nonprofit conservation organizations and land trusts, 10 (26 percent) are sponsored by state natural resource agencies, 3 (8 percent) are sponsored by state fish and wildlife agencies, 3 (8 percent) are sponsored by local governments/agencies, and 1 (3 percent) is sponsored by a university.

Twenty-six of the 38 approved in-lieu fee programs (68 percent) restrict the types of permitted impacts that can make in-lieu fee payments to the programs as an option for fulfilling their compensatory mitigation requirements. These restrictions apply to the types of permits under which the impacts are approved, size and types of permitted impacts, and the types of permittees that can pay into the program. Nine of these 26 programs specify that only impacts authorized through specific types of §404 permits can pay into the programs. Three programs only accept fees for impacts authorized by specific types of permittees. Eight programs accept payments for impacts permitted through local regulatory programs, delegated state programs, state wetland, stream or water quality programs, or other regulatory programs. Twelve of the 38 approved in-lieu fee programs (32 percent) restrict the size of the permitted impacts that are eligible to satisfy their compensatory mitigation requirements through payment to the programs.

At least four in-lieu fee agreements state that the programs are not an eligible method for satisfying mitigation requirements if credits are available from an approved mitigation bank.

ELI found that 23 of the 38 in-lieu fee agreements reviewed (61 percent) allow the programs to accept funds from sources other than permittees. Seventeen programs (45 percent) accept funds generated by the resolution of enforcement and compliance actions initiated by the Corps. Ten programs, including some of

those that accept fines as stated above, state rather vaguely that they accept "other funds." Five programs accept fees from such sources as state appropriations, private donations, and grants; one program also accepts funds from federal sources and revolving funds in addition to these sources.

2. Assessment of In-Lieu Fee Programs

This study examines many of the benefits of in-lieu fee mitigation, the risks associated with in-lieu fee mitigation, and whether or not in-lieu fee programs are managing risks appropriately and effectively.

ELI notes that no body of ecological, empirical, field-based research evaluates the relative effectiveness of the three mitigation methods.[1] Accordingly, many of ELI's conclusions focus on the relative risks and benefits of the method.

a. Benefits of In-Lieu Fee Mitigation

In-lieu fee mitigation offers significant benefits as a compensatory mitigation option. These include:

1. *The nature of the mitigation provider*
   Over half of the in-lieu fee programs reviewed are sponsored by nonprofit organizations or land trusts. These groups typically have natural resource conservation as the primary goal in their organizational mission statements. As a result, they may have greater expertise in prioritizing sites for their ecological and other environmental values, and the capacity, track record, and organizational commitment to ensure long-term site management and stewardship. Nonprofit groups and land trusts generally also have significant experience working with diverse groups of agencies and organizations in a collaborative manner.

2. *Site selection, the watershed approach, and long-term stewardship*
   The Corps has limited ability to require mitigation providers to utilize a watershed analysis when selecting sites, particularly with permittee-responsible mitigation and mitigation banking. In contrast, in-lieu fee programs may provide opportunities for supporting watershed-based site selection and maintaining some external public focus on ensuring long-term stewardship of conservation and restoration sites. A wide variety of creative, watershed-based approaches are reflected in many of the 38 in-lieu fee program agreements reviewed.

   Although only 4 of the programs reviewed identified sites in advance, or reference a watershed plan that identifies sites, 10 program agreements (26 percent) indicate that the sponsor will embark on an assessment of watershed needs to identify sites. In addition, 12 of the authorizing agreements reviewed (32 percent), including some that commit to conducting an assessment of watershed needs, indicate that the program sponsor will establish a site selection committee or coordinate with a diverse group of partners to aid in prioritizing and selecting projects.

   Although these programs do not represent a majority of the programs reviewed, they do offer some excellent examples of how the collaborative nature of conservation organizations and land trusts can bring significant conservation expertise to bear on site selection.

3. *Ability to meet local needs and mitigate small impacts*
   Many of the in-lieu fee programs reviewed restrict the types of permits, size and types of permitted impacts, and/or the types of permittees that can pay into the programs. Some of these narrowly tailored programs may be more effective than other compensatory mitigation approaches at providing mitigation options that address specific local needs. Local in-lieu fee program sponsors may also have more intimate, long-standing knowledge of local resources, a long-term commitment to conservation in the region, or expertise in restoring specific aquatic resource types. Several in-lieu fee programs also address aquatic resources below the Corps' acreage threshold or aquatic resource types that may not normally require compensatory mitigation.

4. *Ease of regulatory oversight*
   GAO's 2005 study found that "[o]verall, the Corps districts . . . have performed limited oversight to determine the status of required compensatory mitigation."[2] GAO did find, however, that the agency "provided somewhat more oversight for mitigation" conducted by mitigation banks and in-lieu fee programs than for permittee mitigation.[3]

b. Risks of In-Lieu Fee Mitigation

In-lieu fee programs have had mixed success in addressing three central risks. These include:

1. *The temporal lag between impacts and implementation of compensatory mitigation*
   The risk associated with the lag between the time that permitted impacts occur and when mitigation projects are implemented, although common to all three forms of compensatory mitigation, is more difficult to manage for permittee-responsible and in-lieu fee mitigation. For banks, the temporal risk is partially minimized through phased credit release, which allows banks to sell credits as specific administrative and ecological milestones are met. Bank sponsors, who are most often private entrepreneurs, are able to incur up-front costs because they bring substantial investment capital to the project. Pre-capitalization of many of these costs is more challenging for nonprofit organizations and land trusts, which sponsor at least 50 percent of the in-lieu fee programs reviewed. Some of these groups have less access to the public and private capital necessary to offset these significant up-front expenses.

2. *Unrealistic plans for financing acquisition, implementation, and long-term management*
   Although the 2000 ILF Guidance suggests that in-lieu fee sponsors should supply the Corps with information on potential sites in advance,[4] in practice, in-lieu fee programs routinely accept fees after the agreement is in place but in advance of site identification. As a result, in-lieu fee programs are perhaps least capable of adequately estimating the costs necessary to replace the aquatic resources lost through permitted impacts.

   In addition, ELI found that a majority of the in-lieu fee agreements reviewed (61 percent) allow programs to accept funds from sources other than permittees. Accepting alternative sources of funding (i.e., from federal grants, damage assessment programs, or fines) above the fees collected to compensate for permitted impacts may serve to subsidize in-lieu fee mitigation and therefore distort the true costs of replacing lost aquatic resource functions.

3. *Disconnect between the goals and objectives of the Corps and mitigation providers*
   Because of their organizational missions, conservation organizations, land trusts, and many of the state agencies that sponsor in-lieu fee mitigation are primarily concerned with land preservation, and not necessarily the restoration of lands and waters. The Corps, on the other hand, is largely driven by requirements to replace lost aquatic resource functions and meet the national no net loss goal. The conservation goals of the conservation organizations and the Corps may not completely coincide. At one extreme, this disconnect may lead to delays in the Corps approving sites for the expenditure of in-lieu fees; at the other extreme it may lead to a higher degree of reliance on preservation as the mitigation method of choice.

c. The Track Record of In-Lieu Fee to Date

Two GAO studies, one NRC study, multiple agency guidance documents, and the proposed rule have all highlighted deficiencies of in-lieu fee mitigation and in some cases sought to remedy these inadequacies. This study evaluates 38 approved and active in-lieu fee programs to determine the extent to which these programs conform to the recommendations and guidance contained in the documents listed above. The table below presents 23 "standards" against which existing in-lieu fee programs are compared (*see* table 1: Comparison of Recommended Standards to In-Lieu Fee Programs Reviewed, page 7).

ELI found that, in general, the in-lieu fee programs reviewed have achieved only 6 of the 23 standards outlined in the recommendations provided through the various policy documents referenced. Furthermore, several in-lieu fee sponsors were unaware that the 2000 ILF Guidance was in effect or were unfamiliar with the recommendations contained in the guidance. It is unclear whether these shortcomings are attributable to inadequate communication among and between the 38 Corps district offices; inadequate communication between the Corps and the program sponsors; the nature of the mitigation providers; inherent problems with federal guidance that has been provided on in-lieu fee mitigation to date; or is due to insurmountable problems with how in-lieu fee mitigation is structured.

d. Summary

All three forms of compensatory mitigation carry with them certain inherent risks and offer their own benefits. ELI's study finds that in vast majority of cases, in-lieu fee mitigation is not being carried out in a manner that fully addresses the recommendations offered by existing studies and guidance. The shortcomings of in-lieu fee mitigation offered here may be a product of the structure of the existing programs and in-lieu fee mitigation policy, rather than the mitigation method itself.

If in-lieu fee mitigation is to be a viable, effective third-party mitigation option, the shortcomings highlighted here may need to be addressed. Although many solutions could be devised, the challenge is to identify approaches that ensure that lost aquatic resources are replaced, while maintaining the flexible aspects of the approach that differentiate it from mitigation banking. This may lead to a higher barrier to entry for potential in-lieu fee providers due to requirements to pre-capitalize some costs, such as advanced site identification and the development of adequate and accurate cost estimates. Such improvements would necessitate the development of federal or state policy with more regulatory force than guidance. In addition, oversight and enforcement would be critical for ensuring that these standards are carried out in a meaningful way.

Since no existing ecological, empirical, field-based research has demonstrated whether or not in-lieu fee mitigation is inherently unable to replace lost aquatic resource functions, the fundamental questions for in-lieu fee mitigation are whether the risks can be adequately managed and whether the risks that remain are outweighed by the potentially significant benefits of in-lieu fee mitigation.

Table 1. Comparison of Recommended Standards to In-Lieu Fee Programs Reviewed. The table below lists 23 standards – recommendations or guidance – provided by several sources, including the Government Accountability Office (formerly the General Accounting Office), National Research Council, and the 2000 ILF Guidance on the structure, operation, and oversight of in-lieu fee mitigation programs. References for each of the standards are provided in the endnotes. The statistics provided can all be found in the sections indicated. The last column indicates whether or not a minimum of 50 percent of the 38 in-lieu fee programs studied conform to the standard. Although 50 percent is a low threshold against which to measure the success of any program, it was chosen with the acknowledgement that 22 of the 38 in-lieu fee programs reviewed (58%) operate under authorizing instruments that were established prior to the release of the 2000 ILF Guidance (*see below:* § III.3. Pre-/Post-Guidance Comparisons).

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
1.	Programs should provide mitigation in advance of project impacts.[1]	3 of 38 do or are committed to doing so (8%)[2]	35 of 38 (92%)		IV.20. Completing Mitigation in a Timely Manner	No
2.	Agreement should specify potential sites.[3]	1 of 38 (3%)	34 of 38 (89%)	3 of 38 (8%)	IV.8. Site Identification	No
3.	Program sponsors should supply the Corps with information in advance on the schedule for implementation of mitigation projects.[4]	18 of 38 (47%)	20 of 38 (53%)		IV.20. Completing Mitigation in a Timely Manner	No
4.	Program sponsors should plan and develop in-lieu fee mitigation projects to address the specific resource needs of the watershed;[5] In-lieu fee programs should provide "watershed integration."[6]	13 of 38[7] (34%)	25 of 38 (66%)		IV.8. Site Identification	No
5.	Program sponsors should give careful consideration to the ecological suitability of sites for achieving the goal and objectives of compensatory mitigation.[8]	19 of 38[9] (50%)	19 of 38 (50%)		IV.8. Site Identification	=

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
6.	Programs should use preservation of existing wetlands only in exceptional circumstances.[10]				IV.1. Credit Sales and Mitigation Activities Undertaken	No (see 6.a. and 6.b. below)
6.a.	Wetlands	Of 18 responding programs, 33% of the mitigation is provided through restoration, 13% through enhancement, and 2% through creation	Of 18 responding programs, 52% of the mitigation is provided through preservation		IV.1. Credit Sales and Mitigation Activities Undertaken	No
6.b.	Streams	Of 7 responding programs, 49% is provided through restoration and 6% through enhancement	Of 7 responding programs, 45% is provided through preservation		IV.1. Credit Sales and Mitigation Activities Undertaken	No[11]
7.	Programs should use funds collected for replacing wetland functions and values and not to finance non-mitigation programs and priorities, such as upland preservation, research, or education.[12]	15 of 38 (39%)	20 of 38 (53%)	3 of 38 (8%)	IV.9. Replacing Lost Aquatic Resource Functions	No
8.	Funds collected should ensure a minimum of one-for-one acreage replacement.[13]	14 of 38 (37%)[14]	24 of 38 (63%)		IV.11. Requirements to Achieve One-to-One Replacement	No

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
9.	In-lieu fee programs should provide "timely … compensation for all permitted activities."[15]				IV.20. Completing Mitigation in a Timely Manner	No (see 9.a. and 9.b. below)
9.a.	Agreement should specify a schedule for conducting the activities that will provide compensatory mitigation or a requirement that projects will be started within a specified time after impacts occur.[16]	18 of 38 (47%)	20 of 38 (53%)		IV.20. Completing Mitigation in a Timely Manner	No
9.b.	Land acquisition and initial physical and biological improvements should be completed by the first full growing season and no later than the second full growing season following collection of the initial funds.[17]	11 of 38 (29%)	27 of 38 (71%)		IV.20. Completing Mitigation in a Timely Manner	No
10.	Agreements should require mitigation sites to be protected in perpetuity.[18]	19 of 38 (50%)	19 of 38 (50%)		IV.13. Protection in Perpetuity	=
11.	Site protection should be accomplished using an appropriate real estate arrangement (e.g., conservation easement, transfer of title to a Federal or State resource agency or non-profit conservation agency).[19]	15 of 38 specify one or more of the following: fee title acquisition, conservation easements, deed restrictions, or restrictive covenants (40%)	19 of 38 do not require protection in perpetuity, nor do they specify how the sites should be protected (50%)	4 of 38 require protection in perpetuity but do not specify the type of site protection mechanisms (3%)	IV.13. Protection in Perpetuity	No
12.	Agreement should include a schedule for a regular monitoring report to document funds received, impacts permitted, how funds are disbursed, types of projects funded, etc.[20]	34 of 38 (89%)	4 of 38 (11%)		IV.16. Administrative Reporting	Yes

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
13.	Agreement should specify requirements for monitoring (i.e., specific parameters to be monitored).[21]	24 of 38[22] (63%)	14 of 38 (37%)		IV.17. Monitoring Requirements	Yes
14.	Agreement should specify the geographic service area.[23]	29 of 38 (76%)	9 of 38 (247%)		IV.6. Service Areas	Yes
15.	Agreement should outline method for determining fees.[24]	14 of 38 (37%)	24 of 38 (63%)		IV.12. Determining Fees	No
16.	Agreement should outline method for determining credits.[25]	3 of 38 (8%)	35 of 38 (92%)		IV.10. Method of Determining Credits	No
17.	Agreement should specify performance standards for determining ecological success of mitigation sites, or require inclusion in individual project plan.[26]	18 of 38 (47%)	14 of 38 (37%)	6 of 38[27] (16%)	IV.18. Performance Standards	No
18.	Agreement should "contain distinct provisions that clearly state that the legal responsibility for ensuring mitigation terms are satisfied fully rests with the organization accepting the in-lieu-fee."[28]	12 of 38 (32%)	26 of 38 (68%)		IV.14. Remedial Action Provisions and Contingency Funds	No
19.	Agreement should include "provisions for remedial actions and responsibilities (e.g., contingency fund)"[29]	19 of 38 (50%)	19 of 38 (50%)		IV.14. Remedial Action Provisions and Contingency Funds	=
20.	Agreement should include financial, technical and legal provisions for long-term management and maintenance.[30]	22 of 38 (58%)	16 of 38 (42%)		IV.15. Long-Term Management and Maintenance Provisions	Yes

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
21.	Agreement should specify the long-term management provisions to provide "assurances of long-term sustainability and stewardship...", or require inclusion in individual project plan [31]	13 of 38 (34%)	16 of 38[32] (42%)	9 of 38[33](24%)	IV.15. Long-Term Management and Maintenance Provisions	No
22.	Agreement should specify financial and legal provisions for long-term management and maintenance (e.g., trust).[34]	2 of 38 (5%)	36 of 38 (95%)		IV.15. Long-Term Management and Maintenance Provisions	No
23.	Program sponsors should utilize accounting procedures to track payments received from permittees.[35]	35 of 38[36] (92%)	3 of 38 (8%)		IV.19. Managing Program Data	Yes

II. Introduction

Under §404 of the Clean Water Act, compensatory mitigation is required as the third step of a three-step process designed to meet the goals of the Act and support the national policy of "no overall net loss" of wetland acres and functions.[1] Prior to issuing a §404 permit, the U.S. Army Corps of Engineers (Corps) must first make a determination that potential impacts have been avoided and minimized to the extent "practicable."[2] Once permitted impacts to wetlands and other aquatic resources are avoided and minimized, the remaining impacts must be mitigated, again, to the extent "appropriate and practicable."[3]

Currently, there are three primary mechanisms supported by the U.S. Environmental Protection Agency (EPA) and the Corps for permittees to meet their compensatory mitigation obligations. These are: permittee-responsible mitigation, purchasing credits from a mitigation bank, or making a payment to an approved in-lieu fee mitigation sponsor. The federal agencies have issued a variety of guidance documents and a proposed rule to improve the effectiveness of these different forms of mitigation, all of which are discussed at length below.

This study seeks to meet two primary goals: 1) characterize the 38 approved, active in-lieu fee programs in the country identified through October 2005; and 2) assess the degree to which these programs have addressed the concerns and recommendations issued by the federal wetland regulatory agencies and independent groups over the past 15 years.

1. History of In-Lieu Fee Policy

Although federal policy has long expressed a preference for mitigation to be conducted on-site, the 1990 Mitigation Memorandum of Agreement (Mitigation MOA) stated that off-site mitigation was permissible if on-site compensatory mitigation was determined not to be practicable.[1] Off-site mitigation may be performed by the permittee (often referred to as permittee-responsible mitigation) or by a third party. Third party mitigation generally falls into one of two categories: mitigation banking and in-lieu fee mitigation.

Federal guidance on the establishment, use, and operation of mitigation banks issued in 1995 first characterized in-lieu fee mitigation as arrangements "wherein funds are paid to a natural resource management entity for implementation of either specific or general wetland or other aquatic resource development projects…"[2] The Banking Guidance acknowledges that the Corps and other regulatory agencies may find situations in which in-lieu fee arrangements are appropriate, but recommends that when used, they provide "adequate assurances of success and timely implementation."[3] The Banking Guidance further states that when the Corps approves payment in-lieu of mitigation, "a formal agreement between the sponsor and the agencies, similar to a banking instrument, is necessary to define the conditions under which its use is considered appropriate."[4]

The Banking Guidance outlined two concerns over the ability of in-lieu fee mitigation to provide prompt and predicable mitigation. The Guidance states that: in-lieu fee arrangements "do not typically provide com-

pensatory mitigation in advance of project impacts," and "do not typically provide a clear timetable for the initiation of mitigation efforts."[5]

2. Federal Guidance on In-Lieu Fee Mitigation

In an effort to address these and other lingering concerns over in-lieu fee mitigation, additional federal guidance was issued in 2000 (ILF Guidance).[1] The ILF Guidance defined in-lieu fee as "mitigation that occurs in circumstances where a permittee provides funds to an in-lieu-fee sponsor instead of either completing project-specific mitigation or purchasing credits from a mitigation bank approved under the Banking Guidance."[2]

The ILF Guidance lays out the circumstances under which in-lieu fee mitigation is considered appropriate and, in such cases, how planning, establishment, and use of such programs should be carried out. The ILF Guidance provides separate recommendations for in-lieu fee programs that are designed to address impacts from individual permits and those for general permits, but both approaches strongly suggest that in-lieu fee programs have in place a formal agreement between the third party and the regulatory agency if funds are to be accepted by a third party in-lieu of the permittee satisfying their mitigation requirements through other means.

For impacts authorized under *individual permits*, in-lieu fee arrangements are considered appropriate if "developed…, reviewed, and approved using the process established for mitigation banks in the Banking Guidance. [Mitigation Bank Review Teams] should review applications from such in-lieu-fee sponsors to ensure that such agreements are consistent with the Banking Guidance."[3] Because the ILF Guidance references the process established by the Banking Guidance, that document warrants attention.

For impacts authorized under *general permits*, the ILF Guidance describes more detailed circumstances under which compensatory mitigation requirements may be satisfied through in-lieu fee payments. But the suggestions outlined in the ILF Guidance state that they apply "for *any* proposed use of in-lieu-fee mitigation to offset unavoidable impacts associated with a discharge authorized under a general permit…."[4] The ILF Guidance recommends the establishment of a "formal in-lieu-fee agreement" between the sponsor and the Corps.[5] The ILF Guidance also acknowledges that it "may be appropriate to establish an 'umbrella' arrangement for the establishment and operation of multiple sites. In such circumstances, the need for supplemental information (e.g., site specific plans) should be addressed in specific in-lieu-fee agreements."[6]

3. Additional Studies on In-Lieu Fee Mitigation

Several studies have indicated that in-lieu fee programs are both deeply problematic and potentially beneficial. In its 2001 study on in-lieu fee mitigation, *Wetlands Protection: Assessments Needed to Determine Effectiveness of In-Lieu Fee Mitigation*, the Government Accountability Office (GAO, then the General Accounting Office), stated that the method has "the potential to be an effective compensatory mitigation tool that benefits the environment and [provides] developers flexibility in meeting their mitigation require-

ments."[1] In the same study, GAO also found that "[t]he extent to which the in-lieu-fee option has achieved its purpose of mitigating adverse impacts to wetlands is uncertain."[2]

Also in 2001, the National Research Council (NRC) released its seminal report, *Compensating for Wetland Losses Under the Clean Water Act*.[3] NRC offered 26 recommendations for improving federal compensatory mitigation, including third-party mitigation. One of the five conclusions highlighted in the study stated that "[t]hird-party compensation approaches (mitigation banks, in-lieu fee programs) offer some advantages over permittee-responsible mitigation."[4]

Most recently, GAO released a report in 2005 on the degree and success of the Corps' oversight over all three methods of compensatory mitigation titled, *Wetlands Protection: Corps of Engineers Does Not Have an Effective Oversight Approach to Ensure That Compensatory Mitigation Is Occurring*. In the study, GAO concluded that the Corps districts provide "somewhat more oversight for mitigation conducted by third parties,"[5] including in-lieu fee and mitigation banks, than for permittee-responsible mitigation.[6]

4. 2006 Proposed Rules on Compensatory Mitigation

On March 28, 2006, EPA and the Corps proposed to revise existing regulations governing compensatory mitigation.[1] At the time of publication of this study, the rule was still proposed and the agencies were accepting comments. If the in-lieu fee program sections of the rule are approved as proposed, the Corps would no longer authorize new in-lieu fee mitigation programs and programs already in existence would be allowed to continue selling credits for five years. After this five-year period, these programs would be required to reconstitute themselves as a mitigation bank or cease selling credits.[2] The fate of the proposed compensatory mitigation rule remains uncertain and it is referenced in this report only to the extent that it provides a point of reference for evaluating existing in-lieu fee programs.

5. Recent Court Rulings

The Supreme Court's June 19, 2006, decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States Army Corps of Engineers* places much of the Clean Water Act §404 program in flux, including the need for compensatory mitigation. Four members of the Court concluded that federal permit requirements protect only open waters, including streams, lakes, and rivers, and those wetlands that have a "continuous surface connection" with such waters.[1] The same group of justices also said that the Clean Water Act does not apply to waters that are not continuously flowing or have a "relatively permanent flow," thus ending protection for washes and arroyos, intermittent streams, bogs and wet meadows, and wetlands not immediately adjacent to the margins of rivers and lakes.[2] Taking the opposite viewpoint, four other justices would have upheld the Corps and EPA's longstanding regulatory jurisdiction, finding that the Clean Water Act's jurisdiction over waters and wetlands is compelled by the Act's purposes as enacted by Congress in 1972, "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[3] Justice Kennedy provided the fifth vote in the case, holding that the government must in each case demonstrate a "significant nexus" between regulated wetlands and navigable waters or non-navigable tributar-

ies.[4] This result means that substantial case-by-case examination of potential regulation will be required, including the building of a substantial administrative record.[5]

Two justices wrote additional concurring opinions, each encouraging the U.S. Army Corps of Engineers to issue new regulations to help address the conundrum created by the Court's splintered decision.[6] Another possible response might be Congressional legislative action to restore federal jurisdiction and avoid a patchwork of protected and unprotected waters across the nation. Several clean water groups have already developed a proposed Clean Water Authority Restoration Act, under consideration in the U.S. House of Representatives.

III. Status of In-Lieu Fee Mitigation Programs

1. Recent Trends in In-Lieu Fee Mitigation

In April 2006, ELI published *2005 Status Report on Compensatory Mitigation in the United States*,[1] which provides data from a survey of all 38 Corps districts. Data reported in that study and collected since indicate that there were 46 approved, active in-lieu fee programs in the United States as of May 2006.[2] However, 8 of the 46 programs were approved after October 2005 or were brought to our attention too late to be included in this study (these eight programs are all in the Los Angeles District; *see* box 1: In-Lieu Fee Programs in the Los Angeles Corps District, page 20).[3] In addition, ELI identified one program that is approved but suspended until its authorizing instrument is modified to comply with the 2000 ILF Guidance,[4] and 11 programs with approval pending.[5] ELI suspects that several additional active state or local in-lieu fee programs went unreported in the April 2005 *Status Report*. Most of these unreported programs are likely designed to address impacts to wetlands or other aquatic resources that are outside of the scope of §404.[6] The statistics contained in this report, however, concern only the 38 approved, active in-lieu fee programs that were assessed and interviewed for this study (*see* table 2, next page; *see also* Appendix A).

As of October 2005, there were formally authorized in-lieu fee programs in 24 of the 38 Corps districts.[7] Of these 24 districts, however, only 17 districts are signatories to one or more in-lieu fee authorizing agreements. The other seven districts contain in-lieu fee programs authorized by state or local agencies or statutes without the direct involvement of the Corps district. These state and local programs generally provide mitigation for aquatic resource impacts that fall outside the scope of §404.

In 2001, ELI also sought to identify all the in-lieu fee programs in the country.[8] Five years later, only 28 of the 87 in-lieu fee programs identified are still classified by the Corps or the original program sponsor as active in-lieu fee programs. Of the remaining 59 programs identified in 2001, 27 in the Buffalo district have been terminated, 16 in the New Orleans district have been reclassified as mitigation banks, 1 has been suspended until its authorizing instrument is modified to comply with the 2000 ILF Guidance,[9] 8 are no longer classified as in-lieu fee programs,[10] 2 are sold-out,[11] 2 are inactive for other reasons,[12] and 3 were terminated during the planning stage before becoming active[13] (*see* figure 1, page 19).

2. Ad Hoc In-Lieu Fee Mitigation

This report was designed to address the approved, active in-lieu fee programs that were operating as of October 2005. In keeping with the 2000 ILF Guidance, ELI defined these programs as those that operate under a formal arrangement established between a regulatory agency and a third party sponsor under which permittees are allowed to satisfy their compensatory mitigation obligations by providing funds to the sponsor in-lieu of conducting permittee-responsible mitigation or purchasing credits from an approved mitigation bank. The 2000 ILF Guidance recommends the establishment of an in-lieu fee agreement whenever fees are accepted by a third party in-lieu of the permittee conducting permittee-responsible mitigation or purchasing credits from a mitigation bank, whether under an individual or general permit.[1]

Table 2. The 38 in-lieu fee programs covered in this study, organized by state. This table lists the program sponsor, the name of the program, and the year that the program was first authorized.

State	Program Sponsor	Program Name	Year
Alaska	Great Land Trust	Great Land Trust In-Lieu Fee Program	1998
	Kachemak Heritage Land Trust	Kachemak Heritage Land Trust In-Lieu Fee Program	1999
	Southeast Alaska Land Trust	Southeast Alaska Land Trust In-Lieu Fee Program	1998
	The Conservation Fund	Alaska Wetlands Conservation Fund	2004
	The Conservation Fund	The Conservation Fund In-Lieu Fee Program	1998
Arizona	Arizona Game and Fish Department	Arizona Game and Fish Department Mitigation Trust Account	2004
	Tucson Audubon Society	Tucson Audubon Society Conservation Account	2004
California	California Coastal Conservancy	Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program	2003
	Mission Resource Conservation District	Santa Margarita Arundo Control Fund	1999
	Mountains Restoration Trust	Mountains Restoration Trust In-Lieu-Fee Program	2004
	National Fish and Wildlife Foundation[2]	South Pacific Wetlands Conservation Account	2000
	Ojai Valley Land Conservancy	Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program	1999
	Sacramento County Planning and Community Development Department	Wetlands Mitigation Trust Fund	1991
	San Gabriel Mountains Regional Conservancy	San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program	2004
	Santa Monica Mountains Conservancy	Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program	2000
Florida	Audubon of Florida	Florida Keys Environmental Restoration Trust Fund	1998
	Florida Department of Environmental Protection/Water Management Districts	Florida Department of Transportation In-Lieu-Fee Program	1996
Georgia	Georgia Land Trust Service Center	Georgia Wetlands Trust Fund	1997
Illinois	DuPage County Department of Economic Development and Planning, Division of Environmental Concerns	DuPage County In-Lieu-Fee Program	2000
Kentucky	Kentucky Department of Fish and Wildlife Resources	In-Lieu-Fee Program for Stream and Wetland Mitigation	2003
	Louisville and Jefferson County Metropolitan Sewer District	Stream Corridor Restoration Fund	2000
	Northern Kentucky University, Environmental Resource Management Center	Stream Corridor Restoration Fund	1999
Louisiana	Louisiana Department of Natural Resources Coastal Management Division	Louisiana Department of Natural Resources In-Lieu-Fee Program	1995
Maryland	Maryland Department of the Environment	Nontidal Wetland Compensation Fund	1991
Missouri	Missouri Conservation Heritage Foundation	Stream Stewardship Trust Fund	1999
Montana	Montana Department of Fish, Wildlife and Parks	Montana Wetlands Legacy Trust Fund	2004

Table 2. (continued from previous page)

State	Program Sponsor	Program Name	Year
New Jersey	New Jersey Wetland Mitigation Council	Land Use Regulation Program	1988
North Carolina	North Carolina Ecosystem Enhancement Program	Stream and Wetland In-Lieu Fee Program	1998
	North Carolina Ecosystem Enhancement Program	Stream and Wetland In-Lieu Fee Program for NCDOT	2003
Ohio	The Wilderness Center	Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative	2004
Oregon	Oregon Department of State Lands	In-Lieu Fee Mitigation Program	1993
Pennsylvania	National Fish and Wildlife Foundation	Pennsylvania Wetlands Replacement Project	1996
South Carolina	Historic Ricefields Association	Historic Ricefields Association In-Lieu Fee Mitigation Program	2000
	National Audubon Society	Beidler Forest In-Lieu-Fee Mitigation Program	2000
Tennessee	Tennessee Wildlife Resources Foundation	Tennessee Stream Mitigation Program	2002
Texas	The Nature Conservancy	The Nature Conservancy In-Lieu-Fee Program	1998
Virginia	The Elizabeth River Project	Elizabeth River Restoration Trust	2004
	The Nature Conservancy	Virginia Aquatic Resources Trust Fund	1995

Despite the 2000 ILF Guidance, ELI's research revealed that many Corps districts continue to allow some form of ad hoc or project-specific, one-time payments to third parties in-lieu of permittee-responsible mitigation or purchase of credits from a mitigation bank.[3] In its 2001 report, GAO defined ad hoc arrangements as those that allow one-time projects or one-time payments that operate "without a formal agreement between the Corps and the third party."[4] Similar findings have been reported in a number of earlier studies.[5] As part of ELI's *2005 Status Report*, 28 of the 38 Corps districts responded to questions about ad hoc in-lieu fee mitigation. Of these 28 districts, 17 (61 percent) reported that they either allow ad hoc in-lieu fee mitigation or that they would consider allowing it.[6,7] ELI did not ask, nor did the districts report, under what circumstances these in-lieu fee arrangements were approved. Eleven districts (39 percent) reported that they do not allow ad hoc in-lieu fee mitigation (*see* figure 2, next page).[8]

In their responses, many of the districts did not directly address the issue of whether or how they monitor and verify ad hoc in-lieu fee arrangements, making comparisons among the districts difficult. Of the districts that did provide information, three specifically noted that they require monitoring plans[9] and two reported that they have a pre-approval process to evaluate the proposed mitigation sponsor or project.[10] The Memphis and Walla Walla districts reported that they require confirmation that funds are transferred to the mitigation provider and the Walla Walla district also stated that it conducts a field inspection to confirm that mitigation projects are completed successfully. Nonetheless, the methods used by each district for establishing these ad hoc arrangements and the requirements for monitoring and verification the projects vary considerably.[11]

A substantial amount of confusion continues to persist in the districts as to whether or not the 2000 ILF Guidance directs regulators to establish formal agreements between the permittee and third parties in every circumstance under which fees are exchanged in-lieu of the permittee satisfying compensatory miti-

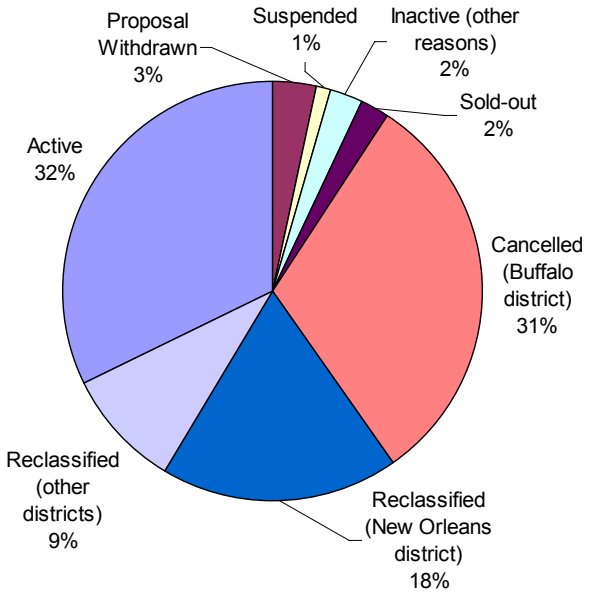

Figure 1. In-Lieu Fee Program Status After Four Years: The 2005 status of the 87 approved in-lieu fee programs identified in *Banks and Fees* (2001).

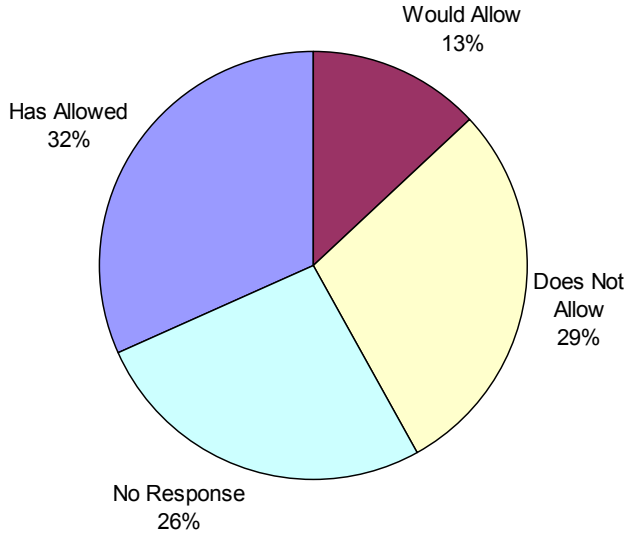

Figure 2. Project-Specific In-Lieu Fee Prevalence: Proportion of the 38 Corps districts that reported that they have allowed, would allow, or do not allow project-specific in-lieu fee arrangements.

gation obligations through other means. Earlier studies have noted this inconsistent interpretation of the ILF Guidance as well.[12] This study does not provide a review of these ad-hoc in-lieu fee arrangements (*see also* box 2: In-Lieu Fee in Florida and Regional Offsite Mitigation Areas (ROMAs), page 22).

BOX 1: IN-LIEU FEE MITIGATION IN THE CORPS' LOS ANGELES DISTRICT[1]

As of May 2006, the U.S. Army Corps of Engineers' Los Angeles district had approved 16 in-lieu fee programs (9 in Arizona; 7 in California), and there were 3 additional programs pending (2 in Arizona; 1 in California). Nine of these programs (over half) were approved in the six-month period between September 2005 and March 2006. These approved programs represent somewhere around 35 percent of the total number of approved in-lieu fee programs in the country.

The district, however, experiences a relatively low number of permitted impacts on an annual basis. The Corps reported that in Fiscal Year 2003, the district approved 120.38 acres of permitted impacts and required 270.89 acres of mitigation.[2] To date, no mitigation banks have been proposed in Arizona. The district reports that there are several factors that contribute to making in-lieu fee an attractive mitigation option.

Prior to the issuance of the September 2005 report on mitigation by the Government Accountability Office,[3] the Los Angeles district allowed in-lieu fee payments on a project-specific basis. Following release of the report, which criticized the Corps for not having in place formal agreements to document in-lieu fee programs, the district sought to establish agreements with many of the entities, particularly land trusts, which had been accepting fees. According to Los Angeles district staff, this accounts for the number of programs approved in the six month period from September 2005 through March 2006.

In the California portion of the district, in-lieu fee mitigation is primarily used for impacts approved under Nationwide Permits, which generally have small permanent impact acreages (i.e., under 0.5 acres), and for temporal and temporary impacts (e.g., disturbance of a riparian area that will be replanted). District staff feel that utilizing this mitigation method for small or temporal impacts is generally far more ecologically preferable than requiring permittees to complete on- or off-site mitigation that is a fraction of an acre and is likely overseen by the developer or a homeowners association.

In addition, establishment of mitigation banks in Arizona and southern California is costly, time consuming, and demand for credits is low. These economic factors create large disincentives for establishing banks, which require significant upfront investments to acquire land, and seek and secure approval of banking instruments. Land costs in the region, particularly in coastal California and the areas surrounding Tucson and Phoenix, can be prohibitively high, making the upfront investment in acquiring land insurmountable for some groups. Once a bank is established, the demand for credits is relatively low because of the limited number of permits issued annually, making it difficult to recoup upfront investments. Finally, the process of having a bank instrument reviewed and approved, particularly in the Corps' South Pacific Division, requires a significant time investment and a high degree of technical expertise. The costs and level of technical expertise make establishment of a bank in advance prohibitively expensive, particularly for non-profit conservation organizations.

In both Arizona and California, there are limited sites available to locate mitigation banks. In Arizona, there are few mitigation opportunities on private land since such a large portion of the land base in the state is publicly held (state or federal lands) or comprises Native American Tribal reservations. In addition, restoration opportunities are limited because of severe hydrologic constraints and a limited supply of naturally occurring wetlands for acquisition and restoration, while creation has an extremely limited chance of success.

The Los Angeles district also strongly supports the role private, non-profit conservancies and land trusts play in carrying out compensatory mitigation. These groups have significant expertise in brokering complicated land acquisitions and acting as long-term stewards of ecologically sensitive lands. The costs associated with establishing a bank, all outlined above, are a particular challenge for these groups. Land trusts have significant success raising the funds necessary to acquire large and expensive parcels of land for protection and restoration from diverse private and public sources. Raising these funds to establish a mitigation bank where all costs incurred are upfront, however, presents a significant fundraising challenge.

The district offered an example of one program they view as a success, which has received considerable criticism over the years. The Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program (sponsored by the California Coastal Conservancy) was established in March 2003. As required by the program's authorizing agreement, the Conservancy embarked on an extensive watershed analysis to identify and prioritize potential mitigation sites. The study utilized a number of ranking criteria for site selection, including the appropriateness of the site ecologically, the presence of a willing seller, and compatible surrounding land uses. The study took three years to complete and, as a result, this in-lieu fee program received significant criticism for not expending funds in a timely manner. The watershed analysis that was developed, however, is likely to result in mitigation projects that are sustainable and ecologically meaningful over the long term.

3. Pre-/Post-Guidance Comparisons

Of the 38 active in-lieu fee programs interviewed for this study, 27 operated as active in-lieu fee arrangements prior to the release of the 2000 ILF Guidance.[1] Two of these programs did not have formally approved authorizing instruments in place at the time, however, and three of the programs have updated their authorizing instruments since the 2000 ILF Guidance was released. As a result, 22 of the programs covered in this study (58 percent)[2] operate under authorizing instruments that were established prior to the release of the 2000 ILF Guidance and 16 programs (42 percent)[3] operate under authorizing instruments that were established after the 2000 ILF Guidance was issued.[4]

Of the 27 in-lieu fee programs that were active prior to release of the 2000 ILF Guidance, 13 programs (48 percent) reported that some structural aspect of the program has changed since its establishment.[5] For example, four programs reported that their authorizing instrument or authorizing statute has been updated or is in the process of being updated,[6] two programs that were not formally authorized in 2000 now have authorizing instruments,[7] and two program sponsors have created new in-lieu fee programs specifically to mitigate for impacts caused by state departments of transportation.[8] Two programs have been informally suspended or put on hold,[9] and four programs reported smaller changes, including a new bank account to replace the original trust fund used by one program,[10] an increase in the fees charged by one program and an expansion of the program's scope,[11] a consolidation of the administration of one program,[12] and other minor procedural changes for the remaining program.[13]

Furthermore, 10 of the 27 programs that were active as of 2000 (37 percent) reported that the program was affected by the 2000 ILF Guidance. Of these ten, two reported that the ILF Guidance led to formal authorization of an already existing program through establishment of a formal instrument.[14] Two other programs reported that the ILF Guidance led to revisions to the authorizing instruments and shifted the programs to focus more on restoration and less on preservation as the preferred mitigation type.[15] Four programs noted that the Corps has been more attentive to certain aspects of the program since release of the 2000 ILF Guidance.[16] More specifically, two of these programs noted an increased focus on the time horizons and completion schedule for mitigation projects[17] and one program reported that it is now run more on a case-by-case basis than a programmatic basis, with the Corps requiring approval of all mitigation projects prior to funds being expended.[18] Finally, one program reported it has seen an increase in payments recently because the Corps seems to be requiring compensatory mitigation more frequently,[19] while one county-level program that provides mitigation for impacts that fall outside the scope of §404 reported that it has seen a decrease

in use of the program because the Corps is asserting jurisdiction over smaller impacts that formerly fell outside the §404 threshold.[20]

Of the 11 programs that were authorized after the release of the 2000 ILF Guidance, 5 reported that the guidance had a substantial effect on the program.[21] These programs reported that their development was shaped by the guidance, that the guidance has encouraged more formal approval procedures for individual permits, and that the guidance has fostered greater involvement and attention from the Corps district regulators who oversee the programs.

BOX 2: IN-LIEU FEE IN FLORIDA AND REGIONAL OFFSITE MITIGATION AREAS (ROMAS)

The State of Florida has multiple in-lieu fee mitigation arrangements, including: (1) an in-lieu fee program exclusively for impacts resulting from Florida Department of Transportation activities;[1] (2) a limited program under which "the department or water management districts may accept the donation of money as mitigation only where the donation is specified for use in a duly noticed environmental creation, preservation, enhancement, or restoration project, endorsed by the department or the governing board of the water management district, which offsets the impacts of the [permitted] activity;"[2] and (3) Regional Offsite Mitigation Areas, or ROMAs.[3] ROMAs may be sponsored by the Florida Department of Environmental Protection, a Water Management District, or a local government. State law requires the establishment of a memorandum of agreement (MOA) between the sponsor and the appropriate state regulatory agency when the ROMA will provide compensatory mitigation for five or more permittees, or for 35 or more acres of impacts.[4]

ROMAs function much like in-lieu fee programs, where permit applicants pay money to a sponsor in-lieu of conducting mitigation, and collected funds are used toward the implementation of a larger mitigation project. However, the required elements of a ROMA MOA are similar to those required for public or private mitigation banks. ROMAs must identify and secure mitigation sites in advance, describe the work that will be conducted on the sites, including a timeline for completing the work, define a geographic service area, and provide environmental success criteria, monitoring and long-term management plans, and credit assessments.[5] In addition, ROMA instruments must include a "full cost accounting of the project."[6] This provision, however, may be waived when a ROMA is designated as mitigation for private, single-family residential construction (not incorporated residential development).[7] In these cases, ROMAs can supplement costs with grants, land holdings or other funding sources, thus subsidizing mitigation costs for individual single-family residential users. Unlike mitigation banks, ROMAs must be sponsored by a public entity and are not required to provide the same financial assurances.

As of June 2006, ROMAs currently or formerly in existence in Florida include the following:

- South Loxahatchee Slough Restoration Project, Palm Beach County Department of Environmental Resource Management, "Jupiter Farms" ROMA MOA - single family use;
- Unit 11, Palm Beach County Department of Environmental Resource Management, ROMA MOA - general use (credits sold out – may modify to increase credit);
- Rookery Bay Aquatic Preserve ROMA (pending);
- Lee County ROMA (pending);
- South Golden Gate Estates, Collier County Soil and Water Conservation District, ROMA MOA – single family use;
- Pennsuco and CREW, South Florida Water Management District (pre-2000 ROMAs - inactive);
- Cummer Trust, St. Johns River Water Management District, ROMA MOA (inactive); and
- St. Johns River Water Management District also conducted various small pre-2000 ROMA projects, <5 permits or 35 acres.

IV. Characterization of the Active Programs

1. Credit Sales and Mitigation Activities Undertaken

ELI's 2005 survey of the Corps districts sought to determine the types of credits that existing in-lieu fee programs are approved to sell (i.e., only wetland credits, only stream credits, both wetland *and* stream credits, or other credit types, as dictated by the programs' authorizing instruments). Corps districts provided ELI with information on credit types for 43 programs. Of these, 15 (35 percent) sell only wetland credits, 17 (40 percent) sell both wetland and stream credits, 4 (9 percent) sell only stream credits, and 7 (16 percent) sell wetland, stream, and other credit types (*see* figure 3, next page).[1]

Of the 38 in-lieu fee programs reviewed for this report, the first was authorized in 1988, although most programs have been authorized within about the last decade (*see* figure 4, page 25).[2] Thirty-seven programs (97 percent) provided financial data to ELI and reported that, in total, they have collected approximately $302 million since the programs were authorized to accept fees. Five of these programs, however, account for $249 million, or 82 percent of all the fees collected (*see* Appendix C).[3] Of the 38 programs interviewed, 22 programs (58 percent)[4] were able to provide information about the amount of impacts being offset by their program since its inception. These programs reported that they have accepted funds to offset 2,466 acres of wetland impacts, 173,149 linear feet of stream impacts, and 43 acres of stream impacts (*see* Appendix D).[5] Twenty-eight of the interviewed programs (74 percent) were able to quantify the amount of mitigation conducted using in-lieu fees.[6] They reported that they have conducted (initiated or completed) mitigation activities on 28,579 acres of wetlands, 1,789,245 linear feet of stream, and 756 acres of stream and riparian corridor (*see* Appendix D).[7]

The 2000 ILF Guidance states that the funds collected by in-lieu fee programs "should ensure a minimum of one-for-one acreage replacement."[8] In 2001, GAO reported that although 11 of 17 Corps districts with in-lieu fee programs stated that the programs were achieving greater than a 1:1 mitigation ratio, the data provided to the agency did not support these claims.[9]

In this study, only 13 of the 38 programs interviewed (34 percent)[10] provided sufficient data to allow for a relatively accurate calculation of wetland replacement ratios.[11] Considering these 13 programs only, we estimate that 9 programs (69 percent)[12] currently meet the goal of no net loss.[13] Replacement ratios for these programs vary from 1:1[14] to 3.8:1[15], and average 1.9:1. By our definition, the remaining four programs have wetland replacement ratios of 0:1, either because they have not yet conducted any mitigation activities,[16] or because the only mitigation they have conducted is preservation (acquisition).[17]

Of the programs that conduct stream mitigation, four reported sufficient data to calculate stream replacement ratios. Two of these programs are currently meeting or exceeding a no net loss goal with replacement ratios of 2.8:1 and 1:1.[18] The other two programs do not currently meet the no net loss goal because a large percentage of their stream mitigation is classified as enhancement or preservation. If only restoration and creation activities are considered, these programs are currently attaining replacement ratios of 0.3:1 and 0:1.[19] The replacement ratios for stream mitigation programs are not necessarily directly comparable, how-

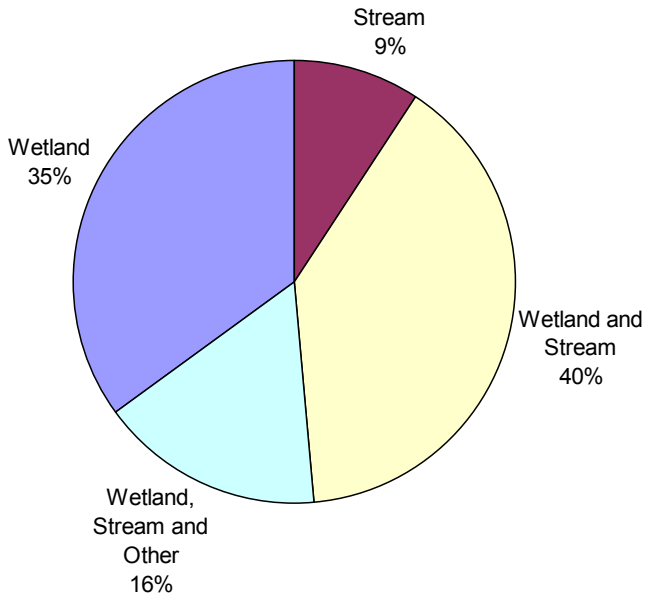

Figure 3. In-Lieu Fee Program Credit Types: Proportion of 43 approved, active in-lieu fee programs (as of October 2005) that sell: only wetland credits; only stream credits; both wetland and stream credits; and wetland, stream, and other credits. Approved credit type data were provided by the Corps districts and were not available for three programs.

ever, because definitions of mitigation types for stream mitigation are not standardized and may vary between Corps districts (*see* box 3: Stream Mitigation, page 30).[20]

Furthermore, in-lieu fee programs are at times utilized in conjunction with permittee-responsible mitigation or other methods of mitigation, such that the mitigation performed by the in-lieu fee program is supplemental to other mitigation methods that, on their own, may fulfill the no net loss policy. The replacement ratios reported here for wetland and stream in-lieu fee mitigation do not attempt to evaluate the overall, programmatic role of in-lieu fee programs in supporting the no net loss goal.

Although most programs did not report enough information to allow us to calculate the replacement ratio achieved by the program, 28 of the 38 programs interviewed were able to provide ELI with an estimate of the types of mitigation they use (*see* Appendix D). Of these, six programs reported that mitigation is achieved entirely through preservation.[21] Five of these six programs have agreements that indicate that preservation is the preferred or anticipated method of mitigation. In addition, one program reported that 75 to 99 percent of mitigation is achieved through preservation,[22] and an additional 5 programs reported that 50 to 74 percent of mitigation is achieved through preservation.[23]

Of the 38 programs interviewed for this study, 19 were able to provide ELI with both an estimate of the types of mitigation used and the total amount of wetland mitigation they have conducted.[24, 25] These statistics allow us to estimate that nationwide, approximately 52 percent of the wetland mitigation conducted by

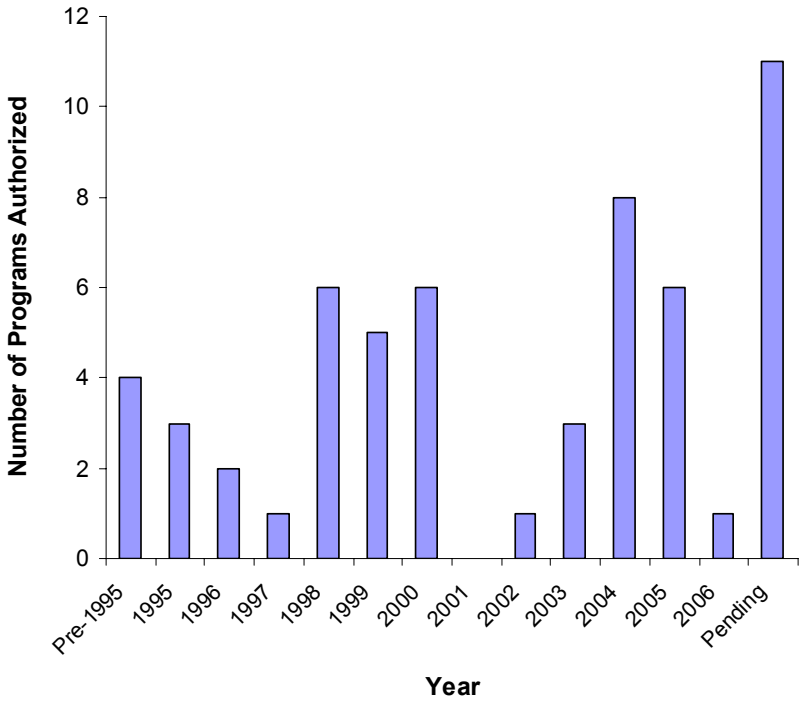

Figure 4. Date of In-Lieu Fee Program Authorization: The number of in-lieu fee programs authorized each year from 1995 through March 2006. The chart includes 8 programs that were not covered in this study and 11 programs that were pending as of May 2006.

in-lieu fee programs is preservation (acquisition), 33 percent is restoration, 13 percent is enhancement, and 2 percent is creation (*see* figure 5, next page).[26]

Another way to evaluate the relative contributions of the different types of mitigation is to compare the total amount of mitigation provided through each type of mitigation (restoration, creation, enhancement or preservation) with the total amount of aquatic resource impacts being offset by that mitigation. Eleven of the 38 programs interviewed for this study (29 percent) reported enough data to allow for this calculation.[27] These eleven programs are responsible for offsetting 470 acres of wetland impacts out of the 2,466 acres of wetland impacts reported to us in this study (19 percent). Overall, these 11 programs mitigate 200 percent of wetland impacts through restoration, 19 percent of wetland impacts through creation, 149 percent of wetland impacts through enhancement and 601 percent of wetland impacts through preservation (*see* figure 6, next page). It is important to note, however, that these 11 programs are not necessarily a representative sample of all wetland in-lieu fee programs and these statistics may not accurately reflect nationwide trends.

Of the programs that conduct stream mitigation, 7 provided the total amount of mitigation and an estimate of mitigation types,[28] allowing us to calculate that approximately 49 percent of stream mitigation conducted by these programs is achieved through restoration, 45 percent through preservation, and 6 percent through enhancement (*see* figure 7, page 27).[29] None of the programs reported that they conduct stream

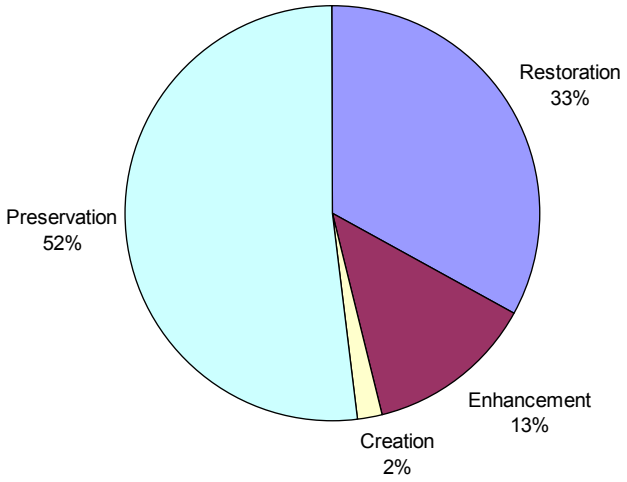

Figure 5. Wetland Mitigation Types: Proportion of wetland mitigation accomplished by in-lieu fee programs through restoration, creation, enhancement and preservation, calculated as percentages of the total amount of wetland mitigation performed. These data were reported by 19 of the 38 programs covered in this study; these 19 programs have conducted a total of 27,830 acres of wetland mitigation.

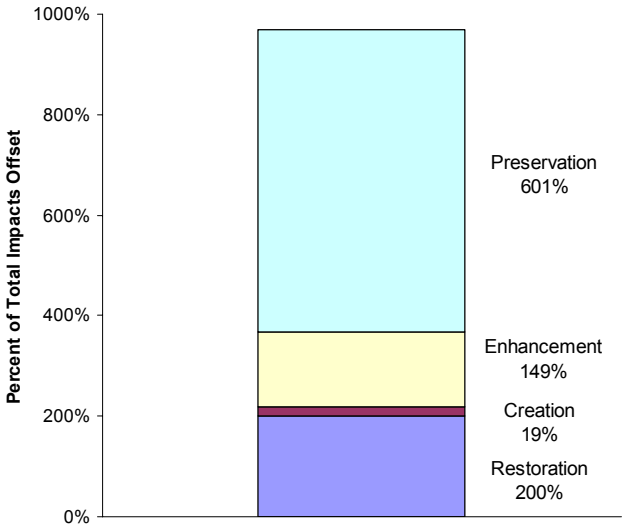

Figure 6. Wetland Mitigation Types Relative to Impacts Offset: Proportion of wetland mitigation accomplished by some in-lieu fee programs through restoration, creation, enhancement and preservation, calculated as percentages of the total amount of wetland impacts being offset by these programs. These data were reported by only 11 of the 38 programs covered in this study; these 11 programs have conducted a total of 4,553 acres of wetland mitigation to offset 470 acres of wetland impacts.

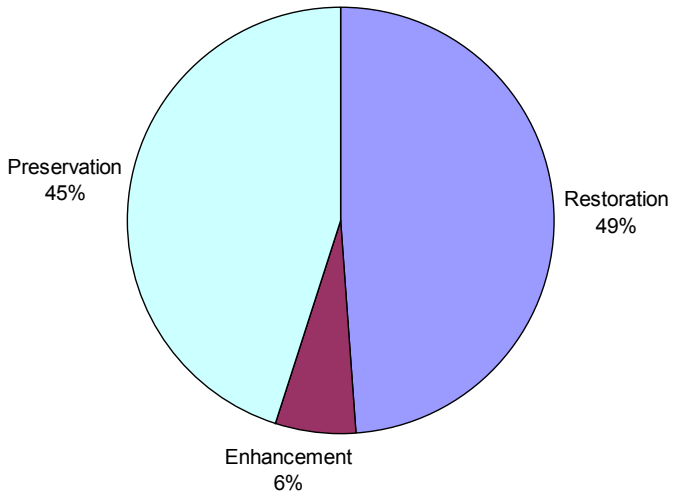

Figure 7. Stream Mitigation Types: Proportion of stream mitigation accomplished by in-lieu fee programs through restoration, enhancement and preservation, calculated as percentages of the total amount of stream mitigation performed. These data were reported by 7 of the 38 programs covered in this study; these 7 programs have conducted a total of 1,787,692 linear feet of stream mitigation.

creation. Three of the stream mitigation programs provided enough data to compare the type of mitigation used by the programs with the amount of stream impacts being offset through the programs.[30] These three programs represent 100 percent (173,149 linear feet) of the stream impacts that were reported to us in linear feet. Overall, these programs mitigate 61 percent of stream impacts through restoration, 30 percent of stream impacts though enhancement and 29 percent of stream impacts through preservation (*see* figure 8, next page). Like the wetland mitigation programs, however, these stream mitigation programs are not necessarily a representative sample of all stream in-lieu fee programs and these statistics may not accurately reflect nationwide trends.

In addition to the programs that perform wetland and stream mitigation through restoration, creation, enhancement and preservation, two of the programs interviewed for this study provide alternative forms of mitigation. In California, the Mission Resource Conservation District's Santa Margarita Arundo Control Fund conducts invasive species removal and remediation as a form of wetland mitigation.[31] In Virginia, the Elizabeth River Project's Elizabeth River Restoration Trust has conducted a mix of oyster reef creation (22 percent), oyster reef restoration (22 percent), and sediment remediation (55 percent) as mitigation for dredging and open water filling activities.[32]

Thirty-two of the 38 programs interviewed (84 percent)[33] reported that a total of 631 individual projects have been initiated and/or completed with fees collected by the programs. Completed projects are defined as those for which all of the performance standards have been met. Twenty-four of the programs that have collected $195 million (about 65 percent of the total amount collected by all programs) also reported the amount of funds that they have allocated or spent to date.[34] Considered together, these programs reported

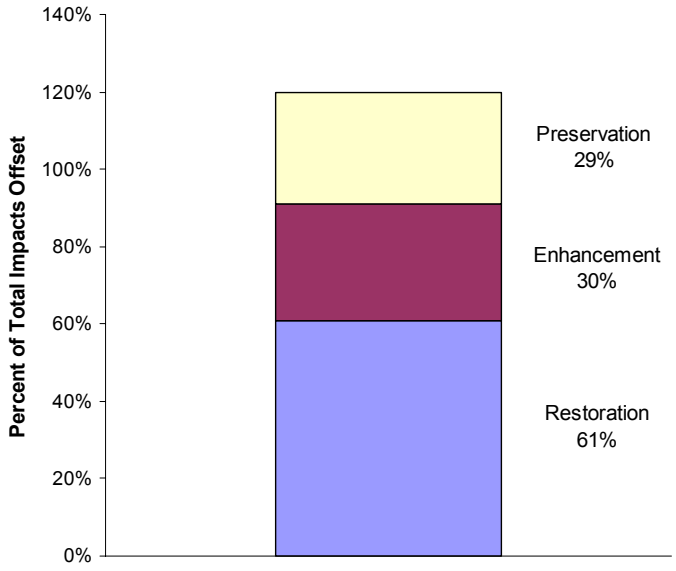

Figure 8. Stream Mitigation Types Relative to Impacts Offset: Proportion of stream mitigation accomplished by some in-lieu fee programs through restoration, creation, enhancement and preservation, calculated as percentages of the total amount of stream impacts being offset by these programs. These data were reported by only 3 of the 38 programs covered in this study; these 3 programs have conducted a total of 206,283 linear feet of stream mitigation to offset 173,149 linear feet of stream impacts.

that about $88 million (45 percent) of collected funds have been expended or allocated and about $107 million (55 percent) has not yet been allocated to mitigation projects. When considering the programs individually, the percentage of funds expended or allocated varied from zero to one hundred percent and averaged about 47 percent. Nine programs provided enough information to compare the percentages of funds expended with the replacement ratios achieved by the programs. These programs are not a representative sample of all in-lieu fee programs, but they are informative illustrations of how effectively funds are being used to replace lost aquatic resources (*see* table 3, next page).

2. Program Sponsors

The 38 approved in-lieu fee programs reviewed by ELI are sponsored by a variety of agencies and organizations. Twenty-one of the programs (55 percent) are sponsored by nonprofit conservation organizations or land trusts,[1,2] 10 (26 percent) are sponsored by state natural resource agencies,[3] 3 (8 percent) are sponsored by state fish and wildlife agencies,[4] 3 (8 percent) are sponsored by local governments/agencies,[5] and 1 (3 percent) is sponsored by a university (*see* figure 9, page 30).[6]

All of the 38 in-lieu fee programs analyzed are formally authorized through an agreement, legislation, or regulations. Twenty-seven of the 38 programs (71 percent) are authorized through an in-lieu fee agreement.[7] Of the remaining programs, 4 (11 percent) are authorized through state legislation[8] and 1 (3 per-

Table 3. Comparison of replacement ratios with percentage of funds expended or allocated for nine programs.

In-Lieu Fee Program	Percent of Funds Expended or Allocated	Replacement Ratio Achieved (measurement type)
California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003)	48%	2:1 (wetland acres)
Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997)	51% (all for preservation)	0:1 (wetland acres) 0:1 (linear feet of streams)
Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999)	0%	0:1 (wetland acres)
Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999)	71%	1:1 (acres of invasive species removal)
Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004)	0%	0:1 (wetland acres)
National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996)	99%	1.2:1 (wetland acres)
New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988)	95%	3.2:1 (wetland acres)
The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995)	35%	3.8:1 (wetland acres) 0.3:1 (linear feet of streams)
Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004)	100%	1:1 (wetland acres)

cent) is authorized through state agency regulations,[9] while 4 programs (11 percent) are authorized both under state legislation and an agreement.[10] Finally, 2 of the programs reviewed (5 percent) have been authorized through county resolutions or ordinances (*see* figure 10, page 31).[11]

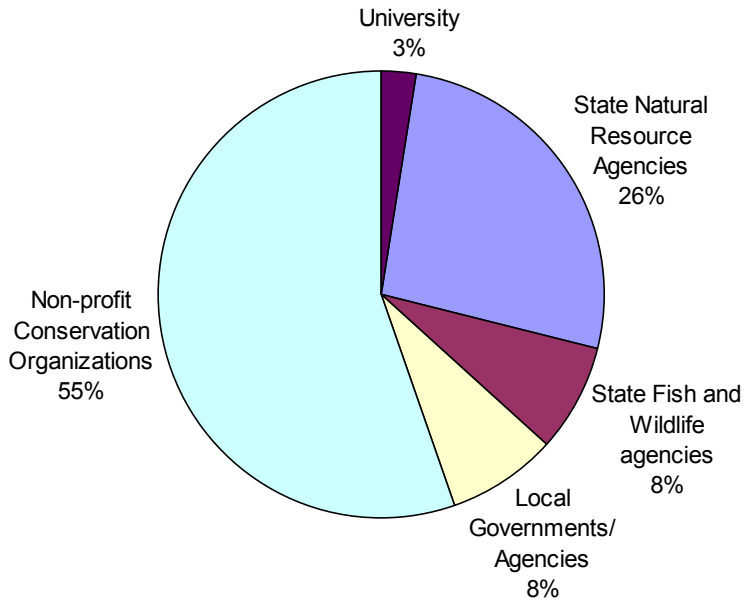

Figure 9. In-Lieu Fee Program Sponsors: Proportion of the 38 in-lieu fee programs covered in this study that are sponsored by non-profit conservation organizations, state natural resource agencies, state fish and wildlife agencies, local governments or agencies, and universities.

BOX 3: STREAM MITIGATION

According to the Corps districts, at least 29 in-lieu fee programs are approved to offset stream impacts, sometimes in addition to offsetting impacts to wetlands or other resources. A handful of these programs reported that they are indeed being used to offset stream impacts or conduct stream mitigation. Existing guidance on in-lieu fee mitigation, however, may not sufficiently address the particular needs of stream mitigation programs.

Of the programs that reported stream impacts or mitigation, most measure impacts and mitigation in linear feet, but at least one uses acreage. Definitions for stream mitigation are also variable. For example, bank stabilization or the establishment of riparian buffers may be considered stream restoration by some programs and be considered stream enhancement by other programs. Furthermore, many programs subdivide their stream mitigation activities into categories that do not clearly fit into the traditional mitigation types (i.e., restoration, creation, enhancement or preservation).[1]

In RGL 02-2, the Corps clearly defined how the four types of wetland mitigation may or may not be used to meet the no net loss goal. For stream mitigation, however, differences in definitions for mitigation types and variance in how programs report stream impacts and mitigation make it difficult to assess whether stream mitigation activities are supporting the no net loss goal. These variations also make comparisons between stream mitigation programs more complicated. As a result, understanding what factors contribute to the success of these programs or hinder their ability to replace impacts to streams presents a challenge.

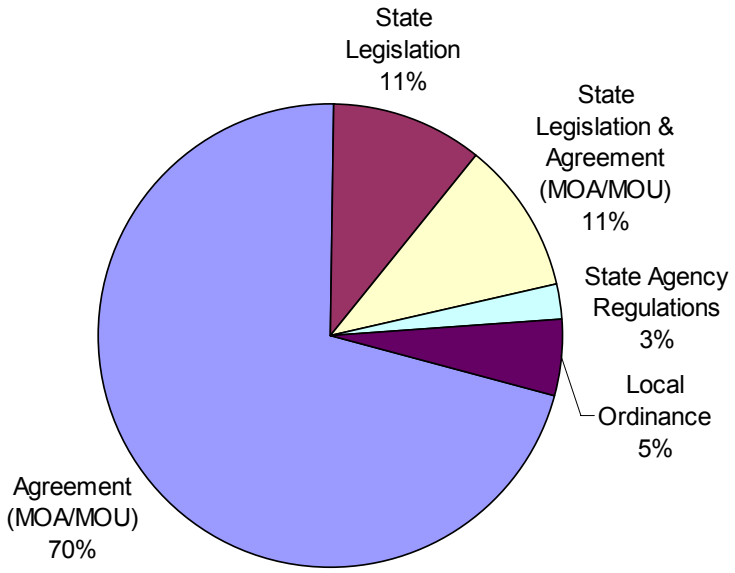

Figure 10. In-Lieu Fee Program Authorizing Instruments: Proportion of the 38 in-lieu fee programs covered in this study that are authorized by a formal agreement (including memoranda of agreement or memoranda of understanding), state legislation, state legislation and a formal agreement, state agency regulations, and local ordinances.

3. Characteristics of In-Lieu Fee Funds

The authorizing agreements establishing 35 of the 38 approved in-lieu fee programs (92 percent) stipulate that the funds are collected and retained in a designated trust fund, restricted account, or account separate from other funds of the sponsoring organization or agency.[1] Several of the authorizing agreements specifically stipulate the type of fund in which the fees must be retained, such as a Federal Deposit Insurance Corporation insured bank account (12 programs);[2,3] more generally in an interest-bearing escrow account in an investment instrument or banking institution (7 programs);[4, 5] an account within the state treasury (3 programs);[6,7] or in a separate holding account or fund (9 programs).[8,9] Twenty-three of the 38 agreements (61 percent) clearly stipulate that interest earned by the accounts or funds will remain with the fund to fulfill the purposes of the program.[10]

Twenty-seven of the 35 agreements with designated trust funds (77 percent) clearly indicate that the funds are protected from being used for purposes other than those outlined in the agreement.[11] Several of the agreements stipulate the specific categories of activities for which the funds may be used. For example, the agreement establishing the Los Angeles County Aquatic Resource In-Lieu Fee Mitigation Program states:

> In-lieu Fee program funds shall be used solely for activities directly related to aquatic habitat creation, restoration, or enhancement, to include exclusively the following activities: land acquisition; purchase of easements; purchase of water rights; development of mitigation and monitoring plans; permit fees; implementation of mitigation and

monitoring plans; administrative costs; and long term management of mitigation parcels.[12]

Other agreements include language stating that the collected fees may only be used for the purposes outlined in the agreement or, for example, "to implement practical plans to protect, purchase, enhance, restore, and monitor selected sites."[13] An additional four programs, all approved by the Corps' Los Angeles District,[14] use similarly restrictive language, but more vaguely state that the funds shall "*generally* be allocated toward the restoration, enhancement, and/or creation of riparian/freshwater wetland habitats, including preparation of restoration plans, site maintenance and monitoring."[15]

4. Types of Impacts Eligible for Paying into In-Lieu Fee Programs

Twenty-six of the 38 approved in-lieu fee programs (68 percent) restrict the types of permitted impacts that can make payments to the programs as an option for fulfilling their compensatory mitigation requirements.[1] These restrictions apply to the types of permits under which the impacts are approved, size and types of permitted impacts, and the types of permittees that can pay into the program.

Nine of these 26 programs specify that only impacts authorized through specific types of §404 permits can pay into the programs. Three program agreements state that impacts from nationwide permits, regional general/general permits, and individual permits are all eligible to contribute to the programs.[2] Two programs accept funds only through impacts from nationwide and regional general/general permits,[3] and the agreement for one of these programs, the Mountains Restoration Trust In-Lieu-Fee Program in California, states that "In no circumstance, will the Program be used to mitigate for impacts to waters of the U.S. authorized under a standard individual permit."[4] One program only accepts fees authorized through regional general/general permits and individual permits;[5] one only for nationwide permits;[6] and two only for regional general/general permits.[7]

Three programs only accept fees for impacts authorized by specific types of permittees. Two of these programs, the Florida Department of Transportation In-Lieu-Fee Program, and the North Carolina Stream and Wetland In-Lieu Fee Program for the North Carolina Department of Transportation, only accept payments for impacts authorized for road construction.[8] The Conservation Fund's Alaska Wetlands Conservation Fund (Airport Improvement Projects) program "applies only to proposed airport development projects within [the Federal Aviation Administration's] jurisdiction."[9]

Eight programs accept payments for impacts permitted through local regulatory programs, delegated state programs, state wetland, stream or water quality programs, or other regulatory programs. Two county-level programs accept fees for impacts permitted through a local ordinance.[10] One program, the New Jersey Land Use Regulation Program, accepts fees for impacts through a state program that has delegated authority under §404.[11] Four programs accept fees for impacts authorized through state permitting programs.[12] For example, the Pennsylvania Wetlands Replacement Project accepts fees only for impacts permitted through the state's Chapter 105 permit program,[13] and the Tennessee Stream Mitigation Program accepts fees for impacts permitted under the Tennessee Water Quality Act.[14] Finally, the Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative accepts fees for a variety of state and federal programs: "such as state or local wetland regulatory programs; the Wetland Conservation Provisions of the Food Secu-

rity Act, Public Law 99-198 as amended; the NPDES program; and Superfund remedial actions, on a project specific basis."[15]

Twelve in-lieu fee programs (32 percent) restrict the size of the permitted impacts that are eligible to satisfy their compensatory mitigation requirements through payment to the programs. Of these, one only accepts fees for impacts smaller than 0.33 acres or for which the Corps does not claim jurisdiction;[16] three for 0.5 acres or less;[17] four for 1.0 acre or less;[18] one for less than 3.0 acres of waters (including wetlands) other than streams and/or less than 2,000 linear feet of streams;[19] one for 7.0 acres or less;[20] one for less than 10.0 acres;[21] and one for permitted impacts that fall below the acreage threshold provided for in the regional permit in the Corps' Chicago District.[22]

Six in-lieu fee programs, all in the Corps' Los Angeles District, explicitly prohibit the programs from being used to mitigate for impacts to "unique aquatic resources," such as vernal pools, eelgrass, and tidal/estuarine wetlands.[23] The agreement authorizing the Beidler Forest In-Lieu-Fee Mitigation Program in South Carolina states that although the program may sell credits to mitigate for losses of all coastal plain wetland types, it may not accept payments for impacts to "emergent marshes, salt water tidal systems and Carolina Bays."[24] The Virginia Aquatic Resources Trust Fund agreement states that the sponsor, The Nature Conservancy, "may decline funds from any actions that negatively impact Virginia Natural Heritage Element occurrences."[25]

At least four in-lieu fee agreements state that the programs are not an eligible method for satisfying mitigation requirements if credits are available from an approved mitigation bank.[26] Regulations guiding implementation of the Louisiana Department of Natural Resources In-Lieu-Fee Program, for example, state that payment to the Coastal Mitigation Account may only be permissible "when a permittee is unable to provide mitigation through an appropriate individual project or through an appropriate mitigation bank or area located within the Louisiana Coastal Zone or Louisiana Coastal Wetlands Conservation Plan area."[27]

The Kentucky Stream Corridor Restoration Fund was established to accept in-lieu fee payments for Department of the Army permittee "as mitigation for unavoidable stream impacts in Northern Kentucky."[28] The Elizabeth River Restoration Trust in Virginia focuses primarily on providing compensation for "permitted impacts to tidal submerged lands and tidal wetlands …"[29] Finally, one program, the Santa Margarita Arundo Control Fund, may be used to compensate for "temporary impacts to aquatic resources" or "permanent impacts to aquatic resources of one acre or less…"[30] In practice, the program is used solely for temporary impacts.[31]

5. Additional Sources of Funding

ELI found that 23 of the 38 in-lieu fee agreements reviewed (61 percent) allow the programs to accept funds from sources other than permittees.[1] Seventeen programs (45 percent) accept funds generated by the resolution of enforcement and compliance actions initiated by the Corps.[2] Ten programs, including some of those that accept fines as stated above, state rather vaguely that they accept "other funds."[3]

The Kentucky In-Lieu-Fee Program for Stream and Wetland Mitigation states that the Fund "may also receive state appropriations, gifts, grants, federal funds, revolving funds, and other funds from both public and private sources."[4] The agreement guiding the Alaska Wetlands Conservation Fund (Airport Improvement Projects) states that the program "may receive deposits from private donations, agency grants, legislative appropriations, or other sources for the conservation of high value wetlands."[5] The legislation guiding operation of the North Carolina Stream and Wetland In-Lieu Fee Program states that the Wetland Restoration Fund "shall provide a repository for monetary contributions and donations or dedications of interests in real property to promote projects for the restoration, enhancement, preservation, or creation of wetlands and riparian areas and for payments made in lieu of compensatory mitigation…"[6] The fund will also "provide a repository for appropriations from the General Assembly, monetary contributions, donations of property, payments to satisfy compensatory mitigation requirements and grants."[7] The Louisiana Department of Natural Resources In-Lieu-Fee Program may "accept funds from public or private sources as authorized by law, including grants and donations…"[8] Finally, the Tennessee Stream Mitigation Program may accept "donations or other non-competitive grants from entities not applying for permits…"[9]

The Elizabeth River Restoration Trust also accepts funds from other sources, such as mitigation funds for permitted impacts that fall outside the scope of the agreement. According to the agreement, these funds "…may be placed in the Trust and used to augment the goals of this Agreement or the [Elizabeth River Project's] Watershed Action Plan for the Elizabeth River, but are not subject to the requirements of this Agreement."[10] The agreement goes on to state:

> While mitigation funds paid to the Trust as in-lieu fee payments should be sufficient, at a minimum in the aggregate, to offset the impacts for which they are provided, the Elizabeth River Project's goal and the Trust's goal will be to go beyond the minimum to achieve improvements to the Elizabeth River ecosystem.[11]

In other words, the program is structured to ensure that permitted impacts are offset by the fees that have been collected for those impacts and that additional funds support only activities that go *beyond* what is required to offset permitted impacts.

6. Service Areas

The 2000 ILF Guidance states that in-lieu fee agreements should stipulate "geographic service areas."[1] Service area is defined in the 1995 Banking Guidance as "the area (e.g., watershed, county) wherein a bank can reasonably be expected to provide appropriate compensation for impacts to wetlands and/or other aquatic resources."[2] ELI's study found that 29 of the 38 approved in-lieu fee program agreements (76 percent) do in fact utilize delineated service areas.

Of these 29 programs, 21 (55 percent of the total number of programs) rely upon watershed boundaries, many of which also include an ecoregional consideration. For example, 11 of these 21 programs utilize hydrologically accepted watershed boundaries: 5 use U.S. Geological Survey hydrologic unit codes (HUC),[3] 5 use watersheds defined by state programs,[4] and 1 uses a general watershed definition.[5] Another 10 programs utilize watershed-based service areas that are geographically defined.[6] For example, the service areas for the Historic Ricefields Program are the Little Pee Dee, Pee Dee, and Waccamaw River basins,[7] and the Elizabeth River Restoration Trust utilizes the Elizabeth River watershed.[8]

None of the programs examined rely exclusively on ecoregions. Eight programs utilize political boundaries to define the service area, such as a county or multi-county area (4 programs),[9] an entire state or portion of a state (3 programs),[10] or a multi-state region (1 program).[11]

Regardless of whether or not the service area is defined, at least 12 of the agreements reviewed stipulate that projects should be, for example, "located as close to specific impact sites as is appropriate and practicable."[12,13]

7. Program Administration

Some concerns over in-lieu fee programs center on the costs associated with administering the programs. ELI determined that 32 of the 38 programs (84 percent), allow the sponsoring agency or organization to use some portion of the funds collected for program administration.[1] Twenty of these 32 programs place an upper limit or percentage limit on how much of the fund can be diverted to administrative expenses,[2] while 12 programs do not specify a limit.[3] Percentage limits range from 2 percent to 15 percent.

Five of the 38 programs, each authorized under state law or county resolution, support administrative expenses through general funds or other revenues.[4] One program did not specify how program administration is supported in its authorizing agreement or in ELI's interview with the program administrator.[5]

When funds are permitted for administrative uses, the agreements often further specify those uses. Several agreements indicate that funds may be used for establishment and operation of the program, staff time for carrying out program responsibilities, and "expenses for day to day management" of the program, such as bookkeeping, mailing expenses, printing, office supplies, computer hardware or software, property appraisals, training, travel, and technical consultation. For example, the agreement authorizing the Elizabeth River Restoration Trust of Virginia states that "…the Trust shall receive an overhead fee amounting to five percent of the funds when the funds are deposited. The fee will come from the funds and is deemed to represent and reimburse reasonable overhead and related administrative costs of administering the Trust."[6]

8. Site Identification

The 2000 ILF Guidance states that the in-lieu fee sponsor should supply the Corps with information in advance on potential sites where specific restoration projects are planned,[1] and more specifically, the agreements should contain: "potential site locations, baseline conditions at the sites, and general plans that indicate what kind of wetland compensation can be provided."[2] ELI's survey identified only one program (3 percent) that identified a site in advance.[3] This program, the Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, is a hybrid between a bank and an in-lieu fee program. The agreement states that at the time of the agreement's approval the sponsor had already preserved a specific wetland site,[4] and had developed "using an ecosystem and watershed approach, a plan to promote the preservation, restoration and enhancement of wetlands and streams throughout the Sugar Creek watershed."[5]

Three additional programs (8 percent) either indicate general areas where mitigation projects may be carried out or reference watershed plans that do so.[6] (As stated above, the Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative in Ohio also references a completed watershed plan.[7]) For example, the Beidler Forest In-Lieu-Fee Mitigation Program in South Carolina, sponsored by The National Audubon Society, was designed to protect wetland resources in the Four Holes Swamp sub-basin, where the organization already owns an 11,400-acre wetland nature preserve in conjunction with The Nature Conservancy. The agreement identifies specific tracts of land, or general blocks and corridors, which it proposes to preserve, restore, or enhance.[8] Although the Calleguas Creek Watershed program does not list sites in the agreement itself, the Corps reported that the California Coastal Conservancy did conduct an analysis of the entire watershed and ranked potential mitigation sites in advance, based on adjacent land uses, ownership, biological resources, and other measures.[9] The Elizabeth River Restoration Trust agreement references a watershed action plan that "will be used as a guide for considering mitigation projects."[10]

The 2000 ILF Guidance states that in-lieu fee mitigation projects "should be planned and developed to address the specific resource needs of a particular watershed."[11] Although only 4 programs identified sites in advance, or reference a watershed plan that does so, 10 program agreements (26 percent) indicate that the sponsor will embark on an assessment of watershed needs to identify sites.[12] For example, the agreement establishing the Georgia Wetlands Trust Fund, sponsored by the Georgia Land Trust Service Center, states that the sponsor will "establish a procedure for selection of wetland projects," that will "take into consideration the various geographic areas of the state, watersheds, tributaries, and any information which would identify critical areas needing protection and restoration…"[13] Two program agreements state that the sponsor will identify projects based on the specific resource needs of the watershed[14] and another five state that the sponsor will generally work with the Corps to identify potential projects, generally in advance.[15]

Selection of adequate sites for locating in-lieu fee projects remains an obstacle to program funds being spent in a timely manner. In-lieu fee programs have, however, developed several innovative mechanisms for identifying and/or evaluating mitigation sites

Three programs solicit landowner interest in identifying wetland mitigation sites by issuing requests for proposal or soliciting interest by letter. The legislation establishing the Louisiana Department of Natural Resources In-Lieu-Fee Program, for example, states "Unless a plan for the use of compensatory mitigation funds has been accepted by the secretary…the secretary shall request proposals for the utilization of compensatory mitigation money…in writing…."[16] The Pennsylvania Wetlands Replacement Project posts notices on the Department of Environmental Protection's web site soliciting interested landowners to nominate projects in specific watersheds.[17] Northern Kentucky University's Stream Corridor Restoration Fund indicated that the program sent out a letter to each county executive to generate interest in the program.[18] One additional program, Maryland's Nontidal Wetland Compensation Fund, indicated that it is working to develop a request for proposal program.[19]

Twelve in-lieu fee program agreements (32 percent)[20] indicate that the program sponsor will establish a site selection committee or coordinate with a diverse group of partners to, in one example, "aid in prioritizing and selecting projects."[21] The Montana Wetlands Legacy Trust Fund agreement, for example, states that the sponsor shall:

> Identify aquatic resource conservation projects that serve the purposes of this Agreement and develop these projects through an ILF Committee and in conjunction with other Legacy partners, including land management agencies, land trusts, environmental conservation organizations, and others.[22]

The agreement further states that the in-lieu fee Committee shall be comprised of all the signatory agencies (U.S. Army Corps of Engineers; Montana Department of Fish, Wildlife and Parks; Montana Department of Environmental Quality; Montana Wetlands Legacy Trust Fund) and may also include, but is not limited to, representatives of: the Montana Department of Natural Resources and Conservation, Montana Department of Transportation, Montana Association of Conservation Districts, U.S. Fish and Wildlife Service, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S.D.A. Forest Service, Natural Resources Conservation Service, Federal Highway Administration, Fort Peck Tribes, and Confederated Salish-Kootenai Tribes.[23] Finally, the sponsor must also "invite and encourage participation in in-lieu fee Committee meetings by habitat restoration oriented non-profit organizations."[24]

Other advisory committees are established to more generally advise the sponsor on aquatic habitat protection and restoration. The agreement establishing the Elizabeth River Restoration Trust, for example, established a Technical Advisory Committee to review technical data and approve site selection.[25] The program also reports that the sponsor has contacted landowners around possible sites and worked with the surrounding community, local governments, and regulatory agencies to seek support on the potential remediation projects.[26]

Four additional program agreements reference the establishment of mitigation review teams, or rely upon already established mitigation review teams for the review and approval of the programs and mitigation sites.[27] These review teams are structured similarly and include many of the same parties as those established by the 1995 Mitigation Banking Guidance for the review, approval, and oversight of mitigation banks.[28] The agreement establishing the Kentucky In-Lieu-Fee Program for Stream and Wetland Mitigation, for example, calls for the establishment of a Mitigation Review Team (MRT) to "approve proposed projects and to perform a yearly review of ongoing and completed projects."[29] The Tennessee Stream Mitigation Program agreement establishes a Stream Mitigation Review Team (SMRT) to "oversee the development, operation, and management of the [Stream Mitigation Program].[30] The Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative agreement states that the Corps' Huntington District assembled an In Lieu Fee Mitigation Review Team (ILRFT) to review and approve the program and to review and approve proposed mitigation sties.[31]

Finally, the Historic Ricefields Program relies upon the Mitigation Bank Review Team (MBRT) already established to provide review, approval, and oversight of mitigation banks in South Carolina.[32] Although the agreements establishing the Florida Keys Environmental Restoration Trust Fund and The Nature Conservancy In-Lieu-Fee Program in Texas do not establish or rely upon an already established mitigation review team, they do require the Corps to solicit comments on proposed projects from the same parties that generally comprise MBRTs.[33]

Several in-lieu fee program agreements provide a method for prioritizing potential mitigation sites once they are identified.[34] For example, the agreement authorizing the Tennessee Stream Mitigation Program stipulates that mitigation project selection should be prioritized according to the following criteria: ecore-

gion of impacted site(s); stream order of impacted site(s); urban to rural stream ratio of impacted site(s); and whether or not a stream site is impaired (303(d) listed).[35]

9. Replacing Lost Aquatic Resource Functions

The 2000 ILF Guidance explicitly states that in-lieu fee funds "should be used for replacing wetland functions and values and not to finance non-mitigation programs and priorities (e.g., education projects, research)."[1] Only if funds are used to directly replace lost functions and values can these programs support the no net loss goal and "ensure a minimum of one-for-one acreage replacement..."[2] ELI surveyed the 38 in-lieu fee agreements to determine whether or not they make explicit mention of funds being used for activities other than those directly related to replacing aquatic resource functions and values. For the purposes of this discussion, "direct replacement of aquatic resource functions and values" includes the following activities:

- Restoration, enhancement, creation, and preservation (through purchase of property, conservation easement, deed restriction, or development rights) of wetland acres;
- Restoration, enhancement, creation, and preservation (through purchase of property, conservation easement, deed restriction, or development rights) of stream corridors;
- Implementation of best management practices for *streams*, such as construction of fences to protect waters from livestock;
- Development of wetland or stream mitigation plans;
- Maintenance and monitoring of mitigation sites;
- Fees associated with securing a permit for conducting mitigation activities;
- Acquisition-related costs (e.g., appraisals, surveys, title insurance, etc.);
- Purchase of credits from mitigation banks;[3] and
- Administrative costs, which may include bank charges associated with the establishment and operation of the program, staff time for carrying out program responsibilities, and expenses for day to day management of the program, such as bookkeeping, mailing expenses, printing, office supplies, computer hardware or software, property appraisals, training, travel, and technical consultation.

It should be noted that, for the purposes of this discussion, "direct replacement of aquatic resource functions and values" *does not include* upland preservation,[4] prioritization or identification of mitigation opportunities, research, education and outreach, or implementation of best management practices for wetlands because these activities do not *directly* contribute to the replacement of lost aquatic resource acres and functions.

Of the 38 agreements reviewed, 35 (92 percent) make explicit mention of how collected funds should be used.[5] Of the 35 agreements that clearly state how in-lieu fee funds may be used, 15 agreements (43 percent) specify that funds may be used only for the direct replacement of aquatic resource functions and values, as defined above,[6] while 20 agreements (57 percent) allow funds for activities other than those directly related to replacing aquatic resource functions and values.[7] Three agreements (8 percent) made no explicit

mention of whether funds can be used for purposes other than replacing aquatic resource functions and values.[8]

GAO's 2001 study identified three Corps districts with in-lieu fee programs that used funds "for activities, such as research and/or education, that do not directly mitigate adverse impacts."[9] The 20 agreements identified by ELI that explicitly allow the use of funds for such activities, including the following (note that these programs allow *one or more* of the following activities that do not directly replace aquatic resource functions and values):

- Upland preservation (16 agreements);[10,11]
- Identification or prioritization of mitigation opportunities (3 agreements);[12]
- Surface water projects (2 agreements);[13]
- Removal of hazardous structures and vessels from water resources (1 agreement);[14]
- Nonpoint source pollution reduction (1 agreement);[15]
- Upland restoration and/or enhancement (3 agreements);[16]
- Research (1 agreement).[17]

In addition, agreements occasionally include language allowing for discretion in allocating funds. For example, the Tennessee Stream Mitigation Program does not specifically allow the use of funds for activities other than those that directly replace aquatic resource functions and values; however, the agreement states that "[a] wide variety of projects may be funded" by the program.

Eighteen of the 38 agreements (47 percent) specify a preference for or anticipate which type of mitigation shall to be used to compensate for impacts to aquatic resources (i.e., restoration, creation, enhancement, or preservation). Eight agreements (21 percent) state that preservation is the preferred method of mitigation or that the majority of wetland projects are anticipated to be preservation projects.[18] Two agreements (5 percent) specify that priority will be given to projects accomplished through restoration, creation, enhancement, and preservation (in that order), with upland preservation considered only if it will provide significant benefits to aquatic resources.[19] Five agreements (13 percent) state that restoration, enhancement, and preservation are preferred methods of mitigation, with preservation and upland restoration/preservation considered only under specified circumstances.[20] One agreement (3 percent) specifies that all funds will be used for restoration only,[21] while another agreement (3 percent) specifies that all funds will be used for restoration and/or enhancement.[22] It is interesting to note that the latter agreement, which authorizes the Santa Margarita Arundo Control Fund In-Lieu Fee Mitigation Program, stipulates that funds should be used solely for restoration/enhancement through the removal of invasive weed species.[23] Performance criteria listed in the agreement include ratios of native and non-native cover.[24]

Finally, the Elizabeth River Project agreement is unique in that it lists two tiers of projects for consideration: the first, preferred tier includes: the "purchase, protection, restoration, and/or creation of wetlands, mud flats, oyster reefs, and other aquatic resources;" the "purchase, protection, and restoration of upland buffers adjacent to aquatic resources;" the "restoration or remediation of contaminated river bottoms, including restoration of contaminated uplands located adjacent to, and affecting the aquatic resources of, the Elizabeth River;" and "reduction of toxic, nutrient laden, or other undesirable stormwater runoff." The second, lower-priority tier of potential in-lieu fee projects includes: "removal of derelict structures and vessels that

produce an environmental detriment or hazard to the Elizabeth River;" "other mitigation projects…approved by the Corps and [State Water Control Board];" and "the purchase of credits from an approved mitigation bank."[25]

The remaining 20 agreements (53 percent) do not specify the mitigation type for which in-lieu fee funds can or should be utilized.[26]

10. Method of Determining Credits

The 2000 ILF Guidance states that in-lieu fee agreements should specify a methodology for determining credits.[1] ELI found that only 3 of the 38 program agreements reviewed (8 percent) describe a methodology for determining credits,[2] most likely because they are not structured to generate wetland acres and functions in excess of what is required to replace permitted impacts. In fact, at least six program instruments explicitly state that the program sponsor should delay using funds until sufficient funds have been collected to support meaningful projects (*see above:* § IV.20. Completing Mitigation in a Timely Manner). Moreover, few in-lieu fee programs complete mitigation in advance of impacts (*see above:* § IV.8. Site Identification).

For example, the agreement for the Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative (Ohio) states that credits should be determined in the following manner: "For wetlands, one mitigation credit shall be equivalent to one acre of restored wetland or two acres of enhanced or preserved (category three) wetlands. The final quantification of mitigation credits will occur at the end of restoration and/or enhancement activities and will be shown on as-built surveys for each site."[3] The agreement establishing the Historic Ricefields Association In-Lieu Fee Mitigation Program (South Carolina) requires that each proposed project plan must include a "draft credit calculation table based on the current version of the appropriate [Charleston District's Mitigation Standard Operating Procedures'] table factors (e.g., preservation, restoration, or creation tables). The credit calculation will take into account and specify wetland type and location factors."[4]

11. Requirements to Achieve One-to-One Replacement

The 2000 ILF Guidance states that "Funds collected should ensure a minimum of one-for-one acreage replacement."[1] Meeting this standard can be accomplished by requiring in-lieu fee programs to meet a minimum 1:1 ratio of acreage mitigated to acreage impacted or by seeking to meet no net loss on a project- or programmatic-level. ELI found that 8 of the 38 in-lieu fee agreements (21 percent) outline the program's required mitigation ratio (*see* table 4, next page).[2] Nonetheless, it is important to note that programs with agreements that define mitigation ratios or endorse the no net loss goal may or may not actually meet those goals in practice (*see above:* § IV.1. Credit Sales and Mitigation Activities Undertaken above for a discussion of the replacement ratios *achieved* by some programs).

Eight programs reference the national goal of achieving no net loss of wetlands (including two that also include a ratio of at least 1:1).[3] These statements indicate a commitment to meeting a minimum one-to-one replacement ratio, if not on a project-by-project basis, than programmatically. The regulations guiding

Table 4: Programs with agreements that specify required mitigation ratios.

In-Lieu Fee Program	Mitigation Replacement Ratios
DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000)	"Mitigation for developments within or affecting a wetland shall provide for the replacement of the wetland environment lost to development at a minimum proportional rate of three to one (3:1) for critical wetlands….and one and a half to one (1.5:1.0) for regulatory wetlands."[4]
Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995)	For monetary contributions, the "determination of anticipated unavoidable net loss of ecological value, in [average annual habitat units], that would result from the proposed activity shall be made in accordance with"[5] a quantification of anticipated net gains and unavoidable net losses of ecological value.[6]
Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991)	Mitigation ratios for in-kind creation and restoration: Emergent non-tidal wetlands = 1:1~ Scrub/shrub non-tidal wetlands = 2:1~ Forested non-tidal wetlands = 2:1~ Mitigation ratios for wetlands designated as Non-tidal Wetlands of State Special Concern: Emergent non-tidal wetlands =2:1~ Scrub/shrub non-tidal wetlands = 3:1~ Forested non-tidal wetlands = 3:1[7]
Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999)	The program may use funds to support "removal or treatment of invasive weeds at a minimum 1:1 ratio of acreage mitigated to acreage impacted…"[8]
National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996)	1:1 replacement of acres within each of the 20 Subbasins as identified by the State Water Plan[9]
Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993)	State regulations indicate that "[t]here is no established ratio for indirect [Compensatory Wetland Mitigation] using conservation in lieu. The acreage needed under conservation in lieu will be determined on a case-by-case basis through negotiation between the applicant and the Department."[10] However, the program sponsor reports that the program uses the ratio requirements established used for compensatory mitigation used, unless other justification is provided.[11] Restoration: 1:1 Creation: 1.5:1 Enhancement: 3:1 Enhancement of cropped wetland 2:1[12]

Table 4. (continued from previous page)

In-Lieu Fee Program	Mitigation Replacement Ratios
The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004)	"in-lieu fee compensation or unavoidable loss of wetlands due to ADOT&PF sponsored FAA-funded airport improvement projects in Alaska shall be… compensated at a 1:1 ratio."[13]
The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004)	"Category three" wetlands: Restoration 1:1 Enhancement or preservation 2:1 "..ratios are expected to range from 1.5:1 to 3:1, depending on the location and assessment of impacted wetlands."[14]

Maryland's Nontidal Wetland Compensation Fund state that it is the goal of the program to "attain no net overall loss in nontidal wetland acreage and function, and to strive for a net resource gain in nontidal wetlands."[15] The agreement authorizing the Virginia Aquatic Resources Trust Fund states that "a primary goal is to ensure that there is no net loss of acreage, functions, and values for compensatory mitigation accomplished for impacts to aquatic resources of the type and within the watersheds of those impacts."[16]

12. Determining Fees

The 2000 ILF Guidance states that in-lieu fee agreements should contain: "methods for determining fees…"[1] Fourteen of the 38 in-lieu fee programs (37 percent) include specific or fairly specific information about how fees will be assessed.[2] Four programs authorized in the Corps' Los Angeles District, for instance, contain similar language and refer to the national no net loss goal. The agreement establishing the San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, for example, states:

> The SGMRC shall determine the cost-per-acre for the required mitigation. To meet the federal goal of 'no net loss' of the nation's aquatic resource functions and values, the cost-per-acre must be sufficient to cover the expected costs of compensatory mitigation. Accordingly, the cost per acre should be based on a reasonable estimate of funds needed for land acquisition, project planning, construction, monitoring, maintenance and contingencies.[3]

An additional program, the Kentucky In-Lieu-Fee Program for Stream and Wetland Mitigation,[4] does not describe the method for assessing fees in the agreement itself, but the Corps has developed a stream assessment protocol for headwater streams in Eastern Kentucky (*Eastern Kentucky Stream Assessment Protocol*),[5] which is provided to permittees to determine how much must be paid into the in-lieu fee program. Sixteen of the 38 in-lieu fee agreements reviewed (42 percent) explicitly state that the assessed fees will include the costs of land acquisition.[6]

Three of these 14 programs state that they base their fees on the costs of comparable mitigation being conducted in the area where the permitted impacts occurred. The agreement for the Missouri Stream Stewardship Trust Fund states that the payment will be based on "market forces and the anticipated cost of stream

Table 5: The fee schedules for 10 in-lieu fee programs with authorizing instruments that specify fees.

In-Lieu Fee Program	Fee Schedule Provided in Authorizing Agreement or Provided by Program Sponsor
DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000)	$175,000 per acre of required mitigation.[7]
Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996)	Staring with the base year of 1996, the fee was established at $75,000 with yearly increases pegged to the Consumer Price Index. Currently $90,219 per acre.[8]
Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995)	Based on a formula: (anticipated unavoidable net loss of ecological value, measured in average annual habitat units) × (annual base mitigation cost) × (project years) = compensatory mitigation cost. The annual base mitigation costs are provided in a table based on the hydrologic basin and wetland type.[9]
Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991)	Varies by county, but ranges from $11,100 to $58,000 per acre.[10]
National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996)	Wetland impacts from .05 acre to .10 acre: $ 500.00 Wetland impacts from .10 acre to .20 acre: $1,000.00 Wetland impacts from .20 acre to .30 acre: $2,500.00 Wetland impacts from .30 acre to .40 acre: $5,000,00 Wetland impacts from .40 acre to .50 acre: $7,500.00[11]
North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); *also* Stream and Wetland In-Lieu Fee Program, North Carolina (1998)	Depends on the aquatic resource type and ranges from $13,123 per acre for non-riparian wetlands to $131,230 per acre for saltwater wetlands and $219 per linear foot of stream.[12]
Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991)	$35,000 per acre.[13]
Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002)	$50 to $200 per linear foot, depending on the nature of the project, for example, culverts, channel relocations, or impoundments.[14]
The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004)	"in-lieu fee compensation or unavoidable loss of wetlands due to ADOT&PF sponsored FAA-funded airport improvement projects in Alaska shall be made as a fee of $500 per acre…."[15]

mitigation projects (e.g., restoration, enhancement, preservation) in the area where stream impacts were permitted."[16] The Montana Wetlands Legacy Trust Fund agreement states "The initial fee structure…will be established using costs incurred in recent years by private wetland and riparian restoration firms and agency and conservation organization programs."[17] Finally, the legislation establishing the Oregon Department of State Lands In-Lieu-Fee Program states, "The amount to pay to the Department to provide [Compensatory Wetland Mitigation] shall be the average cost of credits available from all active mitigation banks in the state as compiled annually by the Department."[18]

Sixteen of the 38 in-lieu fee program agreements reviewed (42 percent) indicate that the program sponsor is responsible for determining the price charged for credits.[19] Five program agreements (13 percent) indicate that the Corps is responsible for determining the amount of the in-lieu fee to be paid to the sponsor.[20] Three programs' agreements state that the sponsor will determine the fee in coordination with the Corps or an interagency review team (8 percent)[21] and the remaining 15 programs (39 percent) do not indicate the party responsible for assessing fees.

Ten of the 38 in-lieu fee agreements (26 percent) reviewed include a set fee, fee schedule, formula for assessing fees, or have formally adopted a fee schedule (*see* table 5, previous page).[22]

13. Protection in Perpetuity

The 2000 ILF Guidance states that mitigation sites developed with in-lieu fees "should be protected in perpetuity with appropriate real estate arrangements (e.g., conservation easements, transfer of title to Federal or State resource agency or non-profit conservation agency)."[1] ELI found that 19 of the 38 in-lieu fee agreements (50 percent) reviewed clearly require mitigation sites to be protected in perpetuity.[2] Although the remaining 19 agreements (50 percent) do not specifically require sites to be protected in perpetuity, many of the program sponsors indicated that sites are permanently protected in practice. For example, the Tucson Audubon Society In-Lieu Fee program indicated that it purposely conducts mitigation exclusively on publicly-owned lands, in cooperation with local governments, as a way to guarantee permanent protection.[3] Similarly, although the DuPage County in-lieu fee program's authorizing ordinance does not require protection in perpetuity, program administrators typically require permanent protection as part of the county permit process.[4] Other programs generally seek to protect mitigation sites in perpetuity but, with no requirement in the authorizing agreements, there is no guarantee that permanent protection is achieved in every instance.

Many in-lieu fee programs explicitly stipulate the types of site protection mechanisms that must be used. Of the 19 agreements that require perpetual protection, 15 specify one or more protection mechanisms—6 list fee title acquisition, 13 list conservation easements, and 10 list deed restrictions or restrictive covenants.[5] One program, sponsored by the Oregon Department of State Lands, also specifically lists "long-term management agreements with land trusts" and "public ownership" as appropriate permanent protection mechanisms.

Four of the 19 agreements that require perpetual protection do not stipulate the use of particular protection mechanisms.[6] Administrators of these programs indicated that the programs had used fee title acquisition,

conservation easements, deed restrictions, protected covenants, or signed agreements between the program sponsor and the landowner to provide permanent protection to mitigation sites.

Of the 19 in-lieu fee programs that do *not* require perpetual protection in their authorizing agreements,[7] 18 are sponsored by state or local agencies,[8] land trusts,[9] or non-profit organizations.[10] For example, the agreement authorizing the Southeast Alaska Land Trust In-Lieu Fee program does not explicitly state that mitigation sites must be protected in perpetuity. Rather, the agreement states that the group's mission statement includes land protection that "*usually* takes the form of acquisition or donation of conservation easements, or in some cases, ownership."[11] State natural resource agencies and non-profit conservation organizations do, however, divest themselves of land. Although state agencies generally must go through a time consuming process that is under the scrutiny of the public to do so, divestment is not an uncommon practice. In addition, many non-profit organizations, although unlikely to sell lands for non-conservation purposes, do often turn over long-term ownership of sites to other entities, such as state natural resource agencies.

14. Remedial Action Provisions and Contingency Funds

The 2000 ILF Guidance states that the Corps should ensure that in-lieu fee agreements "contain distinct provisions that clearly state that the legal responsibility for ensuring mitigation terms are satisfied fully rests with the organization accepting the in-lieu-fee."[1] The ILF Guidance also states that the in-lieu fee agreement, or site specific plan, should contain "financial, technical and legal provisions for remedial actions and responsibilities (e.g., contingency fund)."[2]

Nineteen of the 38 program agreements reviewed (50 percent) contain provisions that assign responsibility for mitigation success and/or provide for contingency measures. Twelve agreements assign responsibility for compensatory mitigation success or for remedial actions to the program sponsor.[3] For example, the Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative (Ohio) states that the sponsor "will manage . . . the implementation of any necessary remedial activities,"[4] and that if the Corps and the state regulatory program determine that a site is failing, the sponsor "will implement necessary remedial measures."[5] Three agreements contain contingency plans;[6] three agreements require contingency measures to be included in the site-specific mitigation plan;[7] and one agreement requires the sponsor to coordinate any contingency plan with a Mitigation Bank Review Team in the event of project failure.[8]

Five programs indicate that the sponsor will secure appropriate financial assurances to support these remedial measures.[9] For example, the legislation establishing the Louisiana Department of Natural Resources In-Lieu Fee Program requires the sponsor to secure a letter of credit or surety bond until the permit recipient demonstrates compliance with the permit conditions.[10] The guidance directing the Maryland Nontidal Wetland Compensation Fund states that, "Performance Bonds may be required of some applicants/permittees, and will be handled on a case-by-case basis."[11] The agreement establishing the Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative states that the program sponsor will "reserve funds for each mitigation site for these [remedial] purposes in its Endowment Fund."[12] The agreement approving the Elizabeth River Restoration Trust states that the sponsor will "allocate sufficient reserve funds in its project budgets . . . to provide for repair and remediation of mitigation projects in the event they do not meet the

stated performance standards and success criteria."[13] The Virginia Aquatic Resources Trust Fund agreement states that the sponsor will maintain "an amount equal to 20% of the restoration costs for each project" in the fund for the entire monitoring period. The funds are set aside "to repair or remedy unsuccessful or failing mitigation projects."[14] The agreement does, however, state that the sponsor, The Nature Conservancy, "shall not be required to give bond or security pursuant to this [memorandum of understanding]."[15]

Other programs do not require sponsors to secure appropriate financial assurances. Despite the fact that the Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative (Ohio) agreement assigns responsibility for remedial measures and states that the sponsor will reserve funds for this purpose in its endowment fund, the agreement also notes that the sponsor "has a proven record as a natural resource management and land trust entity. Therefore, financial assurances in the form of a performance bond, insurance or the like will not be required."[16]

15. Long-Term Management and Maintenance Provisions

The 2000 ILF Guidance states that the in-lieu fee agreement, or site-specific plan, should contain "financial, technical and legal provisions for long-term management and maintenance (e.g., trust)."[1] ELI found that 22 of the 38 program agreements (58 percent) include mention of long-term management and maintenance arrangements.[2] Only 5 of these agreements (13 percent of the total number of programs reviewed), however, outline specific, required long-term management and maintenance actions (e.g., invasive species removal, establishment of a maintenance account for individual mitigation projects, etc.)[3,4] An additional 8 program agreements (21 percent) require provisions to be outlined in mitigation project plans.[5] The 9 remaining programs (24 percent) mention long-term management and maintenance as a general requirement but do not give further specification.[6] Sixteen program agreements (42 percent) do not include any language on long-term management and maintenance.[7]

Thirteen of the 38 agreements (34 percent) assign long-term management and maintenance responsibilities to a specific entity, most often the program sponsor or an entity designated by the program sponsor and approved by the Corps.[8] For example, the regulations describing the Oregon Department of State Lands (ODSL) in-lieu fee program assign responsibility for monitoring, managing, and assuring the success of mitigation sites to ODSL. However, the regulations also allow ODSL to "transfer or extend the Department's responsibility for the compensatory wetland mitigation plan to another person or governmental agency."[9]

Finally, 16 of the 38 agreements (42 percent) specify that collected funds may be used for stewardship duties.[10] Of these, two authorize the creation of a long-term endowment to support management and maintenance.[11] The agreement authorizing the Beidler Forest In-Lieu Fee Mitigation Program of South Carolina, a preservation-focused program, states the following: "From the mitigation credit fee, an amount not to exceed 15 percent of the cost of each acre acquired will be earmarked for creation of an ongoing management account…"[12] The agreement authorizing The Nature Conservancy In-Lieu Fee Program of Texas requires a fund to be paid to the entity responsible for long-term management and maintenance of mitigation projects. The "operation and maintenance" fund must be "the minimum size necessary to provide reasonable long-term care for the mitigation project and no larger than 20% of the project's total cost."[13]

16. Administrative Reporting

The 2000 ILF Guidance states that in-lieu fee agreements should contain "appropriate schedules for regular (e.g., annual) monitoring reports to document funds received, impacts permitted, how funds were disbursed, types of projects funded, and the success of projects conducted under the in-lieu fee arrangement."[1] ELI found that 34 of the 38 in-lieu fee agreements (89 percent) outline administrative requirements or administrative standards that must be met (i.e., a schedule for regular monitoring reports to document funds received).[2]

Thirty-one agreements (82 percent) require annual financial/administrative reporting.[3] For example, the San Gabriel Mountains Regional Conservancy is required to submit an annual report to the Corps that details:

> all income, disbursements, and interest earned with respect to the [in-lieu fee] Account. The annual report shall include: a spreadsheet of all projects for which in-lieu fees were accepted . . .; a breakdown of in-lieu fee expenditures . . .; an accounting of owed and satisfied compensatory mitigation acreage requirements; and annual mitigation monitoring reports for all in-lieu fee mitigation sites in the monitoring phase.[4]

The San Gabriel agreement also stipulates that the Corps must "[m]aintain records of projects, enforcement, and compliance actions including project location, acres, and/or functions of lost resources by habitat type and similar information . . .," and must also "[p]repare an annual status summary of actions that have served as sources of funds for the [in-lieu fee] Account."[5]

The North Carolina Ecosystem Enhancement Program is required to report quarterly for its activities with the Stream and Wetland In-Lieu Fee Program for NCDOT.[6] Another program, the Montana Wetlands Legacy Trust Fund, is required to report semi-annually.[7] Finally, the Virginia Aquatic Resources Trust Fund is required to "provide the Corps with the account statements it receives from all financial institutions holding the funds within 30 days of the date such account statements are issued."[8]

Four program agreements (11 percent) do not specify administrative requirements.[9]

17. Monitoring Requirements

Twenty-four of the 38 agreements (63 percent) include monitoring requirements. These agreements either include a monitoring plan in the agreement itself or explicitly require the program sponsor to prepare a monitoring plan, monitor each site (sometimes for a designated number of years), use in-lieu fee funds for monitoring, and/or submit a project-specific plan or proposal that lays out monitoring parameters.[1] For example, the agreement authorizing the Mountains Restoration Trust In-Lieu Fee Program states that the program sponsor, or another designated organization, must "maintain and monitor each compensatory mitigation site for a minimum of five years following completion of compensatory mitigation site construction . . ."[2] The agreement authorizing the Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative contains very specific monitoring requirements, stating that the program sponsor must:

> conduct a minimum of five years of annual monitoring in accordance with the monitoring methodology, performance goals and reporting requirements set forth in the [*Pro-*

> *spectus for the Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative*]. For wetland restoration sites, [Ohio Environmental Protection Agency's] "Revised Standard Conditions for 401 Certifications and Isolated Wetland Permits: Mitigation Monitoring and Performance Standards," dated November 3, 2003, shall be used… The monitoring reports will identify the extent to which the mitigation sites are meeting the individual site and general performance goals set forth in the [*Prospectus for the Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative*]…[3]

Fourteen of the program agreements reviewed do not reference monitoring requirements.[4]

18. Performance Standards

The 2000 ILF Guidance states that in-lieu fee agreements, or site specific plans, should contain "performance standards for determining ecological success of mitigation sites."[1] ELI found that 6 of the 38 agreements (16 percent) outline performance standards for determining the ecological success of mitigation sites.[2] For example, the agreement authorizing the Sugar Creek Wetland/Watershed In-Lieu Fee program of Ohio requires monitoring and maintenance in accordance with prescribed methodologies, performance goals, and reporting requirements. For wetland restoration sites, the program sponsor, The Wilderness Center, is instructed to use the Ohio Environmental Protection Agency's *Revised Standard Conditions for 401 Certifications and Isolated Wetland Permits: Mitigation Monitoring and Performance Standards*.[3]

Twelve program agreements (32 percent) state that performance provisions must be spelled out in the project-specific mitigation plan.[4] For example, the agreement authorizing the Stream Corridor Restoration Fund in-lieu fee program in Kentucky requires the program sponsor, Northern Kentucky University's Environmental Resource Management Center, to "develop a Restoration Plan for each identified and Corps-approved restoration project" that includes, among other items, "performance standards for determining success of the restoration efforts."[5]

Six programs (16 percent) report that performance standards are described somewhere other than the in-lieu fee agreement or mitigation site plan, such as project proposals or permits.[6]

GAO's 2001 study recommended that in-lieu fee programs utilize ecological success criteria, rather than rely solely on acres as a measure of success.[7] ELI did not, however, seek to determine whether or not the 18 in-lieu fee programs that either specify performance standards in the agreement or require inclusion of performance standards in individual project plan utilize ecologically based performance standards or acreage measures.

19. Managing Program Data

Of the 38 programs interviewed for this study, 35 (92 percent) are required by their agreements or reported to ELI that they maintain a database with information on operation of the fund.[1] These databases generally track the funds collected per project impact (77 percent); total amount of funds collected (80 percent); acres impacted by permitted projects (49 percent); funds expended (71 percent); projects completed or in pro-

gress (54 percent); acres replaced (71 percent); type of mitigation performed (51 percent) and other information, such as impact and mitigation locations or watersheds, upcoming projects, funds allocated but not yet spent, and the amount of mitigation required for each permitted impact.

The majority of the in-lieu fee sponsors that maintain a database (33 out of 35, or 94 percent), reported that the database is regularly updated.[2] The other two programs reported that they update records annually.[3] In addition, the majority of the program sponsors readily shared a printout of their database with ELI (33 of 35, or 94 percent).[4]

Twenty-two of the 38 programs interviewed (58 percent) report that they track the total amount of aquatic resource impacts that are being offset through the program (i.e., impacts at permitted sites).[5] Seventeen of these programs report these numbers in acres of wetlands, one in linear feet of streams, two in linear feet of streams *and* acres of wetlands, and one tracks stream impacts in acres.[6]

Twenty-eight of the 38 programs interviewed (74 percent) report that they track the total amount of aquatic resource mitigation achieved through the program (i.e., mitigation conducted at mitigation sites).[7] Twenty of these programs report these numbers in acres of wetlands, two in linear feet of streams, five in linear feet of streams *and* acres of wetlands, and one in acres of streams.[8]

20. Completing Mitigation in a Timely Manner

A common criticism of in-lieu fee programs is that they often fail to utilize their collected funds in a timely fashion, which leads to a temporal lag between when project impacts occur and implementation of the associated compensatory mitigation project.[1] The 2000 ILF Guidance states that "[l]and acquisition and initial physical and biological improvements should be completed by the first full growing season following collection of the initial funds…[and] no later than the second full growing season…"[2] It goes on to state that in-lieu fee agreements should contain "a schedule for conducting the activities that will provide compensatory mitigation or a requirement that projects will be started within a specified time after impacts occur."[3] GAO's 2001 report found that 11 of 17 Corps districts with in-lieu fee programs "did not require in-lieu-fee organizations to spend or obligate fees received from developers within a specific time frame."[4]

The 2000 ILF Guidance also recommends that in-lieu fee sponsors supply the Corps with information in advance on the schedule for implementation.[5] ELI found that 18 of the 38 in-lieu fee agreements (47 percent) define a specific timetable in which compensatory mitigation should be completed.[6, 7] Of these 18 agreements, 7 agreements (39 percent),[8] include language similar to the 2000 ILF Guidance, requiring that mitigation projects must be completed "by the first full growing season following collection of the initial funds…"[9] Two agreements, authorizing the two North Carolina programs, make a programmatic commitment to provide mitigation in advance for the majority of impacts.[10] Furthermore, the agreement establishing the Montana Wetlands Legacy program gives a variable timeline, requiring the program to initiate projects and expend funds within three years of collecting funds for the first year of the program, within two years for the second year of the program, and within one year for the all remaining years.[11] The remaining nine agreements that include defined timetables give timelines of two years,[12] three years,[13] and ten years.[14] Finally, many of these program agreements also allow flexibility of project timelines if difficulty is

encountered or the nature of the project requires a longer timeline. In most cases, delays must be approved by the Corps (or another entity) and may result in increased mitigation ratios or re-assignment of funds.[15]

Two programs also specify timetables for the sale of credits. The Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative in Ohio is authorized to sell thirty percent of the program's total anticipated wetland mitigation credits (and additional credits as approved by the Corps on a case-by-case basis) prior to conducting mitigation; however, wetland mitigation projects must be complete within one full growing season from the date of the sale of the first credit. The remaining anticipated wetland mitigation credits may be sold at the sponsor's discretion, but only after mitigation is underway, i.e., once vegetation has been established at a mitigation site "to the satisfaction of the [Corps]." The agreement also allows one hundred percent of anticipated credits for mitigation in the form of preservation to be sold in advance.[16] The Historic Ricefields In-Lieu Fee Program of South Carolina is authorized to sell up to 250 credits per year in addition to specific credits approved by the MBRT. Up to 100 additional advance credits may also be sold with MBRT approval. All mitigation must be complete within two years of the collection of funds (with an additional two-year contingency period for unavoidable delays).[17]

It is interesting to note that at least seven of the program agreements reviewed (18 percent)[18] include language specifically providing the program sponsor with the discretion to wait to allocate funds until an adequate amount of funds have been collected to meet the costs necessary to "result in an environmentally meaningful project"[19] or "so as to maximize the size and/or quality of mitigation sites."[20]

Four program agreements include language relating to the implementation of mitigation in advance of impacts. First, the Florida Department of Transportation In-Lieu-Fee Program's establishing statutes define a programmatic goal of being forward-looking in conducting mitigation. The legislation allows for long-range planning so that mitigation, or at least planning for individual projects, may be completed in advance of permitted impact.[21] By and large, mitigation is not typically conducted in advance, although planning is often in place to support immediate implementation of mitigation projects once funds have been exchanged.[22] The North Carolina Ecosystem Enhancement Program (EEP) has a programmatic commitment to conduct mitigation in advance of impacts. EEP is a program within the North Carolina Department of Environment and Natural Resources that administers four state in-lieu fee programs (*see* box 4: In-Lieu Fee in North Carolina, page 55). Each of the four programs is authorized by and operates under separate state laws, regulations, or agreements, each with different terms. The agreements governing the two in-lieu fee programs covered in this report (North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003)) make a programmatic commitment to providing in-ground, functioning compensatory mitigation for the majority of permitted impacts in advance of the loss of aquatic resources, and advisory committees oversee these efforts.[23] Finally, the agreement establishing the Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative in Ohio requires the program to have vegetation established at mitigation sites before it can sell a portion of its in-lieu fee credits.[24]

Twenty of the 38 in-lieu fee program sponsors interviewed provided ELI with estimates of the typical amount of time after the in-lieu fees are collected that construction, planting, and other active earth moving activities are completed. Of these 20 programs, 1 stated that the projects are complete in less than one

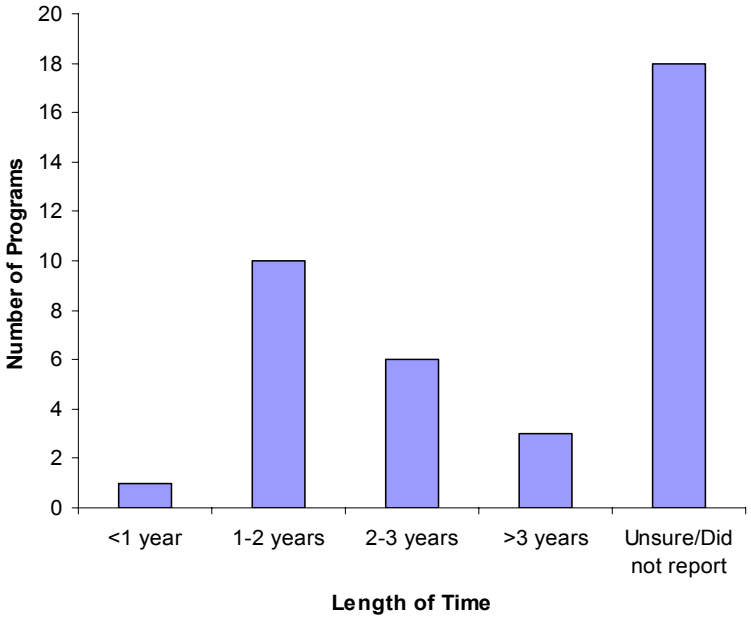

Figure 11. Estimated Length of Time from Transfer of Funds to Completion of Mitigation: The number programs that estimate that mitigation activities to offset a permitted impact are completed (not including site monitoring and/or remedial actions) within one year, two years, three years, or more than three years after the initial transfer of funds from the permittee to the in-lieu fee program sponsor.

year after receiving funds;[25] 10 stated that projects are complete within 1 – 2 years of receiving funds;[26] 6 reported 2 – 3 years;[27] and 3 reported more than 3 years (*see* figure 11).[28] It should be noted, however, that only 4 of the 20 programs provided documentation to support their estimates.[29]

21. Program Termination

Many of the agreements outline the obligations of the sponsor in the event of program termination. Of the 38 agreements, 25 (66 percent) contain termination clauses that require program sponsors to complete obligations for any mitigation projects undertaken, unless otherwise instructed by the authorizing agency. In addition, these agreements state that unused funds should be returned to the authorizing agency or to one or more approved entities and expended for aquatic resource mitigation purposes only.[1] For example, the Ventura River Watershed Habitat Restoration Fund In-Lieu Fee Mitigation Program is required to "complete restoration and maintain mitigation sites at which restoration has been initiated or for which some funds have already been expended;" furthermore, "any unused [in-lieu fee] Mitigation Program fund monies would be provided to the Corps or to another entity approved in writing by the Corps, and used for implementation of aquatic habitat restoration."[2]

Four agreements (11 percent) require the program sponsor to satisfy all mitigation for which funds have been collected,[3] while one agreement (3 percent) requires the return of unused funds, but does not specify how unimplemented mitigation should be completed.[4] The remaining eight agreements (21 percent), seven of which are authorized under state or county provisions and sponsored by state or county agencies, do not contain termination requirements.[5]

22. In-Lieu Fee Successes and Shortcomings

ELI asked program sponsors several open-ended questions about significant successes or shortcomings of in-lieu fee programs or projects in their state or region. The majority of programs reported that, overall, programs were considered successful. However, several concerns, obstacles, and general shortcomings were also reported (*see* table 6, next page).

The most commonly discussed "success" was the ability of in-lieu fee programs to strategically target mitigation. Various program administrators stated that in-lieu fee programs can use collected funds to tackle projects that may be more diverse and/or more desirable for the overall landscape/watershed health than permittee-responsible mitigation or mitigation bank projects, and thus view in-lieu fee as a way to increase the efficiency and effectiveness of compensatory mitigation. In addition, in-lieu fee program administrators and Corps regulators reported that in-lieu fee mitigation is often used in cases where mitigation would likely not be required otherwise, such as less significant impacts (e.g., impacts that occur under nationwide permits) and compensation for violations to state and federal laws. In this sense, program administrators see the flexibility of in-lieu fee as a means to prevent smaller impacts from "slipping through the cracks."

Program administrators and regulators, however, also identified the flexible nature of in-lieu fee programs as the cause of the most commonly reported concerns. One frequently reported concern was underutilization of in-lieu fee funds and, as a result, prolonged lag times between when funds are collected and mitigation is achieved on the ground.

Many program administrators stated that the 2000 ILF Guidance proved useful for establishing in-lieu fee agreements and for operating in-lieu fee programs more effectively. Specifically, they stated that the guidance helped to improve accounting procedures, communication with the Corps, and the achievement of mitigation that better meets the goals of the Clean Water Act. Some programs, however, reported that the ILF Guidance had been difficult to conform to, while other programs were not significantly influenced by the guidance.

Various in-lieu fee program administrators openly discussed difficulty in estimating adequate costs to ensure attainment of project goals. For example, staff for the Arizona Game and Fish Department Mitigation Trust Account responded that costs applied to restoration projects and those estimated by consultants have often been insufficient to meet project goals.[1] The Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program has been particularly challenged by delays in conducting mitigation. Specifically, the program has grappled with evaluating temporal losses and with costs associated with delays in compensation.[2]

Table 6. Successes and shortcomings of ILF programs, as reported anecdotally by program sponsors and regulators.

Reported successes	*Reported shortcomings*
• Program is a general success; also, examples of successful individual ILF projects described	• Examples of unsuccessful individual ILF projects described
• ILF allows mitigation to be better targeted, thereby increasing efficiency and effectiveness of projects	• ILF often underutilized; program may not collect enough funds to conduct meaningful projects in a timely fashion
• ILF funds can be leveraged against other conservation funds (may be used as a match to other grants)	• Communication between Corps and program sponsor lacking; disconnect between Corps priorities and program sponsor priorities
• ILF provides a networking and/or partnership opportunity for conservation organizations and local, state, and federal government agencies	• ILF sponsors do not always have the expertise or resources to identify/prioritize projects, to conduct mitigation, or to correctly estimate mitigation project costs
• 2000 ILF Guidance helpful in creating and administering ILF programs, increasing Corps oversight/communication, and improving accounting practices	• Difficulty conforming to 2000 ILF Guidance; concerns over ILF agreement terms, including single sponsor agreement (i.e., would prefer to have funds distributed to many groups) and required uses of collected funds
• ILF projects have provided educational opportunities, both to the public and to consultants with respect to restoration techniques	• Difficulty with accounting

Several in-lieu fee programs also provided ELI with information on the obstacles they face in identifying appropriate mitigation sites. For example, administrators of the Los Angeles County Aquatic Resource In-Lieu Fee Mitigation Program state that, although one of the benefits of in-lieu fee mitigation is the ability to conduct larger, more effective projects to compensate for multiple small impacts, finding sites for large projects presents a challenge (*see* box 1: In-Lieu Fee Programs in the Los Angeles Corps District, page 20). Furthermore, the program anticipates an increased shortage of lands in the future due to rapid growth and development in the region.[3] Staff for the Virginia Aquatic Resources Trust Fund commented that, because in-lieu fee is often the last resort and used to compensate impacts for which permittees and banks cannot provide appropriate mitigation, locating suitable sites is difficult.[4] Staff for Maryland's Nontidal Wetland Compensation Fund state that the program's greatest challenge is identifying willing landowners. Although the state maintains a Landowner Stewardship Registry, interested landowners that register through the program do not always have sites suitable for compensatory mitigation projects. For these reasons, the program is considering a Request-for-Proposal process to identify sites (*see above:* § IV.8. Site Identification).[5] The Louisiana Department of Natural Resources In-Lieu Fee Program and the Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program also described delays in conducting mitigation due to the time intensiveness associated with identifying and prioritizing sites.[6]

Several program administrators also described difficulties associated with securing Corps approval for expending in-lieu fees on the sites they have identified for mitigation. For example, The Nature Conservancy In-Lieu-Fee Program in Texas noted that the Corps has not approved many of their proposed projects, due in part to the two groups' differing priorities.[7] Other program administrators stated that the 2000 ILF Guidance had actually improved the process of approving sites by increasing communication with the Corps. For example, since the release of the 2000 ILF Guidance, the Los Angeles Corps District has been more engaged in approving projects and monitoring their implementation.[8]

In general, programs reported that, despite the problems observed with in-lieu fee mitigation, they felt it played an important role in the wetland mitigation program and in meeting the national no net loss goal. In some parts of the country, other forms of third-party mitigation (i.e., mitigation banking) are not available. Program administrators in these regions felt that, without a flexible, cost-effective alternative, impacts to wetlands would more often go un-mitigated.

BOX 4: IN-LIEU FEE IN NORTH CAROLINA

The North Carolina General Assembly passed legislation in 1996 creating the Wetland Restoration Program (WRP), a state in-lieu fee program.[1] The program was designed to improve the permitting process and ecological effectiveness of compensatory mitigation by developing watershed-based restoration plans and ensuring that mitigation would be conducted in an ecosystem context. In 1998, the North Carolina Department of Environment and Natural Resources (NCDENR) entered into a Memorandum of Understanding with the U.S. Army Corps of Engineers that established operational guidelines for the WRP.

In 2003, the NCDENR entered into a Memorandum of Agreement with the Corps and North Carolina Department of Transportation (NCDOT) to create the state's landmark Ecosystem Enhancement Program, effectively replacing the WRP. The Ecosystem Enhancement Program (EEP), housed within the NCDENR, not only incorporated the functions of the former WRP, but also began administering a separate in-lieu fee program that conducts mitigation exclusively for impacts resulting from NCDOT activities. The cornerstone of the EEP is a detailed watershed-planning process that is designed to support high-quality, cost-effective projects for watershed improvement and protection and open space preservation. The EEP has a programmatic commitment to providing in-ground, functioning compensatory mitigation for the majority of permitted impacts in advance of the loss of aquatic resources.

As of 2006, EEP sponsors four distinct in-lieu fee programs, each with separate authorizing instruments and financial accounts. This report examines the first two of the four programs listed below:

- **Stream and Wetland In-Lieu Fee Program** (formerly the Wetland Restoration Program), which provides mitigation, as appropriate, for impacts resulting from §404 permits, §401 water quality certifications, and/or Coastal Area Management Act permits (with the exception of most NCDOT permits). The program operates according to the 1998 *Memorandum of Understanding Between the North Carolina Department of Environment and Natural Resources and the United States Army Corps of Engineers, Wilmington District* and rules set out in the North Carolina Administrative Code (NCAC) (Title 15A, Subchapter 02R).

- **Stream and Wetland In-Lieu Fee Program for NCDOT**, which provides off-site mitigation exclusively for impacts resulting from NCDOT activities. The program operates according to the 2003 *Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources and North Carolina Department of Transportation and the United States Army Corps of Engineers, Wilmington District.* NCDOT provides advance funding to the EEP through an approved biennial budget. Funding mechanisms are detailed in the 2004 *Memorandum of Agreement Between the North Carolina Department of Environment and Natural Resources and the North Carolina Department of Transportation.*

- **Riparian Buffer In-Lieu Fee Program**, which provides mitigation for impacts resulting from activities permitted under the state's riparian buffer rules in the Neuse, Tar-Pamlico, and Catawba River Basins, as well as a portion of the Cape Fear River Basin. The program operates according to rules described in the NCAC (Title 15A, Subchapter 02B §§ .0242, .0243, .0244, .0250, and .0259).

- **Nutrient Offset In-Lieu Fee Program**, which provides nutrient reduction projects to offset exports related primarily to development activities in the Neuse and Tar-Pamlico River Basins (15A NCAC 02B §§ .0234 and 02B .0235). The program operates according to rules described in the NCAC (Title 15A, Subchapter 02B § .0240).

For more information, visit the EEP website at http://www.nceep.net/. North Carolina's laws and regulations are available online at http://www.ncga.state.nc.us/gascripts/Statutes/Statutes.asp and http://ncrules.state.nc.us/ncac.asp, respectively.

V. Conclusions

The primary principles guiding administration of the §404 program are the Clean Water Act goal, established in 1972, of restoring and maintaining the "chemical, physical, and biological integrity" of the nation's waters[1] and the "no overall net loss" of wetland acres and functions, which was announced as a national goal in 1989.[2] In the intervening years, EPA and the Corps have developed an array of rules and guidance to support the achievement of these goals.

The two goals have essentially been addressed through the sequencing provisions, which seek to avoid and minimize impacts to wetlands to the extent "appropriate and practicable" and require all remaining impacts to be mitigated to the extent "appropriate and practicable."[3] Significant attention has been paid over the past 20 years to improving compensatory mitigation to ensure that the mitigation being provided is ecologically effective, self-sustaining, protected in perpetuity, has "assurances of long-term sustainability and stewardship,"[4] and ultimately meets the no net loss goal.

Currently, there are three primary mechanisms supported by EPA and the Corps for permittees to meet their compensatory mitigation obligations. These are: permittee-responsible mitigation, purchasing credits from a mitigation bank, or making a payment to an approved in-lieu fee mitigation sponsor. All three forms of compensatory mitigation have risks associated with them (*see* table 7, next page). The federal agencies have issued a variety of guidance documents to improve the effectiveness of these different forms of mitigation, including the 1990 Mitigation Memorandum of Agreement, the 1995 Banking Guidance, and the 2000 In-Lieu Fee Guidance, and the Corps' 2002 Regulatory Guidance Letter (No. 02-2) (*see above:* § II.1. History of In-Lieu Fee Policy).

In March 2006, EPA and the Corps issued a proposed rule on compensatory mitigation that sets out to establish "to an extent that is feasible and practical, equivalent standards for all forms of compensatory mitigation."[5] Although the proposed rule would eliminate in-lieu fee mitigation as an option for providing compensatory mitigation, it also states that the agencies are "seeking comment on alternative approaches that would retain in-lieu fee programs as a separate category of mitigation with somewhat different requirements."[6]

Federal wetland regulatory agencies are faced with the challenge of meeting the no net loss and Clean Water Act goals, while reducing these risk factors for all three types of compensatory mitigation. The following review of in-lieu fee mitigation performance is intended to determine whether and to what extent these risks may have been addressed by current programs. Based on ELI's review of 38 approved and active in-lieu fee programs, we attempt to answer four distinct questions in this section:

1. Is in-lieu fee mitigation able to support ecological project goals?
2. What are the benefits of in-lieu fee as a mitigation option?
3. What are the risks and shortcomings of in-lieu fee?
4. Have the particular risks and shortcomings of in-lieu fee been adequately addressed through existing policy and program administration?

Table 7. A taxonomy of some of the risks associated with all three forms of compensatory mitigation.

Risks Associated with Compensatory Mitigation	
1.	Risk of temporal lag between impacts and implementation of compensatory mitigation
2.	Risk of disconnect between goals of mitigation sponsor and Corps objectives in site selection
3.	Risk that plans for financing acquisition, implementation, and long-term management are incomplete or unrealistic
4.	Risk that funds will be unavailable to meet design and performance standards
5.	Risk of temporal lag in achievement of ecosystem performance
6.	Risk that funds will be unavailable for maintenance after monitoring period
7.	Risk that compensation provider cannot be compelled to complete compensation as planned

1. Is in-lieu fee mitigation able to support ecological project goals?

There is no body of ecological, empirical, field-based research that evaluates the relative effectiveness of the three mitigation methods.[1] In other words, no conclusive, objective determination has been made about whether or not the "product" – aquatic resource mitigation – produced by any one of the respective approaches is superior to the others.

Several studies have indicated that in-lieu fee programs are both problematic and potentially beneficial. The Government Accountability Office's (then the General Accounting Office) 2001 study on in-lieu fee mitigation states that the method has "the potential to be an effective compensatory mitigation tool that benefits the environment and [provides] developers flexibility in meeting their mitigation requirements."[2] In the same study, GAO also found that "[t]he extent to which the in-lieu-fee option has achieved its purpose of mitigating adverse impacts to wetlands is uncertain."[3]

In its 2001 study, the National Research Council stated that "[t]hird-party compensation approaches (mitigation banks, in-lieu fee programs) offer some advantages over permittee-responsible mitigation."[4] In its 2005 study of the degree and success of oversight over all three methods of compensatory mitigation, GAO concluded that the Corps districts provide "somewhat more oversight for mitigation conducted by third parties,"[5] including in-lieu fee and mitigation banks, than for permittee-responsible mitigation.[6]

Our findings note that in many instances, in-lieu fee mitigation is not being carried out in a manner that fully addresses the recommendations noted in existing studies and guidance. As a result, any deficiencies may be a product of the structure of the programs themselves or existing in-lieu fee mitigation policy, rather than the mitigation method. Accordingly, many of the conclusions below focus on the relative risks and benefits of the method.

2. What are the benefits of in-lieu fee as a mitigation option?

a. The nature of the mitigation provider

There are several benefits associated with in-lieu fee mitigation that may relate to the nature of the mitigation provider. As noted earlier (*see above:* § IV.2. Program Sponsors), over half of the in-lieu fee programs reviewed are sponsored by nonprofit organizations or land trusts and none are sponsored by private entities/entrepreneurs. By contrast, almost three-quarters of the nation's approved mitigation banks are sponsored by private entities/entrepreneurs and only 5 percent are sponsored by nonprofit conservation groups.

This contrasting pattern of sponsorship may have implications that affect the design, administration, and long-term stewardship of mitigation sites. Conservation organizations, and land trusts in particular, typically have natural resource conservation as the primary goal in their organizational mission statements. As a result, these groups may have greater expertise in prioritizing sites for their ecological and other environmental values, and the capacity, track record, and organizational commitment to ensure long-term site management and stewardship. Nonprofit groups and land trusts generally also have significant experience working with diverse groups of agencies and organizations in a collaborative manner. Frequently, this means determining conservation priorities in conjunction with natural resource agencies. Of course, private entrepreneurs too have a significant incentive to design mitigation projects that meet performance standards so financial investments can be recouped, and new opportunities can be pursued.

b. Site selection, the watershed approach, and long-term stewardship

Two of the most influential recommendations that came out of the NRC's 2001 study on compensatory mitigation relate to site selection and watershed planning. First, NRC recommended that the federal wetland mitigation program move away from the automatic preference for on-site and in-kind to making site selection decisions that "follow from an analytically based assessment of the wetland needs in the watershed and the potential for the compensatory wetland to persist over time."[1] This recommendation was embraced by the Corps in its 2002 Regulatory Guidance Letter on compensatory mitigation and has been further elaborated upon in the proposed mitigation rule.[2] A second set of closely related recommendations speak to the importance of selecting sites that are likely to become self-sustaining.[3] The proposed rule puts considerable emphasis on the importance of site selection, stating that "site selection is a primary consideration for compensatory mitigation projects."[4]

The Corps, however, has limited ability to require a watershed analysis in the site selection process. In the case of permittee-responsible mitigation and mitigation banking, site selection is a passive exercise on the part of the Corps. Although Corps districts undoubtedly provide significant advice on selecting sites, the agency does not have the authority in the permit and mitigation plan approval process to direct mitigation providers – either permittees or bankers – to locate mitigation projects in areas that are deemed ecologically desirable in a watershed plan or through watershed-based analysis.

Because the primary objective of the private mitigation banker is to provide mitigation on demand to clients (preferably in a way that will maximize profits) and an objective of the permittee is to minimize expenses, neither may have an incentive to explore analytical, watershed-based site selection. In contrast, in-lieu fee programs, depending upon their conservation objectives, may have a primary incentive to do so. Similar incentives may affect long-term site protection. For example, several of the agreements authorizing

in-lieu fee programs in the Corps' Los Angeles District state that the programs are "designed to facilitate a holistic approach to aquatic resource management in watersheds…allocating money to where there is the greatest opportunity for long-term ecological benefit."[5] Although permittee-responsible and bank sites are usually required to be protected in perpetuity, the mitigation sponsors' interest in long-term stewardship of conservation lands is driven by regulation rather than mission.

In-lieu fee mitigation, on the other hand, may provide opportunities for supporting watershed-based site selection and maintaining some external public focus on ensuring long-term stewardship of conservation and restoration sites. As suggested in the 2000 ILF Guidance, in-lieu fee sponsors may identify a variety of sites to ensure that a range of mitigation options exist once adequate funds have been collected. They may also seek to identify a range of mitigation types to satisfy compensatory mitigation requirements for §404 permits. In addition, at least five of the in-lieu fee program instruments reviewed indicate that the Corps plays an active role in helping to identify potential projects, generally in advance.[6] The proposed rule does seem to recognize these benefits of in-lieu fee mitigation:

> …some in-lieu fee programs have been able to protect high quality aquatic resources under threat of imminent impact, to employ a conservation strategy that is consistent with the watershed approach…and to partner with government agencies and non-profit non-governmental organizations to maximize protection of those at-risk resources.[7]

As discussed earlier (*see above:* § IV.8. Site Identification), 32 percent of the in-lieu fee programs reviewed indicate that the program sponsor will establish a site selection committee or coordinate with a diverse group of partners to aid in prioritizing and selecting projects. These site selection committees are often comprised of a diversity of federal, state, and local agencies, nonprofit organizations, land trusts, and, in at least one case, tribes. These groups come to the table with a range of expertise, including agriculture, wildlife conservation, land management, and land stewardship. The value of these arrangements depends upon the ability of the diverse participants to draw upon their respective technical and geographic areas of expertise to identify sites that meet the resource needs of the watershed, as well as the objectives of the respective agencies and organizations.

As an example, the agreement establishing the Alaska Wetlands Conservation Fund (Airport Improvement Projects) states:

> The Conservation Fund will seek to protect larger, ecologically-meaningful properties rather than smaller, isolated tracts. The Conservation Fund will make every effort to prioritize lands to be acquired…based on ecological significance. To identify ecologically significant lands and assign them the appropriate priority, we will work closely with natural resource managers, biologists and other knowledgeable individuals to gain their direct input. We will bolster that input with the numerous plans and other documents produced by federal, state, municipal, academic and non-profit entities that are available to provide baseline information and guidance.[8]

In its review of third-party compensatory mitigation, NRC stated that the role of conservation agencies or organizations in taking over long-term responsibility of third-party mitigation sites "is a desirable stewardship outcome of all third-party compensatory mitigation systems…"[9] Many conservation organizations

and land trusts have narrowly defined priorities that limit the geographic location or ecological condition of the sites they accept. If not involved from the start in site selection, the likelihood of these groups accepting ownership of permittee-responsible or bank sites is significantly diminished. Having stewardship-oriented groups play a primary role in mitigation site selection serves to increase the chances that the sites themselves will meet the ecological and geographic criteria these groups have for taking on such responsibilities.

c. Ability to meet local needs and mitigate small impacts

Many in-lieu fee programs restrict the types of permits, size and types of permitted impacts, and/or the types of permittees that can pay into the programs (*see above:* § IV.4. Types of Impacts Eligible for Paying into In-Lieu Fee Programs). Some of these narrowly tailored programs may be more effective than other compensatory mitigation approaches at providing mitigation options that address specific local needs. Local in-lieu fee program sponsors may also have more intimate, long-standing knowledge of local resources, a long-term commitment to conservation in the region, or expertise in restoring specific aquatic resource types. The Missouri Stream Stewardship Trust Fund, for example, prioritizes projects based on "regional stream needs…level of threat to the stream system, and overall anticipated benefits to stream resources."[10] The Elizabeth River Restoration Trust in Virginia focuses primarily on providing compensatory mitigation "for permitted impacts to tidal submerged lands and tidal wetlands…"[11]

As discussed earlier, several in-lieu fee programs address aquatic resources below the Corps' acreage threshold or aquatic resource types that may not normally require compensatory mitigation. These programs may also provide compensatory mitigation for aquatic resource types that are not usually provided by mitigation banks (e.g., sub-tidal habitats); in watersheds where there are no mitigation banks located; where existing mitigation banks do not have credits available for the needed wetland types; or where permittee-responsible mitigation is not practicable.

d. Ease of regulatory oversight

GAO's 2005 study found that "[o]verall, the Corps districts…have performed limited oversight to determine the status of required compensatory mitigation."[12] GAO did find, however, that the agency "provided somewhat more oversight for mitigation" conducted by mitigation banks and in-lieu fee programs than for permittee mitigation.[13]

GAO reported that Corps oversight of mitigation banks and in-lieu fee arrangements was similar, albeit not identical. In its review of 85 banks and 12 in-lieu fee arrangements, the GAO found that 71 percent of the banks and 50 percent of the in-lieu fee arrangements had been required to submit monitoring reports; 70 percent of those banks and 83 percent of those in-lieu fee arrangements had submitted at least one monitoring report; and the Corps had conducted compliance inspections for 36 percent of the banks and 42 percent of the in-lieu fee arrangements.[14]

3. What are the risks or shortcomings of in-lieu fee mitigation?

Attention should be paid to the risks associated with all forms of compensatory mitigation methods to ensure that lost aquatic resources are replaced and have a high degree of likelihood of long-term sustainability and stewardship. Although many of the risks associated with in-lieu fee mitigation have been addressed

through existing rules and guidance, several still persist or may not be adequately addressed through existing policy.

a. Temporal lag between impacts and implementation of compensatory mitigation

Almost all mitigation projects, whether completed through permittee-responsible, banking, or in-lieu fee mitigation, experience a lag between the time that permitted impacts occur and when mitigation projects are implemented. This risk, however, may be more difficult to manage for permittee-responsible and is one of the defining features of in-lieu fee mitigation. The 1995 Banking Guidance characterized in-lieu fee mitigation as a form of compensation district from banks "*because* they do not typically provide compensatory mitigation in advance of project impacts."[1]

For banks, the temporal risk is partially minimized through phased credit release, which allows banks to sell credits as specific administrative and ecological milestones are met. Bank sponsors are permitted to sell a portion of their credits prior to initiating mitigation activities, but they must first have an approved banking instrument and mitigation plan in place and have secured a mitigation site and appropriate financial assurances.[2] These up-front costs are significant and the bank sponsor's full return on investment is further delayed by phased credit release. As a result, wetland banking is often feasible only for entrepreneurs who bring substantial investment capital to the project. ELI's *2005 Status Report* found that private entrepreneurs and public agencies sponsor 95 percent of all banks.[3] Private entrepreneurs and public agencies have greater access to public and private capital and are therefore able to pre-capitalize costs.

For in-lieu fee mitigation, this risk is partially minimized through the recommendation that authorizing agreements either specify a schedule for conducting the activities that will provide compensatory mitigation or include a requirement that projects will be started within a specified time after impacts occur.[4] Pre-capitalization of many of the costs addressed by banks is more challenging for nonprofit organizations and land trusts, which sponsor more than half of the in-lieu fee programs reviewed. Some of these groups have less access to the public and private capital necessary to offset these significant up-front expenses. They rely primarily on public and private grants and donations for support. Securing funding for mitigation-related activities may be difficult, as mitigation is often perceived as helping to facilitate impacts to aquatic resources.

b. Unrealistic plans for financing acquisition, implementation, and long-term management

Several existing factors may heighten the risk of in-lieu fee programs inadequately assessing fees that are sufficient to replace lost aquatic resource functions and support long term management. As discussed above, mitigation banks generally must have in place an approved banking instrument and mitigation plan, have secured the mitigation site, and have secured appropriate financial assurances before credits can be sold. With permittee-responsible mitigation, the proposed rule would require permittees to have an approved mitigation plan prior to the permit being issued. Both of these approaches necessitate significant cost accounting in advance of impacts.

Although the 2000 ILF Guidance suggests that program sponsors should supply the Corps with information on potential sites in advance,[5] by design, the vast majority of active programs are not required to secure sites or have approved mitigation plans until after fees are accepted.

In addition, ELI found that 23 of the 38 in-lieu fee agreements reviewed (61 percent)[6] allow the programs to accept funds from sources other than permittees. Seventeen programs (45 percent) accept funds generated by the resolution of enforcement and compliance actions initiated by the Corps (*see above:* § IV.5. Additional Sources of Funding).[7] Ten programs, including some of those that accept fines as stated above, state rather vaguely that they accept "other funds."[8] Accepting alternative sources of funding (i.e., from federal grants, damage assessment programs, or fines) above the fees collected to compensate for permitted impacts may serve to subsidize in-lieu fee mitigation and therefore distort the true costs of replacing lost aquatic resource functions. Supplementing the funds collected through fees may encourage sponsors to assess fees below that needed to offset permitted losses at the ratio required by the program, or a minimum of one-for-one.

c. Disconnect between the goals and objectives of the Corps and mitigation providers

Conservation organizations, land trusts, and many of the state agencies that sponsor in-lieu fee mitigation may be primarily concerned with land preservation, rather than the restoration of lands and waters. Land preservation and wildlife conservation is often at the heart of these groups' missions. When faced with threats from development, these groups may reach for the tools they know best and that provide the most lasting benefits – preserving land in perpetuity and providing sound stewardship of those properties. When making decisions about which land to preserve or restore, these entities often turn to their respective conservation priorities or missions for guidance.

The Corps, on the other hand, requires compensatory mitigation for §404 permits to offset permitted losses to aquatic resources and strives to meet the national goal of "no overall net loss" of wetlands. In this context, preservation is generally used only in conjunction with other mitigation methods.

The conservation goals of the nonprofit groups and public agencies may not completely coincide with the goals of the Corps. Although mostly based on anecdotal information gathered through interviews with in-lieu fee sponsors and Corps regulators, ELI found that this disconnect can often lead to an impasse: the Corps will not approve the use of funds for projects that meet the land trust's priorities and the land trust is uninterested in sites that meet the Corps needs (e.g., sites are in more urban areas than the organization generally works or are highly degraded and are not ecologically high-value areas).

At one extreme, this disconnect may lead to delays in the Corps approving sites for the expenditure of in-lieu fees; at the other extreme it may lead to a higher degree of reliance on preservation as the mitigation method of choice. Indeed, this study found that 52 percent of the mitigation provided by 18 responding wetland mitigation programs relied upon preservation and 45 percent of the mitigation provided by the 7 responding stream in-lieu fee programs utilized preservation. Eight of the in-lieu fee agreements reviewed (21 percent) state that preservation is the preferred method of mitigation, or that the majority of wetland projects are anticipated to be preservation projects (*see above:* § IV.9. Replacing Lost Aquatic Resource Functions).

Before entering into in-lieu fee agreements, both parties – the sponsor and the authorizing agency – have an obligation to ensure that there are more realistic expectations for how sites will be identified, evaluated, and approved, and how the Corps weighs projects that propose to use preservation as the sole or primary

mitigation method. ELI found that many in-lieu fee sponsors had a significant lack of understanding of the overall objectives of the §404 program and several were unaware that the 2000 ILF Guidance was in effect.

4. Have the particular risks or shortcomings of in-lieu fee mitigation been adequately addressed?

The two GAO studies, one NRC study, multiple agency guidance documents, and proposed rule have all highlighted the difficulties with in-lieu fee mitigation and in some cases sought to remedy these inadequacies. This study evaluates 38 approved and active in-lieu fee programs to determine the extent to which these programs conform to existing recommendations and guidance offered on the structure, operation, and oversight of in-lieu fee programs. The table below summarizes many of the findings discussed in this report. It presents 23 "standards" against which we compare existing in-lieu fee programs. These standards are compiled from recommendations contained in the documents listed in the citations (*see* table 8: Comparison of Recommended Standards to In-Lieu Fee Programs Reviewed, page 66).

ELI found that, in general, the in-lieu fee programs reviewed have achieved only 6 of the 23 standards outlined in the recommendations provided through the various policy documents referenced. It is unclear whether this is attributable to inadequate communication among and between the 38 Corps district offices; inadequate communication between the Corps and the program sponsors; the nature of the mitigation providers; inherent problems with federal guidance that has been provided on in-lieu fee mitigation to date; or is due to insurmountable problems with how in-lieu fee mitigation is structured.

In-lieu fee programs have had mixed success addressing the three primary risks identified above. With mitigation banking, the risk posed by the temporal lag between impacts and implementation of compensatory mitigation is primarily addressed through phased credit release, which allows banks to sell a portion of their credits once certain milestones are met and ties release of additional credits to meeting other implementation milestones.

For in-lieu fee mitigation, some of this risk has been addressed through the recommendation that authorizing agreements either specify a schedule for conducting the activities that will provide compensatory mitigation or include a requirement that projects will be started within a specified time after impacts occur.[1] ELI's study found that 47 percent of the in-lieu fee agreements reviewed met this recommendation (*see above:* § IV.20. Completing Mitigation in a Timely Manner). The 2000 ILF Guidance also recommended that in-lieu fee programs acquire mitigation properties and complete initial physical and biological improvements by the first full growing season and no later than the second full growing season following collection of initial funds.[2] ELI found that only 29 percent of the programs reviewed had met this standard by the second year after collecting funds (*see above:* § IV.20. Completing Mitigation in a Timely Manner). For example, the agreement authorizing the Missouri Conservation Heritage Foundation's Stream Stewardship Trust Fund states that "[a]ll monies from the Trust Fund are to be allocated to specific projects within three years of the date received."[3] The program sponsor reported that, on average, construction, planting, and other active earth moving activities are completed within one-two years after the exchange of funds.[4]

The second risk is that in-lieu fee programs may not set fees adequate to achieve compensation in the absence of specific sites which can be subjected to cost analyses. Although the focus of in-lieu fee mitigation,

indeed all compensatory mitigation, should be on providing full compensation for impacts (an ecological goal), rather than allocating all of the received funds (an administrative goal), this issue has continued to plague in-lieu fee programs. In order to address the risk of failing to realistically finance acquisition, implementation, and long-term management, the 2000 ILF Guidance states that sponsors should supply the Corps with information in advance on potential sites where specific restoration projects are planned,[5] and more specifically, the agreements should contain: "potential site locations, baseline conditions at the sites, and general plans that indicate what kind of wetland compensation can be provided."[6] Here, ELI found that in-lieu fee programs are falling short in a significant way. Only four of the programs reviewed either identified mitigation sites in the authorizing agreement, indicated general areas where mitigation projects may be carried, out or reference watershed plans that do so (*see above:* § IV.8. Site Identification).

Although existing guidance does not speak directly to how programs can or should accurately account for costs, at least three programs offer some insight into how programs could account for costs in advance of mitigation activities. The authorizing agreements for these programs state that they base their fees on the costs of comparable mitigation being conducted in the area where the permitted impacts occurred (*see above:* § IV.12. Determining Fees.). The Montana Wetlands Legacy Trust Fund agreement, for example, states "The initial fee structure . . . will be established using costs incurred in recent years by private wetland and riparian restoration firms and agency and conservation organization programs."[7] In-lieu fee programs can develop reasonably accurate estimates of the costs of conducting aquatic resource restoration by examining existing data on the various costs of activities that are needed for restoration and other means of providing compensatory mitigation, such as land acquisition, site preparation, grading and labor costs, acquiring plant materials, planting, and legal, administrative, and maintenance costs.

In order to address the risks associated with subsidizing mitigation by allowing in-lieu fee programs to accept fees from sources other than permittees, the authorizing instruments can stipulate that these additional funds be used to achieve aquatic resource restoration and protection goals only over and above those that offset permitted impacts at a minimum of one-for-one acreage replacement or at the ratio required by the program. One way to accomplish this would be through accounting procedures that keep fees collected from other sources separate from ones collected from permittees. The Elizabeth River Restoration Trust, for example, accepts funds from other sources, such as mitigation funds for permitted impacts that fall outside the scope of the agreement. These funds, however, may be "used to augment the goals of this Agreement or the [Elizabeth River Project's] Watershed Action Plan for the Elizabeth River, but are not subject to the requirements of this Agreement."[8] The agreement also states that "[w]hile mitigation funds paid to the Trust as in-lieu fee payments should be sufficient, at a minimum in the aggregate, to offset the impacts for which they are provided, the Elizabeth River Project's goal and the Trust's goal will be to go beyond the minimum to achieve improvements to the Elizabeth River ecosystem."[9]

The third risk, the potential mismatch of goals between in-lieu fee program sponsors and federal agencies seeking to assure achievement of satisfactory mitigation for aquatic resource losses, is handled differently under different in-lieu fee agreements. This mismatch is demonstrated by, among other things, the propensity of in-lieu fee programs to focus primarily on preservation of existing aquatic resources. Eight agreements (21 percent) state that preservation is the preferred method of mitigation, or that the majority of wetland projects are anticipated to be preservation projects;[10] 6 programs (16 percent) reported that mitigation is achieved entirely through preservation, [11] 1 program reported that 75 to 99 percent of mitigation is

achieved through preservation,[12] and 5 programs (13 percent) reported that 50 to 74 percent of mitigation is achieved through preservation.[13]

In some cases, permittees may meet replacement requirements through restoration, creation, or enhancement elsewhere, and replace other functions through preservation by making a payment to an experienced land trust-sponsored in-lieu fee program. Other programs may fully replace lost aquatic resources through restoration activities on a minimum one-to-one basis and use preservation only over and above that amount. The Virginia Aquatic Resources Trust Fund, for example, has expended or allocated only 35 percent of the fees it has collected since the program was approved ($6.6 million of $18.7 million collected). Nonetheless, it has managed to replace lost wetland acreage at a ratio of 3.8:1 relying only upon restoration. In compensation for 179 acres of impacts, the program has restored 673 acres, enhanced 516 acres, and preserved 2,297 acres (*see* Appendices C and D).

5. In Conclusion

All three forms of compensatory mitigation carry with them certain inherent risks and offer their own benefits. ELI's study finds that in the vast majority of cases, in-lieu fee mitigation is not being carried out in a manner that fully addresses the recommendations offered by existing studies and guidance. The shortcomings of in-lieu fee mitigation offered here may be a product of the structure of the existing programs and in-lieu fee mitigation policy, rather than the mitigation method itself.

If in-lieu fee mitigation is to be a viable, effective third-party mitigation option, the shortcomings highlighted here may need to be addressed. Although many solutions could be devised, the challenge is to identify approaches that ensure that lost aquatic resources are replaced, while maintaining the flexible aspects of the approach that differentiate it from mitigation banking. This may lead to a higher barrier to entry for potential in-lieu fee providers due to requirements to pre-capitalize some costs, such as advanced site identification and the development of adequate and accurate cost estimates. Such improvements would necessitate the development of federal or state policy with more regulatory force than guidance. In addition, oversight and enforcement would be critical for ensuring that these standards are carried out in a meaningful way.

Since no existing ecological, empirical, field-based research has demonstrated whether or not in-lieu fee mitigation is inherently unable to replace lost aquatic resource functions, the fundamental questions for in-lieu fee mitigation are whether the risks can be adequately managed and whether the risks that remain are outweighed by the potentially significant benefits of in-lieu fee mitigation.

Table 8. Comparison of Recommended Standards to In-Lieu Fee Programs Reviewed. The table below lists 23 standards – recommendations or guidance – provided by several sources, including the Government Accountability Office (formerly the General Accounting Office), National Research Council, and the 2000 ILF Guidance on the structure, operation, and oversight of in-lieu fee mitigation programs. References for each of the standards are provided in the endnotes. The statistics provided can all be found in the sections indicated. The last column indicates whether or not a minimum of 50 percent of the 38 in-lieu fee programs studied conform to the standard. Although 50 percent is a low threshold against which to measure the success of any program, it was chosen with the acknowledgement that 22 of the 38 in-lieu fee programs reviewed (58%) operate under authorizing instruments that were established prior to the release of the 2000 ILF Guidance (*see above:* § III.3. Pre-/Post-Guidance Comparisons).

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
1.	Programs should provide mitigation in advance of project impacts.[1]	3 of 38 do or are committed to doing so (8%)[2]	35 of 38 (92%)		IV.20. Completing Mitigation in a Timely Manner	No
2.	Agreement should specify potential sites.[3]	1 of 38 (3%)	34 of 38 (89%)	3 of 38 (8%)	IV.8. Site Identification	No
3.	Program sponsors should supply the Corps with information in advance on the schedule for implementation of mitigation projects.[4]	18 of 38 (47%)	20 of 38 (53%)		IV.20. Completing Mitigation in a Timely Manner	No
4.	Program sponsors should plan and develop in-lieu fee mitigation projects to address the specific resource needs of the watershed;[5] In-lieu fee programs should provide "watershed integration."[6]	13 of 38[7] (34%)	25 of 38 (66%)		IV.8. Site Identification	No
5.	Program sponsors should give careful consideration to the ecological suitability of sites for achieving the goal and objectives of compensatory mitigation.[8]	19 of 38[9] (50%)	19 of 38 (50%)		IV.8. Site Identification	=

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
6.	Programs should use preservation of existing wetlands only in exceptional circumstances.[10]				IV.1. Credit Sales and Mitigation Activities Undertaken	No (see 6.a. and 6.b. below)
6.a.	Wetlands	Of 18 responding programs, 33% of the mitigation is provided through restoration, 13% through enhancement, and 2% through creation	Of 18 responding programs, 52% of the mitigation is provided through preservation		IV.1. Credit Sales and Mitigation Activities Undertaken	No
6.b.	Streams	Of 7 responding programs, 49% is provided through restoration and 6% through enhancement	Of 7 responding programs, 45% is provided through preservation		IV.1. Credit Sales and Mitigation Activities Undertaken	No[11]
7.	Programs should use funds collected for replacing wetland functions and values and not to finance non-mitigation programs and priorities, such as upland preservation, research, or education.[12]	15 of 38 (39%)	20 of 38 (53%)	3 of 38 (8%)	IV.9. Replacing Lost Aquatic Resource Functions	No
8.	Funds collected should ensure a minimum of one-for-one acreage replacement.[13]	14 of 38 (37%)[14]	24 of 38 (63%)		IV.11. Requirements to Achieve One-to-One Replacement	No

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
9.	In-lieu fee programs should provide "timely … compensation for all permitted activities."[15]				IV.20. Completing Mitigation in a Timely Manner	No (see 9.a. and 9.b. below)
9.a.	Agreement should specify a schedule for conducting the activities that will provide compensatory mitigation or a requirement that projects will be started within a specified time after impacts occur.[16]	18 of 38 (47%)	20 of 38 (53%)		IV.20. Completing Mitigation in a Timely Manner	No
9.b.	Land acquisition and initial physical and biological improvements should be completed by the first full growing season and no later than the second full growing season following collection of the initial funds.[17]	11 of 38 (29%)	27 of 38 (71%)		IV.20. Completing Mitigation in a Timely Manner	No
10.	Agreements should require mitigation sites to be protected in perpetuity.[18]	19 of 38 (50%)	19 of 38 (50%)		IV.13. Protection in Perpetuity	=
11.	Site protection should be accomplished using an appropriate real estate arrangement (e.g., conservation easement, transfer of title to a Federal or State resource agency or non-profit conservation agency).[19]	15 of 38 specify one or more of the following: fee title acquisition, conservation easements, deed restrictions, or restrictive covenants (40%)	19 of 38 do not require protection in perpetuity, nor do they specify how the sites should be protected (50%)	4 of 38 require protection in perpetuity but do not specify the type of site protection mechanisms (3%)	IV.13. Protection in Perpetuity	No
12.	Agreement should include a schedule for a regular monitoring report to document funds received, impacts permitted, how funds are disbursed, types of projects funded, etc.[20]	34 of 38 (89%)	4 of 38 (11%)		IV.16. Administrative Reporting	Yes

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
13.	Agreement should specify requirements for monitoring (i.e., specific parameters to be monitored).[21]	24 of 38[22] (63%)	14 of 38 (37%)		IV.17. Monitoring Requirements	Yes
14.	Agreement should specify the geographic service area.[23]	29 of 38 (76%)	9 of 38 (247%)		IV.6. Service Areas	Yes
15.	Agreement should outline method for determining fees.[24]	14 of 38 (37%)	24 of 38 (63%)		IV.12. Determining Fees	No
16.	Agreement should outline method for determining credits.[25]	3 of 38 (8%)	35 of 38 (92%)		IV.10. Method of Determining Credits	No
17.	Agreement should specify performance standards for determining ecological success of mitigation sites, or require inclusion in individual project plan.[26]	18 of 38 (47%)	14 of 38 (37%)	6 of 38[27] (16%)	IV.18. Performance Standards	No
18.	Agreement should "contain distinct provisions that clearly state that the legal responsibility for ensuring mitigation terms are satisfied fully rests with the organization accepting the in-lieu-fee."[28]	12 of 38 (32%)	26 of 38 (68%)		IV.14. Remedial Action Provisions and Contingency Funds	No
19.	Agreement should include "provisions for remedial actions and responsibilities (e.g., contingency fund)"[29]	19 of 38 (50%)	19 of 38 (50%)		IV.14. Remedial Action Provisions and Contingency Funds	=
20.	Agreement should include financial, technical and legal provisions for long-term management and maintenance.[30]	22 of 38 (58%)	16 of 38 (42%)		IV.15. Long-Term Management and Maintenance Provisions	Yes

	Recommended Standard	Programs that meet standard	Programs that do not meet standard	Programs that somewhat meet standard	Report section with additional details	At least 50% meet the standard
21.	Agreement should specify the long-term management provisions to provide "assurances of long-term sustainability and stewardship...", or require inclusion in individual project plan [31]	13 of 38 (34%)	16 of 38[32] (42%)	9 of 38[33] (24%)	IV.15. Long-Term Management and Maintenance Provisions	No
22.	Agreement should specify financial and legal provisions for long-term management and maintenance (e.g., trust).[34]	2 of 38 (5%)	36 of 38 (95%)		IV.15. Long-Term Management and Maintenance Provisions	No
23.	Program sponsors should utilize accounting procedures to track payments received from permittees.[35]	35 of 38[36] (92%)	3 of 38 (8%)		IV.19. Managing Program Data	Yes

Endnotes

§ I. Executive Summary

[1] *Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines*. (February 6, 1990). [Hereinafter Mitigation MOA (1990).]
[2] Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 60 Fed. Reg. 58,605 (1995). [Hereinafter Banking Guidance (1995).]
[3] U.S. Department of the Army, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration. *Federal Guidance on the Use of In-Lieu-Fee Arrangements for Compensatory Mitigation under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act*. (October 31, 2000). [Hereinafter ILF Guidance (2000).]
[4] U.S. Army Corps of Engineers. Regulatory Guidance Letter No. 02-2. (December 24, 2002). [Hereinafter RGL 02-2 (2002).]
[5] Compensatory Mitigation for Losses of Aquatic Resources, 71 Fed. Reg. 15,520 (2006) (to be codified at 33 C.F.R. pt. 325 and 332, and 40 C.F.R. pt. 230) (proposed Mar. 28, 2006). p. 15,521. [Hereinafter Proposed Compensatory Mitigation Rule (2006).]
[6] Proposed Compensatory Mitigation Rule (2006), p. 15,521.
[7] Banking Guidance (1995), § II.F.1.
[8] ILF Guidance (2000), § II.B.

§ I.1. Characteristics of In-Lieu Fee Programs

[1] Wilkinson, Jessica and Jared Thompson. *2005 Status Report on Compensatory Mitigation in the United States*. Washington, D.C.: Environmental Law Institute. (2006). [Hereinafter 2005 Status Report, ELI (2006).]
[2] 2005 Status Report, ELI (2006), pp. 90-94.

§ I.2. Assessments of In-Lieu Fee Programs

[1] For additional information on recent studies of the effectiveness of compensatory mitigation, see the National Mitigation Action Plan web site (http://www.mitigationactionplan.gov/recentevals.html), and the presentation by Siobhan Fennessy, Ph.D. from the *Fifth Stakeholder Forum on Federal Wetlands Mitigation* (http://www2.eli.org/research/wetlandsmitigationforum2006.htm).
[2] U.S. Government Accountability Office. *Wetlands Protection: Corps of Engineers Does Not Have an Effective Oversight Approach to Ensure That Compensatory Mitigation Is Occurring*. Washington, DC: GAO. GAO-05-898. (September 2005). p. 5. [Hereinafter GAO (2005).]
[3] GAO (2005), p. 5.
[4] 2000 ILF Guidance, § IV.A.2.

§ I. Table 1. Comparison of Recommended Standards to In-Lieu Fee Programs Reviewed

[1] Banking Guidance (1995), § II.F.1.
[2] Programs that provide mitigation in advance of impacts include: North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).
[3] ILF Guidance (2000), §§ IV.A.2; IV.B.2.
[4] *Id*. at § IV.A.2.
[5] *Id*. at § IV.A.3.
[6] NRC (2001), p. 9.
[7] 10 of 38 commit to conducting an assessment of watershed needs; one program assessed sites in advance (National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000)); two programs reference a watershed plan (The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Wilderness Center, Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, Ohio (2004)).
[8] ILF Guidance (2000), § IV.A.4.
[9] Nineteen of the 38 in-lieu fee programs analyzed assess the ecological suitability of sites through *at least one* of the following means. Several programs fit into more than one of the following categories: agreement indicates that the sponsor will embark on an assessment of watershed needs to identify sites (10); program assessed sites in advance or agreement references a watershed plan (3); agreement

indicates that the sponsor will establish a site selection committee or coordinate with a diverse group of partners to support site prioritization and selection (12); agreement references the establishment of mitigation review team or relies upon already established mitigation review team for the review and approval of the program and mitigation sites (4).
[10] ILF Guidance (2000), § IV.A.6.
[11] Although over 50 percent of the programs meet this standard, the threshold should be higher to address the "exceptional circumstances" aspect of the standard.
[12] ILF Guidance (2000), § IV.A.7; *also* GAO (2001), p. 10.
[13] *Id*. at § IV.A.7. In its 2001 study, GAO found that "[w]hile Corps officials in 11 of the 17 districts with the in-lieu fee option told us that the number of wetland acres restored, enhanced, created, or preserved by in-lieu fee organizations equaled or exceeded the number of wetland acres adversely affected, data submitted by over half of those districts did not support these claims." (GAO (2001), p. 3.)
[14] Eight in-lieu-fee agreements outline mitigation ratios of at least 1:1 and 8 programs reference the national goal of achieving no net loss of wetlands (indicating a commitment to meeting a minimum 1:1 replacement ratio), including two of which also have ratios of at least 1:1.
[15] NRC (2001), p. 9.
[16] ILF Guidance (2000), § IV.B.6.
[17] *Id*. at § IV.A.7.
[18] *Id*. at § IV.A.8.
[19] *Id*. at § IV.A.8.
[20] *Id*. at § IV.A.8; IV.B.8.
[21] *Id*. at § IV.B.8.
[22] Additional programs may require the specific parameters to be detailed in the site-specific plan.
[23] ILF Guidance (2000), § IV.B.3.
[24] *Id*. at § IV.B.5.
[25] *Id*. at, § IV.B.5.
[26] *Id*. at § IV.B.7; *see also* NRC (2001), p. 87. The NRC report states that in-lieu fee programs should provide "assured compensation for all permitted activities" (NRC (2001), p. 9). GAO has also pointed out that "while officials . . . said that the ecological functions . . . lost from the adversely affected wetlands were replaced at the same level or better . . . they had not tried to assess whether mitigation efforts have been ecologically successful." (GAO (2001), p. 3-4.)
[27] Six programs describe performance standards somewhere other than the agreement or individual project plan, such as project proposal or permit.
[28] ILF Guidance (2000), § IV.A.2.
[29] *Id*. at § IV.B.9.
[30] *Id*. at § IV.B.10.
[31] NRC (2001), p. 9.
[32] Sixteen programs do not include any language on long-term management and maintenance.
[33] Nine programs mention long-term management and maintenance as a general requirement but do not give further specification.
[34] ILF Guidance (2000), § IV.B.10.
[35] GAO recommended that in-lieu fee agreements should outline the accounting procedures for tracking payments received from permittees (GAO (2005), p.11). ELI did not assess whether this was required in authorizing agreements, but rather determined through interviews whether or not program sponsors were maintaining and regularly updating this information.
[36] Thirty-five programs are required by their authorizing agreements or report that they maintain a database that, generally, tracks payments received.

§ II. Introduction
[1] Mitigation MOA (1990), § II.B.
[2] *Id*. at § II.C.
[3] *Id*. at § II.C.

§ II.1. History of In-Lieu Fee Policy

[1] Mitigation MOA (1990), § II.C.3.
[2] Banking Guidance (1995), § II.F.1.
[3] *Id*. at § II.F.1.
[4] *Id*. at § II.F.1.
[5] *Id*. at § II.F.1.

§ II.2. Federal Guidance on In-Lieu Fee Mitigation

[1] ILF Guidance (2000).
[2] *Id*. at § II.B.
[3] *Id*. at, § III.A.
[4] *Id*. at § IV. Emphasis added.
[5] *Id*. at § IV.B.
[6] *Id*. at § IV.B.

§ II.3. Additional Studies on In-Lieu Fee Mitigation

[1] U.S. General Accounting Office. *Wetlands Protection: Assessments Needed to Determine Effectiveness of In-Lieu-Fee Mitigation*. Washington, DC: GAO. GAO-01-325. (May 2001). p. 15. [Hereinafter GAO (2001).]
[2] GAO (2001), p. 3.
[3] National Research Council. *Compensating for Wetland Losses Under the Clean Water Act*. Washington, DC: National Academy Press. (2001). [Hereinafter NRC (2001).]
[4] NRC (2001), p. 9.
[5] GAO (2005), p. 19.
[6] GAO found that "For the 6 in-lieu-fee arrangements that were required to submit monitoring reports to the Corps, 5 had submitted at least one report. In addition, the Corps had conducted a compliance inspection for 5 of the 12 arrangements." (GAO (2005), p. 5.)

§ II.4. 2006 Proposed Rules on Compensatory Mitigation

[1] Proposed Compensatory Mitigation Rule (2006), pp. 15,529–15,556
[2] Proposed Compensatory Mitigation Rule (2006), p. 15,545.

§ II.5. Recent Court Rulings

[1] Rapanos v. United States, 547 U.S. ____, 2006 WL 1667087, at 10 (June 19, 2006) (Scalia, J., plurality).
[2] *Id*. at 9, 16.
[3] 33 U.S.C. § 1251(a).
[4] Rapanos, 2006 WL 1667087, at 33 (Kennedy, J., concurring).
[5] Rapanos, 2006 WL 1667087, at 21 (Roberts, C.J., concurring).
[6] *Id*. at 20-21; *see also* Rapanos, 2006 WL 1667087, at 45 (Breyer, J., dissenting).

§ III.1. Recent Trends in In-Lieu Fee Mitigation

[1] 2005 Status Report, ELI (2006).
[2] *Id*. at p. 15. Reports 42 approved programs. Since publication, ELI has identified three additional programs and one program that was listed as pending has been approved.
[3] The eight programs that are approved but were not interviewed are: Desert Foothills Land Trust, Desert Foothills Land Trust In-lieu-fee Mitigation Program, Arizona (2005); La Paz County, La Paz County Endangered Species Fund 290, Arizona (2005); Maricopa County Parks and Recreation Department, Maricopa Parks and Recreation Department In-lieu-fee Program, Arizona (2005); McDowell Sonoran Conservancy, McDowell Sonoran Conservancy In-lieu-fee Program, Arizona (2005); National Audubon Society, National Audubon Society In-lieu-fee Program, Arizona (2005); Prescott Creeks Preservation Association, Prescott Creeks Preservation Association In-lieu-fee Program (2006);

Santa Ana Watershed Association, Santa Ana River Watershed Trust Fund for Arundo Eradication, California (1995); Superstition Area Land Trust, Superstition Area Land Trust In-lieu-fee Program, Arizona (2005).

[4] The suspended programs is: The Nature Conservancy, Sacramento Corps District Program, California (2000). The Sacramento district reported that this program does not comply with the 2000 ILF Guidance and will not be used until the agreement is modified to bring it into compliance, a process that the sponsor has not initiated.

[5] Programs with approval pending include: Bureau of Land Management, Arizona State Office, Bureau of Land Management In-lieu-fee Program, Arizona (Los Angeles district); California Department of Fish and Game, California Department of Fish and Game In-lieu-fee Program, California (Los Angeles district); Chelan-Douglas Land Trust, Lake Chelan Service Area In-Lieu-Fee, Washington (Seattle district); Ducks Unlimited (Ann Arbor, Michigan), Ducks Unlimited Detroit District In-Lieu Fee Program, Michigan, Indiana (Detroit district); Idaho Fish and Wildlife Foundation, Idaho Fish and Wildlife Foundation In-Lieu Fee Program, Idaho (Walla Walla district); Legacy Land Trust, Spring Creek In-Lieu Fee Program, Texas (Galveston district); Sunflower Land Trust, In-Lieu Fee Mitigation Trust Fund, Kansas (Kansas City district); The Nature Conservancy-Arizona Chapter, The Nature Conservancy-Arizona Chapter Program, Arizona (Los Angeles district); The Nature Conservancy-Delaware Region, The Nature Conservancy-Delaware Region Program, Delaware (Philadelphia district); The Watershed Institute, Kansas Aquatic Resources Trust Fund, Kansas (Kansas City district); West Virginia Department of Environmental Protection; West Virginia In-Lieu Fee Program, West Virginia (Huntington and Pittsburgh districts).

[6] Robertson, Morgan. 13 April 2006. U.S. Environmental Protection Agency. Personal correspondence. Reports that Kane and Lake Counties, Illinois both have in-lieu fee programs.

[7] 2005 Status Report, ELI (2006), pp. 90-94.

[8] Environmental Law Institute. *Banks and Fees: The Status of Off-Site Wetland Mitigation in the United States*. Washington, D.C.: Environmental Law Institute. (2002), pp. 99-114. [Hereinafter Banks and Fees (2002).]

[9] *See* § III.1., note 4.

[10] The programs from 2001 that have since been reclassified include: Katy Prairie Conservancy, Galveston Corps District Program, Texas (Galveston district); National Fish and Wildlife Foundation, National Fish and Wildlife Foundation In-Lieu Fee Program, Texas (Galveston district); Palm Beach County, Palm Beach County In-Lieu Fee Program, Florida (Jacksonville district); South Florida Water Management District, South Florida Water Management District In-Lieu-Fee Program, Florida (Jacksonville district); Texas Parks and Wildlife, Texas Parks and Wildlife In-Lieu-Fee Program, Texas (Galveston district). In addition, four entries for the Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999) that were listed separately in *Banks and Fees* to correspond to each of the Corps districts that are party to that agreement have been consolidated into a single entry for the program for this report.

[11] Sold-out programs include: Cleveland Museum of Natural History, Singer Lake Bog In-Lieu-Fee Program, Ohio (Huntington district); Ohio Wetlands Corporation, Ohio Wetlands Corporation In-Lieu-Fee Program (Lake Choctaw), Ohio (Huntington district).

[12] As of October 2005, the Corps districts reported that the following two programs were inactive but did not provide any additional details about the status of these programs: CorLands, Chicago District In-Lieu-Fee Program, Illinois (Chicago district); Delta Land Trust, Delta Environmental Land Trust Association Program, Louisiana and Mississippi (Vicksburg district).

[13] Programs that were terminated before becoming active include: Clallam County, Clallam County In-Lieu-Fee Program, Washington (Seattle district); Ducks Unlimited, Ducks Unlimited In-Lieu-Fee Program, Idaho (Walla Walla district); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Idaho (Walla Walla District).

§ III.2. Ad Hoc In-Lieu Fee Mitigation

[1] The 2000 ILF Guidance states that for impacts authorized under *individual permits*, in-lieu fee arrangements are considered appropriate if "developed…, reviewed, and approved using the process established for mitigation banks in the Banking Guidance. MBRTs should review applications from such in-lieu-fee sponsors to ensure that such agreements are consistent with the Banking Guidance." (ILF Guidance (2000), § III.A.) For impacts authorized under *general permits*, the ILF Guidance lays out detailed recommendations that should be addressed "for *any* proposed use of in-lieu-fee mitigation to offset unavoidable impacts associated with a discharge authorized under a general permit…." (ILF Guidance (2000), § IV. Emphasis added). That section of the guidance recommends the establishment of a "formal in-lieu-fee agreement" between the sponsor and the Corps (ILF Guidance (2000), § IV.B.). In its 2001 report, NRC expressed its position that under both the individual and general permit program, the 2000 ILF Guidance recommends that a formal in-lieu fee agreement be established if funds are to be paid in-lieu of other forms of compensatory mitigation. Under the individual permit program, NRC states that the

2000 ILF Guidance "provides that in-lieu fee arrangements may be used if there is a formal agreement that is developed, reviewed and approved through the interagency MBRT process." (NRC (2001), p. 70.) Under the general permit program, NRC concludes that the Guidance "requires that in-lieu fee sponsors who wish to offset impacts from activities authorized by general permits enter into a formal agreement with the Corps," and that the agreement "should contain provisions very similar to those in mitigation banking agreements." (NRC (2001), p. 70.) In its 2005 study, GAO stated that "some districts have not established agreements *called for in federal guidance* with . . . in-lieu-fee sponsors." (GAO (2005), p. 6. Emphasis added.)

[2] This program is authorized by the U.S. Army Corps of Engineers South Pacific Division, which is headquartered in California. The division encompasses part or all of 10 states (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming).

[3] 2005 Status Report, ELI (2006), p. 19.

[4] GAO 2001, p. 4.

[5] In its 2001 study, GAO noted that "since January 1, 1996, 24 of the 38 Corps districts allowed developers to mitigate adverse impacts to wetlands through ad hoc arrangements." (GAO (2001), p. 14.) In its 2005 study, GAO reported that out of the seven districts reviewed, "three districts had not established formal agreements with third parties to document the objectives and implementation of mitigation banks or in-lieu-fee arrangements, as called for in federal guidance." (GAO (2005), p. 25.)

[6] Districts have various names for one-time, project-specific in-lieu fee projects, including "Third party mitigation" (Kansas City district), "Specific In-Lieu Fee" (Little Rock district), "Ad hoc ILF Mitigation" (Los Angeles district), "Project specific third-party mitigation" (St. Louis district) and "Approved mitigation" (New Orleans district). All of these forms of mitigation, however, appear to serve the same function. As a result, for the purposes of this report, ELI considers all of these forms together as "project-specific in-lieu fee mitigation."

[7] The 17 districts that allow or might allow project specific in-lieu fee arrangements are the Baltimore district, Kansas City district, Little Rock district, Los Angeles district, Louisville district, Memphis district, New England district, New Orleans district, New York district, Norfolk district, Omaha district, Philadelphia district, Pittsburgh district, Seattle district, St. Louis district, Walla Walla district, and Wilmington district.

[8] The 11 districts that do not allow project specific in-lieu fee arrangements are the Alaska district, Chicago district, Detroit district, Mobile district, Nashville district, Portland district, Rock Island district, San Francisco district, Savannah district, Tulsa district, and Vicksburg district.

[9] The districts requiring monitoring plans include the Los Angeles district, New York district and St. Louis District.

[10] The districts that require pre-approval of projects or sponsors include the Baltimore District, which convenes a four agency panel to review and approve individual stream mitigation projects and the Walla Walla district, which reviews the proposed mitigation sponsor and the proposed project for suitability.

[11] In its 2001 report, GAO found that "[o]versight of mitigation efforts performed under ad hoc arrangements was lacking in almost half of the 24 districts using such arrangements. Officials in seven districts said that they had not monitored either the mitigation efforts or use of funds made under ad hoc arrangements, and officials in three others did not know whether such monitoring had occurred. In addition, officials in eight districts said that they had never taken steps to determine whether mitigation efforts performed under ad hoc arrangements had been ecologically successful, and officials in two others did not know whether such steps had been taken. Officials in some districts gave reasons for the limited oversight. For example, officials in four districts said monitoring was unnecessary because developers make payments to organizations that the Corps was confident would use the payments to do adequate mitigation, such as The Nature Conservancy. Further, officials in some districts said that they had limited resources for oversight." (GAO (2001), p. 15.)

[12] In its 2001 report, GAO found that "EPA and Corps headquarters officials, as well as Corps district officials, disagree as to whether ad hoc mitigation is covered by the October 2000 in-lieu-fee guidance. Corps headquarters officials said that ad hoc mitigation is not covered under the guidance. EPA headquarters officials disagreed and said that mitigation is covered by the guidance when a third party other than a mitigation bank performs the mitigation and responsibility for the ecological success is transferred to the fund recipient as a condition of the section 404 permit . . . Corps district officials disagree on whether ad hoc mitigation is covered by the 2000 guidance." (GAO (2001), p. 14-15.)

§ III. Box 1: In-Lieu Fee Mitigation in the Corps' Los Angeles District

[1] Information presented in this box was provided by: Lisa Mangione and Marjorie Blaine. 24 May 2006. Los Angeles district, U.S. Army Corps of Engineers. Personal communication.

[2] Corps FY 03 data.
[3] GAO (2005).

§ III.3. Pre-/Post-Guidance Comparisons

[1] The 27 active in-lieu fee arrangements prior to the release of the 2000 ILF guidance included: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[2] The programs operating under authorizing agreements established prior to the release of the 2000 ILF Guidance include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).

[3] The programs operating under authorizing agreements established after the release of the 2000 ILF Guidance include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas

Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[4] In addition, seven recently approved programs that were not interviewed for this study operate under agreements that were established after the release of the ILF Guidance (2000) (*see also* § III.1., note 3).

[5] In this discussion of how the operation of in-lieu fee programs changed between 2000 and 2005 and how programs changed based on the ILF Guidance (2000), the term "program" refers to both formally authorized in-lieu fee programs and to in-lieu fee arrangements that were active in 2000 but lacked a formal authorizing instrument. All of these programs are now formally authorized as of 2005.

[6] Programs with authorizing instruments that have been updated or are in the process of being updated include: Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998) (agreement currently under revision); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[7] Programs that were informally active before 2000 but not formally authorized until after 2000 include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003).

[8] New programs created to mitigation impacts from state departments of transportation include: North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004).

[9] Programs that have been informally suspended or put on hold include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993).

[10] Programs with a new bank account is: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998).

[11] The program with increased fees and an expanded scope is: Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999).

[12] The program with consolidated administration is: Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).

[13] The program that reported minor procedural changes is: New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988).

[14] Programs that were formally authorized in response to the 2000 ILF Guidance include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003).

[15] Programs that were revised in response to the 2000 ILF Guidance include: Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999).

[16] Programs reporting that the Corps has been more attentive since the 2000 ILF Guidance was released include: National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); Santa Monica Mountains Conservancy, Los Angeles County

Aquatic Resource In-lieu Fee Mitigation Program, California (2000); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).
[17] Programs that noted an increased focus on the time horizons and the completion schedule for mitigation projects include: Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).
[18] The program that reported that it is now run on a more case-by-case basis is: The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).
[19] The program that has seen usage increase is: The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998).
[20] The program that has seen usage decrease is: Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).
[21] The five programs that reported that their development was influenced by the 2000 ILF Guidance include: Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

§ III. Box 2: In-Lieu Fee in Florida and Regional Offsite Mitigation Areas (ROMAs)

[1] FL. STAT. § 373.4137 (2006).
[2] *See id.* §§ 373.414(1)(b)1–2.
[3] *See id.* § 373.4135(6).
[4] *See id.* § 373.4135(6) (2006). In-lieu fee arrangements that do not meet these thresholds are regulated under FL. STAT. §§ 373.414(1)(b)1–2 (2006). The thresholds were created under a 2000 amendment to Florida's mitigation laws and regulations.
[5] FL. STAT. § 373.4135(6)(c) (2006).
[6] *See id.* § 373.4135(6)(c)8.
[7] *See id.* § 373.4135(7).

§ IV.1. Credit Sales and Mitigation Activities Undertaken

[1] Programs that sell credits other than wetland or stream credits are: Five programs in the Alaska district that sell credits for "wetland, stream and potential intertidal applications" including: Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998). Also, in the Norfolk district, The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004) can sell credits for wetland, stream, subtidal and intertidal habitats, and The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995) can mitigate impacts to wetlands, streams, open water, mud flats, submerged aquatic vegetation (SAV), and oyster reefs. For additional information, *see:* 2005 Status Report, ELI (2006).
[2] The statute authorizing the New Jersey Wetland Mitigation Council's Land Use Regulation Program went into effect July 1, 1988. This is the first formal authorization of an in-lieu fee program that we are aware of.
[3] The five programs that have collected a total of approximately $249 million include: Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996) – $135.3 million; Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003) – $22.9 million; North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003) – approximately $54 million; Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002) – $18.2 million; The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995) – $18.6 million.
[4] The following programs were able to provide data about the amount of impacts being offset by the program since its inception: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of

Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[5] Of the four stream mitigation programs that reported impacts, only the program sponsored by the Missouri Conservation Heritage Foundation tracks stream impacts in acreage, the rest use linear feet.

[6] The following programs were able to provide the total amount of mitigation accomplished by the program: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[7] The figures for the amount of mitigation conducted by these programs encompass all types of mitigation, including preservation (acquisition) and enhancement, and also include activities such as invasive species removal and acreage that was acquired, restored or enhanced using in-lieu fee funds in conjunction with other funding sources. Some programs that reported mitigation amounts did not report the amount of impacts being offset by their programs, so the statistics for impacts and mitigation reported in this paragraph are not directly comparable. In particular, the two programs sponsored by the North Carolina Ecosystem Enhancement Program have conducted about 22,000 acres of mitigation, but did not report the amount of impacts being offset.

[8] ILF Guidance (2000), § IV.A.7.

[9] GAO (2001), p. 3.

[10] The programs for which we were able to calculate wetland replacement ratios include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[11] RGL 02-2 (2002). The guidance states that creation (establishment) leads to a gain in wetland acres; restoration/re-establishment leads to a gain in wetlands acres; restoration/rehabilitation results in a gain in wetland function, but not a gain in wetland acres; enhancement does not result in a gain in wetland acres; and preservation (protection/maintenance) does not result in a gain in wetland acres. ELI did not ask the programs to distinguish between the two forms of restoration. The estimates in this study assume that both creation and restoration result in a net gain in wetland acres *if permit conditions are met*. The replacement ratios are based on acres of impacts and acres of mitigation. In order to accurately estimate replacement ratios, ELI's minimum data requirements were: data on acres of wetland impacts, acres of wetland mitigation, and the types of wetland mitigation used (i.e., restoration, creation, enhancement, or preservation).

[12] The programs we estimate to meet the goal of no net loss include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[13] This estimate of the number of programs meeting the no net loss goal does not attempt to take temporal losses into consideration. This figure represents those programs that had conducted restoration and/or creation activities equal to or greater than the amount of impacts being offset through the program at the time data were supplied to us.

[14] Program with wetland replacement ratio of 1:1 is: Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[15] Program with wetland replacement ratio of 3.8:1 is: The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[16] Programs with wetland replacement ratios of 0:1 because they have not yet conducted any mitigation include: Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004).

[17] Programs with wetland replacement ratios of 0:1 because all mitigation conducted has been preservation include: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[18] Programs meeting no net loss for streams include: Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999) (ratio is 2.8:1); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002) (ratio is 1:1).

[19] Programs with stream replacement ratios below 1:1 include: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997) (ratio is 0:1); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995) (ratio is 0.3:1).

[20] For example, it is unclear whether stream restoration is limited to only channel restoration or includes bank stabilization or establishment of riparian buffers. Similarly, it is not clear whether stream enhancement includes riparian buffer establishment, bank stabilization, or installation of in-stream habitat structures.

[21] Six programs reported that mitigation is achieved through 100 percent preservation: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Wilderness Center, Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, Ohio (2004).

[22] One program reported that mitigation is achieved through 75-99 percent preservation: Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999).

[23] Five programs reported that mitigation is achieved through 50-74 percent preservation: National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[24] The percentages of mitigation conducted using each mitigation type are based on actual data when they were supplied by the in-lieu fee program. Where data were not available, the percentages are the best estimates of the individuals interviewed about these programs. To the best of our knowledge, these figures represent the actual amount of mitigation conducted as of the time that the data were reported. Some of the programs, however, do not clearly distinguish between projects that have been completed and projects that are planned or are underway and it is possible that some projects that are not yet completed are included in these data.

[25] The nineteen programs that provided both the total amount of wetland mitigation conducted and the percentage accomplished through each mitigation type include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[26] The estimates reported in this paragraph were calculated by multiplying the total amount of mitigation accomplished by each program by the percent of mitigation accomplished through each mitigation type. The amounts of mitigation by type for each program were then added to calculate the total amount of mitigation nationwide accomplished through each mitigation type. The nationwide totals for each mitigation type were then converted to percentages of the total amount of mitigation reported by these programs.

[27] The eleven programs that provided enough information to calculate the type of mitigation used as a percentage of impacts include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); The Nature Conser-

vancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[28] The seven programs that provided both the total amount of stream mitigation conducted and the percentage of stream mitigation conducted through each mitigation type include: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[29] To the best of our knowledge, the programs reported the actual amount of mitigation they have conducted as of the time that the data were reported. However, some of the programs do not clearly distinguish between projects that have been completed and projects that are planned or are underway and it is possible that some projects that are not yet completed are included in these data. These programs may not be representative of all the in-lieu fee programs that offset impacts to streams and these statistics may not accurately represent nationwide trends.

[30] The three programs that provided enough information to calculate the type of mitigation used as a percentage of impacts include: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[31] Program that conducts invasive species removal and remediation is: Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999).

[32] Program that has done a mix of oyster reef creation and restoration, and sediment remediation is: The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

[33] The programs that reported the number of projects they have initiated and/or completed include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar

Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[34] The programs that reported the amount of funds spent or allocated include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

§ IV.2. Program Sponsors

[1] Two of these 21 programs are sponsored by non-profit arms of state wildlife agencies. Missouri Conservation Heritage Foundation is a private non-profit arm of the Missouri Department of Conservation and Tennessee Wildlife Resources Foundation is a limited liability company created to administer the in-lieu fee program for the Tennessee Wildlife Resources Agency. *See:* Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002).

[2] The following programs are sponsored by nongovernmental conservation organizations: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, Ohio (2004); and Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[3] The following programs are sponsored by state natural resource agencies: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Florida Department of Environmental Protection/Water

Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000).

[4] The following programs are sponsored by state fish and wildlife agencies: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004).

[5] The following programs are sponsored by local governments/agencies: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).

[6] One program is sponsored by a university: Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999).

[7] The following programs are authorized through an agreement: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[8] The following programs are authorized through state legislation: Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993).

[9] The following program is authorized under state agency regulations: Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991).

[10] The following programs are authorized through state legislation and under an agreement: Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).
[11] The following programs are authorized through local ordinance/county resolution: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).

§ IV. Box 3: Stream Mitigation

[1] For example, The Nature Conservancy's Virginia Aquatic Resources Trust Fund (Virginia, 1995) has seven different categories for stream mitigation projects including restoration, stabilization, preservation, livestock exclusion, anadromous fish access, river buffer restoration and river buffer preservation. *See* "2004 Report of Activity by the Virginia Aquatic Resources Trust Fund." (September 30, 2004).

§ IV.3. Characteristics of In-Lieu Fee Funds

[1] The following three ILF programs do *not* explicitly stipulate whether or not funds are to be retained in a separate account: Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).
[2] Programs with authorizing agreements that stipulate that funds be kept in an FDIC-insured account include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).
[3] Standard language for many of these programs reads as follows: "The Great Land Trust agrees to place all funds received pursuant to contributions made under Agreement into a FDIC-insured bank account or instrument separate from other funds of its organization." (*Agreement Between the Great Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act.* (July 16, 1998). p. 2.)
[4] Programs with instruments that stipulate that funds be kept in an interest-bearing escrow account include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).
[5] As an example: The Trust Fund "will hold any funds collected pursuant to this MOU in an interest-bearing escrow account in an investment instrument or banking institution so as to earn interest while maximizing the safety and preservation of the principal amount of funds in the account." (*Memorandum of Understanding Between the Florida Audubon Society and the U.S. Army Corps of Engineers.* (May 26, 1998). p. 3. ¶ 7.)
[6] Programs that retain funds in a state treasury include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993).

[7] For example: "The In-Lieu Fee Program fund will be established by the CONSERVANCY in an interest-bearing account within the State Treasury administered by the CONSERVANCY to receive monies from individuals or entities receiving CORPS Section 404 permits and, when appropriate, resolving Section 404 enforcement actions…" See *Agreement for Establishment and Administration of the Calleguas Creek Watershed (Ventura County, California) Aquatic Resource In-Lieu Fee Compensatory Mitigation Program Between the U.S. Army Corps of Engineers, Los Angeles District and the California Coastal Conservancy.* (March 17, 2003). p. 2.

[8] Programs with instruments that stipulate that funds be kept in a separate holding account or fund include: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).

[9] Many of these tend to the vague side, such as the *Agreement Between the Environmental Resource Management Center of Northern Kentucky University, the Northern Kentucky University Foundation, and the Louisville District of the U.S. Army Corps of Engineers.* (March 6, 2001), p. 2: "The Foundation will hold such in-lieu-fees in a separate fund, designated as the Stream Corridor Restoration Fund, for the sole use of the [Northern Kentucky University Environmental Resource Management] Center." See also: *Historic Ricefields Association Waccamaw and Pee Dee River Basins In-Lieu Fee Mitigation Program Implementation Instrument.* (September 12, 2000), p. 5: "Funds paid into the In-Lieu-Fee project for credits will be held by the Historic Ricefields Association at its corporate headquarters in Georgetown, South Carolina, placed in a designated and numbered holding account and invested with the purpose of protecting the purchasing value of the principle." See also: *Agreement Between the Nature Conservancy and the U.S. Army Corps of Engineers, Fort Worth District to Establish an In-Lieu Fee Program in the Fort Worth District.* (November 19, 1998), p. 4: "The Conservancy shall hold and invest in-lieu fees collected pursuant to this agreement in a manner consistent with the Conservancy's policies and procedures for the investment of its own funds. The Conservancy will establish separate accounts in its financial records for each trust fund and will credit each account with its share of the investment income earned." See also: The legislation establishing North Carolina's Wetland Restoration Program (now the North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998)), which states that the Fund "is established as a nonreverting fund within the Department" (N.C GEN. STAT. § 143-214.12(a) (2005)).

[10] Programs with instruments that specify that interest earned by in-lieu fee funds will remain with the funds include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[11] Programs with authorizing instruments that indicate that funds are protected from use for purposes not specified in the instrument include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[12] *Agreement for Establishment and Administration of the Los Angeles County Aquatic Resource In-Lieu Fee Mitigation Program Between the U.S. Army Corps of Engineers, Los Angeles District and the Santa Monica Mountains Conservancy.* (May 22, 2000). p. 3.

[13] *Agreement Concerning In-Lieu Mitigation Fees Between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers.* (October 18, 2002). § IV.B.

[14] Programs in the Los Angeles district that have more vague language to restrict the use of funds include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004).

[15] *Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the San Gabriel Mountains Regional Conservancy Regarding the Establishment and Operation of the San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program.* (September 2, 2004). § 4.2.3.

§ IV.4. Types of Impacts Eligible for Paying into In-Lieu Fee Programs

[1] The 26 programs that restrict the types or size of projects or types of permittees are: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Miti-

gation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[2] Programs that accept impacts from nationwide permits, regional general/general permits, and individual permits include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[3] Programs accepting funds only from impacts authorized under nationwide and regional general/general permits include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004).

[4] *Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and Mountains Restoration Trust Concerning the Establishment and Operation of the Mountains Restoration Trust In-Lieu Fee Program.* (September 2, 2004). § 2.2.

[5] The one program that only accepts impacts authorized under individual permits or regional general/general permits is: The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[6] The program that only accepts impacts required under nationwide permits is: Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999).

[7] The two programs that only accept impacts authorized under regional general/general permits include: San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).

[8] Programs that only provide mitigation for road construction impacts include: Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003).

[9] *Memorandum of Agreement among the Federal Aviation Administration, U.S. Army Corps of Engineers, Alaska Department of Transportation and Public Facilities, U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game Regarding Impacts to Wetland and Other Aquatic Resources, Mitigation and Airport Improvement Projects in Alaska.* (January 10, 2003). pp. 1-2.

[10] Programs that accept fees for impacts authorized under local ordinances include: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).

[11] New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988).

[12] National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[13] National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996).

[14] Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002).

[15] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004). § 2.

[16] The program that accepts fees for impacts for which the Corps does not claim jurisdiction is: Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).
[17] Programs that only accept fees for impacts smaller than 0.5 acres include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996).
[18] Programs that only accept fees for impacts smaller than one acre include: Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000).
[19] The program that accepts fees for impacts including less than 3.0 acres of waters (including wetlands) other than streams and/or less than 2,000 linear feet of streams is: The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).
[20] The program that accepts fees for impacts of 7.0 acres or less is: San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004).
[21] The program that accepts fees for impacts of 10.0 acres or less is: Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995).
[22] The program that provides mitigation for impacts that fall below the acreage threshold in the regional permit for the Corps' Chicago district is: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000).
[23] Los Angeles district programs that do not provide mitigation for impacts to unique aquatic resources include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000).
[24] *Beidler Forest In-Lieu Fee Mitigation Program Implementation Instrument*. Signatories: National Audubon Society, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, Natural Resources Conservation Service, South Carolina Department of Health and Environmental Control, South Carolina Department of Natural Resources, South Carolina Historic Preservation Office, and National Marine Fisheries Service. (September 12, 2000). Part I, p. 9.
[25] *Memorandum of Understanding Between The Nature Conservancy and the U.S. Army Corps of Engineers [Norfolk District].* (August 5, 1995). § 3.A(2).
[26] Programs that are not to be used if mitigation bank credits are available include: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000): *see* DUPAGE COUNTY, ILL., COUNTYWIDE STORMWATER AND FLOOD PLAIN ORDINANCE. §§ 15-136.5 (2005); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995): *see* LA. ADMIN. CODE tit. 43 § 724.J.5.e (2004); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988): *see* N.J. ADMIN. CODE tit. 7, § 7A-15.5 (d) (2003); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993): *see* OR. ADMIN. R. 141-085-0131 (2006).
[27] LA. REV. STAT. ANN. § 214.42.D (West 2004).
[28] *Agreement Between the Environmental Resource Management Center of Northern Kentucky University, the Northern Kentucky University Foundation, and the Louisville District of the U.S. Army Corps of Engineers.* (March 6, 2001), p. 1.
[29] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), § 1(B).
[30] *Memorandum of Agreement Regarding Establishment of the Santa Margarita Arundo Control Fund In-Lieu Fee Mitigation Program*. Signatories: U.S Army Corps of Engineers, Los Angeles District; Mission Resource Conservation District. (February 15, 1999). § IV.C.
[31] Mangione, Lisa. 24 May 2006. Los Angeles district, U.S. Army Corps of Engineers. Personal communication.

§ IV.5. Additional Sources of Funding

[1] Programs that accept funds from sources other than permittees include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, USACE South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[2] Programs that may accept funds generated by the resolution of enforcement and compliance action initiated by the Corps include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Maryland Department of Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[3] Programs that may accept "other funds" include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

[4] *Agreement Concerning In-Lieu Mitigation Fees Between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers.* (October 18, 2002), § III.

[5] *Memorandum of Agreement among the Federal Aviation Administration, U.S. Army Corps of Engineers, Alaska Department of Transportation and Public Facilities, U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game Regarding Impacts to Wetland and Other Aquatic Resources, Mitigation and Airport Improvement Projects in Alaska.* (January 10, 2003), p. 7.
[6] N.C. GEN. STAT. § 143-214.12(a).
[7] *Memorandum of Understanding Between the North Carolina Department of Environment and Natural Resources and the U.S. Army Corps of Engineers, Wilmington District.* (November 4, 1998), § III.
[8] LA. REV. STAT. ANN. § 214.42(E) (West 2004).
[9] *TWRF, LLC "In Lieu Fee" Stream Mitigation Program Memorandum of Agreement*. Signatories: Tennessee Department of Environment and Conservation, U.S. Army Corps of Engineers Memphis District, U.S. Army Corps of Engineers Nashville District, Tennessee Valley Authority, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Tennessee Wildlife Resources Agency, and Tennessee Wildlife Resources Foundation, LLC. (August 16, 2002), § 3.4(b).
[10] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), § 2.
[11] *Id*. at § 1(A).

§ IV.6. Service Areas

[1] ILF Guidance (2000), § IV.B.3.
[2] Banking Guidance (1995), § II.D.3.
[3] Programs that use USGS HUCs include: Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003) (8-digit HUC); Maryland Department of Environment, Nontidal Wetland Compensation Fund, Maryland (1991) (6-digit HUC); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002) (6-digit HUC or, ideally, 8-digit HUC); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998) (generally, USGS hydrologic units); The Wilderness Center, Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, Ohio (2004) (for impacts to certain categories of wetlands (defined by Ohio EPA), 8-digit HUC watersheds; for impacts to other categories of wetlands, the entire Huntington district in Ohio; for impacts to stream habitat, 8-digit HUC).
[4] Programs that use watersheds defined by state programs include: Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004) (the 16 "Major Montana Watershed Basins" (based on hydrologic unit boundaries) currently utilized by the Montana Department of Transportation); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998) (Basinwide Wetland and Riparian Restoration Plans, generally consistent with 8-digit HUC); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003) (also Basinwide Wetland and Riparian Restoration Plans); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993) (one of the 18 Oregon drainage basins identified by the Oregon Water Resources Department, generally 4-digit HUC).
[5] Program that uses general watershed definition is: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000) (watershed planning area).
[6] Programs that utilize geographically defined, watershed-based service areas include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).
[7] Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000).
[8] The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

[9] Programs that use local-level political boundaries to define service areas include: Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004) (Santa Monica Mountains region of the counties of Los Angeles and Ventura); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991) (Sacramento County); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000) (Los Angeles County and the Ventura County portion of the Santa Monica Mountains where SMMC or their partners are active); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004) (the geographic scope is the boundaries of Pima County, Arizona).
[10] Programs that use state-level political boundaries to define service areas include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004) (State of Arizona); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998) (Southeast Alaska); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995) (Commonwealth of Virginia).
[11] Program using a multi-state area as its service area: National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (2000) (boundaries of the Corps of Engineers South Pacific Division (California, Nevada, Arizona, Utah, New Mexico, western and southern Colorado, and west Texas)).
[12] *Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the Tucson Audubon Society Concerning the Establishment and Operation of TAS Conservation Account.* (February 10, 2004), § 2.4.
[13] Programs with authorizing instruments that specify that mitigation projects should occur as close to the permitted impacts as practicable include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

§ IV.7. Program Administration

[1] Programs with agreements that allow some portion of collected funds to be used for program administration include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-

Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[2] Programs with agreements that place an upper limit or percentage limit on how much of the fund can be diverted to administrative expenses include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004) – 5 percent; Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998) – 15 percent; California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003) – 10 percent; Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998) – 2 percent; Historic Ricefields Association, Historic Ricefields Program, South Carolina (2000) – 15 percent; Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999) – 2 percent; Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003) – 5 percent; Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000) – 5 percent; Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999) – 10 percent (except for acquisition, in which case, overhead fee will be 3 percent for first $500,000, 2 percent for second $500,000, and 1 percent for acquisition purchases greater than $1M); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004) – 15 percent; National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000) – 15 percent; Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999) – up to $24,000; Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999) – 13 percent; Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000) – 10 percent; Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998) – 2 percent; The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998) – 2 percent; The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004) – 2 percent; The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004) – 5 percent; The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995) – 3 percent; and Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004) – 5 percent.

[3] Programs with agreements that do not specify a limit on how much of the fund can be diverted to administrative expenses include: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).

[4] Programs that support administration through a means other than collected fees include: Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Oregon

Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).
[5] One program did not specify how program administration is supported in its authorizing agreement or in ELI's interview with the program administrator: The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).
[6] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), § 7.

§ IV.8. Site Identification
[1] ILF Guidance (2000), § IV.A.2.
[2] *Id*. at § IV.B.2.
[3] The one program that identified a mitigation site in advance is: The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).
[4] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004); Moyer, Nathan. 8 March 2006. The Wilderness Center. Personal interview.
[5] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), p. 1; Moyer, Nathan. 8 March 2006. Personal Interview.
[6] Programs with general areas where mitigation projects are to be carried out or with agreements that reference watershed plans that do so include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).
[7] *See* § IV.8., note 5.
[8] National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000).
[9] Mangione, Lisa and John Markham. 21 July 2005. Los Angeles district, U.S. Army Corps of Engineers. Personal interview.
[10] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), § 3(B).
[11] ILF Guidance (2000), § IV. A. 3.
[12] Programs with agreements that specify that the sponsor will conduct an assessment of watershed needs include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004).
[13] *Agreement Between the Georgia Land Trust Service Center and the U.S. Army Corps of Engineers, Savannah District.* (July 3, 1997), § 8.
[14] Programs with agreements that state that the sponsor will identify projects based on the specific resource needs of the watershed include: Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).
[15] Programs with authorizing instruments that stipulate that the sponsor will work with the Corps to identify potential projects include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New

Mexico, Nevada, Texas, Utah) (2000); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).
[16] LA. ADMIN. CODE tit. 43 § 724.I.12. (2004).
[17] Heffner, Kelly. 21 August 2005. Pennsylvania Department of Environmental Protection. Personal interview. *See:* http://www.dep.state.pa.us/dep/deputate/watermgt/wc/subjects/wwec/general/wetlands/wetpart.txt.
[18] Dalton, Barry. 21 November 2005. Northern Kentucky University. Personal interview.
[19] Beston, George. 5 August 2005. Maryland Department of Environment. Personal interview.
[20] Programs with authorizing instruments that indicate that the sponsor will establish a site selection committee or work with partners to identify sites include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004).
[21] *Agreement Between Kachemak Heritage Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act.* (March 3, 1999), p. 2.
[22] *Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana.* Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004), § 4(b).
[23] *Id*. at § 10.
[24] *Id*. at § 10.
[25] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004).
[26] The Elizabeth River Restoration Trust. "Annual Report of Activity." (October 31, 2005), p. 3.
[27] Programs that use mitigation review teams to review and approve the program and/or mitigation sites include: Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).
[28] Banking Guidance (1995).
[29] *Agreement Concerning In-Lieu Mitigation Fees Between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers.* (October 18, 2002), p. 1.
[30] *TWRF, LLC "In Lieu Fee" Stream Mitigation Program Memorandum of Agreement*. Signatories: Tennessee Department of Environment and Conservation, U.S. Army Corps of Engineers Memphis District, U.S. Army Corps of Engineers Nashville District, Tennessee Valley Authority, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Tennessee Wildlife Resources Agency, and Tennessee Wildlife Resources Foundation, LLC. (August 16, 2002), p. 2.
[31] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004).
[32] *Historic Ricefields Association Waccamaw and Pee Dee River Basins In-Lieu Fee Mitigation Program Implementation Instrument.* (September 12, 2000).
[33] *Memorandum of Understanding Between the Florida Audubon Society and the U.S. Army Corps of Engineers.* (May 26, 1998), § 6; *Agreement Between the Nature Conservancy and the U.S. Army Corps of Engineers, Fort Worth District to Establish an In-Lieu Fee Program in the Fort Worth District.* (November 19, 1998), p. 3.

[34] Programs with agreements specifying that assessments should be conducted to prioritize projects are: Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).
[35] *TWRF, LLC "In Lieu Fee" Stream Mitigation Program Memorandum of Agreement*. Signatories: Tennessee Department of Environment and Conservation, U.S. Army Corps of Engineers Memphis District, U.S. Army Corps of Engineers Nashville District, Tennessee Valley Authority, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Tennessee Wildlife Resources Agency, and Tennessee Wildlife Resources Foundation, LLC. (August 16, 2002), p.6.

§ IV.9. Replacing Lost Aquatic Resource Functions

[1] ILF Guidance (2000), § IV.A.7.
[2] *Id*. at § IV.A.7.
[3] The inclusion of mitigation bank credits on this list assumes that collected fees are used to offset the number of acres required by the Corps for mitigation. In-lieu fee programs that purchase credits based on the fee collected (and not based on the number of acres required) risk an additional layer of administrative cost that is diverted from the direct replacement of aquatic resource functions and values.
[4] It should be noted that, in most cases, the agreements that allow funds to be used for upland preservation specify that the uplands should be adjacent to aquatic resources or should provide significant benefits to aquatic resources. This is important to note because, as is indicated in Corps Regulatory Guidance Letter 02-2, preservation or establishment of upland buffers may be necessary to ensure the viability and ecological functioning of mitigation projects.
[5] The three programs with agreements that do not explicitly state how collected funds may be used include: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).
[6] Programs with agreements specifying that funds may be used only for the direct replacement of aquatic resource functions and values, as it is defined above, include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).
[7] Programs with agreements allowing funds to be used for activities other than the direct replacement of aquatic resource functions and values, as it is defined above, include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee

Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[8] Three programs have agreements that do not explicitly state how collected funds may be used: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[9] GAO (2001), p. 10.

[10] It should be noted that, in most cases, the agreements that allow funds to be used for upland preservation specify that the uplands should be adjacent to aquatic resources or should provide significant benefits to aquatic resources. This is important to note because, as is indicated in RGL 02-2 (2002), preservation or establishment of upland buffers may be necessary to ensure the viability and ecological functioning of mitigation projects.

[11] The following programs have agreements that specifically allow the use of funds for preservation of uplands (typically only those uplands that are adjacent to aquatic resources or provide some benefit to aquatic resources): Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[12] The following programs have agreements specifically allowing the use of funds for identification of mitigation opportunities: Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999).

[13] The following programs have agreements specifically allowing the use of funds for the surface water projects: Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988).

[14] The following program's agreement specifically allows the use of funds for removal of hazardous structures and vessels from water resources: The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

[15] The following program's agreement specifically allows the use of funds for nonpoint source pollution reduction through the implementation of projects under the state's Surface Water Improvement and Management (SWIM) Program: Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996).

[16] The following programs have agreements specifically allowing the use of funds for upland restoration and/or enhancement: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); National Fish and Wildlife

Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

[17] The following program's agreement specifically allows the use of funds for research: New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988).

[18] The following programs have agreements stating that preservation is the preferred method of mitigation, or that the majority of wetland projects are anticipated to be preservation: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998).

[19] The following programs have agreements stating that priority projects will be restoration, creation, enhancement, and preservation (in that order), with upland preservation considered only if it will provide significant benefit to aquatic resources: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[20] The following programs have agreements stating that restoration, enhancement, and preservation are preferred methods of mitigation, with preservation and upland restoration/preservation considered only under specified circumstances: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000).

[21] The following program's agreement specifies that collected funds may be used for restoration only: National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996).

[22] The following program's agreement specifies that all funds will be used for restoration/enhancement of aquatic resources through invasive species removal: Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999).

[23] *Memorandum of Agreement Regarding Establishment of the Santa Margarita Arundo Control Fund In-Lieu Fee Mitigation Program*. Signatories: U.S. Army Corps of Engineers, Los Angeles District, and Mission Resource Conservation District. (February 15, 1999), p.1.

[24] *Id*. at pp. 3-4.

[25] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), p.3.

[26] The following programs have agreements that do not specify preferences for the types of projects for which funds may be utilized: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Nature

Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

§ IV.10. Method of Determining Credits

[1] ILF Guidance (2000), § IV.B.5.

[2] Programs with a methodology for determining credits include: Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[3] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004.) § 5.

[4] *Historic Ricefields Association Waccamaw and Pee Dee River Basins In-Lieu Fee Mitigation Program Implementation Instrument*. (September 12, 2000), Part I, § (c)(3).

§ IV.11. Requirements to Achieve One-to-One Replacement

[1] ILF Guidance (2000), § IV.A.7.

[2] Programs with specified mitigation ratios include: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[3] Programs that reference the national goal of no net loss include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000) – also includes a ratio of at least 1:1; Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991) – also includes a ratio of at least 1:1; Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[4] DUPAGE COUNTY, ILL., COUNTYWIDE STORMWATER AND FLOOD PLAIN ORDINANCE. § 15-135.5 (2005).

[5] LA. ADMIN. CODE tit. 43 § 724.I.4 (2004).

[6] *See id.* § 724.C. *et seq.*

[7] Interagency Mitigation Task Force (U.S. Army Corps of Engineers, Baltimore district; U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; National Marine Fisheries Service; Federal Highway Administration; Maryland Department of the Environment; Maryland Department of Natural Resources; Maryland State Highway Administration). *Maryland Compensatory Mitigation Guidance*. (1994). (Currently under revision). Appendix.

[8] *Memorandum of Agreement Regarding Establishment of the Santa Margarita Arundo Control Fund In-Lieu Fee Mitigation Program*. Signatories: U.S. Army Corps of Engineers, Los Angeles District, and Mission Resource Conservation District. (February 15, 1999), § II.B.

[9] Pennsylvania Department of Environmental Protection. *Standard Operating Procedures for the Implementation of the Pennsylvania Wetland Replacement Project.* (February 14, 2000), p. 1.

[10] OR. ADMIN. R. 141-085-0131, § 4(C) (2006).

[11] Field, Dana. 25 January 2006. Oregon Department of State Lands. Personal interview.

[12] OR. ADMIN. R. 141-085-0136(2) (2006).

[13] *Memorandum of Agreement among the Federal Aviation Administration, U.S. Army Corps of Engineers, Alaska Department of Transportation and Public Facilities, U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game Regarding Impacts to Wetland and Other Aquatic Resources, Mitigation and Airport Improvement Projects in Alaska.* (January 10, 2003), p. 7.
[14] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), § 5, p. 3.
[15] MD. REGS. CODE tit. 26, § 23.04.03(A) (2005).
[16] *Memorandum of Understanding Between The Nature Conservancy and the U.S. Army Corps of Engineers [Norfolk District].* (August 5, 1995), § 4.A.

§ IV.12. Determining Fees

[1] ILF Guidance (2000), § IV.B.5.
[2] Programs with instruments that specify how fees will be assessed include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).
[3] *Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the San Gabriel Mountains Regional Conservancy Regarding the Establishment and Operation of the San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program.* (September 2, 2004), § 6.2.
[4] Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003).
[5] Available on the web site of the Corps' Louisville district: http://www.lrl.usace.army.mil/.
[6] Programs with authorizing instruments that state that assessed fees will include the cost of land acquisition include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998).
[7] DUPAGE COUNTY, ILL., COUNTYWIDE STORMWATER AND FLOOD PLAIN ORDINANCE. § 15-136.5 (2005).
[8] FLA. STAT. ch. 373.4137(3)(c) (2006).
[9] LA. ADMIN. CODE tit. 43 § 724.I.3-6 (2004).
[10] Nontidal Wetland Compensation Fund Waiver. "Compensation fund fee structure (per acre of mitigation required)." (May 15, 1991), p. 2.

[11] Pennsylvania Department of Environmental Protection, Bureau of Water Quality Protection. Pennsylvania Wetland Replacement Project. Docket Number 363-0200-003. (February 11, 1997), p. 5.
[12] North Carolina Ecosystem Enhancement Program. "EEP Schedule of Fees." (July 1, 2005). Available at http://www.nceep.net/pages/fee.htm. Accessed May 4, 2006.
[13] The General Plan policy dated December 15, 1993, is available at http://www.saccounty.net/general-plan/docs/pdf/GP-Elements/Conservation-Element.pdf. In the PDF, search for "CO-96". Accessed June 15, 2006.
[14] *TWRF, LLC "In Lieu Fee" Stream Mitigation Program Memorandum of Agreement*. Signatories: Tennessee Department of Environment and Conservation, U.S. Army Corps of Engineers Memphis District, U.S. Army Corps of Engineers Nashville District, Tennessee Valley Authority, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Tennessee Wildlife Resources Agency, and Tennessee Wildlife Resources Foundation, LLC. (August 16, 2002), Appendix A.
[15] *Memorandum of Agreement among the Federal Aviation Administration, U.S. Army Corps of Engineers, Alaska Department of Transportation and Public Facilities, U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game Regarding Impacts to Wetland and Other Aquatic Resources, Mitigation and Airport Improvement Projects in Alaska.* (January 10, 2003), p. 7.
[16] *Memorandum of Understanding Between the Missouri Conservation Heritage Foundation and the U.S. Army Corps of Engineers, Kansas City District.* (July 30, 1999), § 2.
[17] *Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana.* Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004), § 8.
[18] OR. ADMIN. R. 141-085-0131 (3)(b) (2006).
[19] Programs for which the program sponsor is responsible for determining the price of credits include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998).
[20] Programs for which the Corps is responsible for setting credit prices include: Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).
[21] Programs for which the credit price is determined by the sponsor in coordination with the Corps or an interagency review team include: Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000).
[22] Programs with a set fee, fee schedule or formula for assessing fees include: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); North Carolina Ecosystem Enhancement Program, Stream and Wetland

In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004).

§ IV.13. Protection in Perpetuity

[1] ILF Guidance (2000), § IV.A.8.

[2] The following programs' agreements clearly require mitigation sites to be protected in perpetuity: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[3] Phillips, Ann. 13 April 2006. Tucson Audubon Society. Personal communication.

[4] Heffter, Clayton. 29 November 2005. DuPage County Stormwater Permitting Program. Personal communication.

[5] The following programs' agreements specify permanent protection mechanisms: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003) – conservation easements, deed restrictions; Historic Ricefields Association, Historic Ricefields Program, South Carolina (2000) – fee title acquisition, conservation easements; Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003) – conservation easements, deed restrictions; Maryland Department of Environment, Nontidal Wetland Compensation Fund, Maryland (1991) – conservation easements, deed restrictions; Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004) – conservation easements, deed restrictions; National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000) – fee title acquisition, conservation easements; New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988) – conservation restrictions; North Carolina Ecosystem Enhancement Program, North Carolina Ecosystem Enhancement Program, North Carolina (1998) – conservation easements; North Carolina Ecosystem Enhancement Program, North Carolina Ecosystem Enhancement Program, North Carolina (1998) – fee simple acquisition, conservation easements; Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999) – conservation easements, deed restrictions; Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993) – conservation easements, deed restrictions, long-term management agreements with land trusts, public ownership; San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004) – conservation easements, deed restrictions; Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002) – fee title acquisition, conservation easements, deed restrictions; The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004)) – fee title acquisition, conservation easements, deed restrictions; The Wilderness Center, Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, Ohio (2004) – fee title acquisition.

[6] The following programs' agreements include a permanent protection requirement, but *do not* specify permanent protection mechanisms: Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[7] The following programs' agreements do not specify that mitigation sites must be protected in perpetuity: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[8] The following programs' agreements do not specify that mitigation sites must be protected in perpetuity, but are sponsored by a state or local agency: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000).

[9] The following programs' agreements do not specify that mitigation sites must be protected in perpetuity, but are sponsored by a land trust: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (1998); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).

[10] The following programs' agreements do not specify that mitigation sites must be protected in perpetuity, but are sponsored by a non-profit organization: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[11] *Agreement Between the Southeast Alaska Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act.* (September 23, 1998), p. 2. Emphasis added.

§ IV.14. Remedial Action Provisions and Contingency Funds

[1] ILF Guidance (2000), § IV.A.2.

[2] *Id*. at § IV.B.9.

[3] The twelve agreements that clearly assign responsibility for compensatory mitigation success or for remedial actions to the program sponsor include: *Agreement Between the Environmental Resource Management Center of Northern Kentucky University, the Northern Kentucky University Foundation, and the Louisville District of the U.S. Army Corps of Engineers.* (March 6, 2001), p. 4; *Agreement Concerning In-Lieu Mitigation Fees Between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers.* (October 18, 2002), § VI(B); *Agreement for Establishment and Administration of the Calleguas Creek Watershed (Ventura County, California) Aquatic Resource In-Lieu Fee*

Compensatory Mitigation Program Between the U.S. Army Corps of Engineers, Los Angeles District and the California Coastal Conservancy. (March 17, 2003), p. 4; *Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana.* Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004), § 4(h); *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), § 3(D); *Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the San Gabriel Mountains Regional Conservancy Regarding the Establishment and Operation of the San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program.* (September 2, 2004), § 5.6; *Memorandum of Agreement Regarding Establishment of the Santa Margarita Arundo Control Fund In-Lieu Fee Mitigation Program*. Signatories: U.S. Army Corps of Engineers, Los Angeles District, and Mission Resource Conservation District. (February 15, 1999), § 5.6; *Memorandum of Understanding Between the Missouri Conservation Heritage Foundation and the U.S. Army Corps of Engineers, St. Louis District.* (October 5, 2000), § 4; *Memorandum of Understanding Between The Nature Conservancy and the U.S. Army Corps of Engineers [Norfolk District].* (August 5, 1995), § 3(C); OR. ADMIN. R. 141-085-0161 (2006); Pennsylvania Department of Environmental Protection. *Standard Operating Prodecures for the Implementation of the Pennsylvania Wetland Replacement Project.* (February 14, 2000), p. 5; *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004).

[4] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), § 8.

[5] *Id*. at § 9.

[6] Agreements containing contingency plans include: Interagency Mitigation Task Force (U.S. Army Corps of Engineers, Baltimore district; U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; National Marine Fisheries Service; Federal Highway Administration; Maryland Department of the Environment; Maryland Department of Natural Resources; Maryland State Highway Administration). *Maryland Compensatory Mitigation Guidance*. (1994). (Currently under revision), ch. III, § IV; *Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District.* (July 22, 2003), § V; *Memorandum of Understanding Between the North Carolina Department of Environment and Natural Resources and the U.S. Army Corps of Engineers, Wilmington District.* (November 4, 1998), § IV(E).

[7] Agreements that require contingency measures in site-specific mitigation plans include: *Agreement Between the Nature Conservancy and the U.S. Army Corps of Engineers, Fort Worth District to Establish an In-Lieu Fee Program in the Fort Worth District.* (November 19, 1998), § 2(g); *Agreement for Establishment and Administration of the Ventura River Watershed In-Lieu Fee Mitigation Program Between the U.S. Army Corps of Engineers and the Ojai Valley Land Conservancy.* (August 26, 1999), p. 3; *Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana.* Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004), p. 6.

[8] The agreement that requires the in-lieu fee sponsor to coordinate a contingency plan with a Mitigation Bank Review Team in the event of project failure is: *Historic Ricefields Association Waccamaw and Pee Dee River Basins In-Lieu Fee Mitigation Program Implementation Instrument.* (September 12, 2000), p. 3.

[9] Programs with agreements that require the sponsor to secure financial assurances for remedial measures include: Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[10] LA. ADMIN. CODE tit. 43 § 724.I.10 (2004).

[11] Interagency Mitigation Task Force (U.S. Army Corps of Engineers, Baltimore district; U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; National Marine Fisheries Service; Federal Highway Administration; Maryland Department of the Environment; Maryland Department of Natural Resources; Maryland State Highway Administration). *Maryland Compensatory Mitigation Guidance*. (1994). (Currently under revision), Ch. 3 § 3(E).

[12] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), § 9.
[13] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), § 3(D)(2).
[14] *Memorandum of Understanding Between The Nature Conservancy and the U.S. Army Corps of Engineers [Norfolk District].* (August 5, 1995), § 3(D).
[15] *Id*. at § 6.
[16] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), p. 4.

§ IV.15. Long-Term Management and Maintenance Provisions

[1] ILF Guidance (2000), § IV.B.10.
[2] Programs with agreements that include mention of long-term management and maintenance: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).
[3] Exceptions to this statement include, for some agreements, required monitoring/reporting periods, assignment of monitoring and maintenance duties, and/or instruction to obtain the necessary expertise to develop and implement monitoring and maintenance plans.
[4] Programs with agreements that list specific long-term management and maintenance actions (aside from required monitoring/reporting periods, assignment of monitoring and maintenance duties, and/or instruction to obtain the necessary expertise to develop and implement monitoring and maintenance plans) include: Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).
[5] Programs with agreements that require provisions to be outlined in separate mitigation project plans include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); North Carolina Ecosystem Enhancement Program, Stream and Wetland

In-Lieu Fee Program for NCDOT, North Carolina (2003); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[6] Programs with agreements that include long-term management and maintenance as a general requirement only include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[7] Programs with agreements that do not include any language on long-term management and maintenance include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

[8] Programs with agreements that assign long-term management and maintenance responsibilities to a specific entity include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003) – responsibilities assigned to California Coastal Conservancy, or a qualified organization designated by the Conservancy and approved by the Corps; Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1998) – responsibilities assigned to Water Management Districts; Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999) – responsibilities assigned to Mission Resource Conservation District; National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000) – responsibilities assigned to National Audubon Society; New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988) – responsibilities assigned to a charitable conservancy or appropriate agency, as designated by New Jersey Department of Environmental Protection; North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998) – responsibilities assigned to North Carolina Department of Environment and Natural Resources; North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003) – responsibilities assigned to North Carolina Department of Environment and Natural Resources; Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999) – responsibilities assigned to Ojai Valley Land Conservancy; Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993) – responsibilities assigned to Oregon Department of State Lands, or another person or governmental agency designated by the ODSL; San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004) – responsibilities assigned to San Gabriel Mountains Regional Conservancy, or a qualified organization designated by the Conservancy and approved by the Corps; The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004) – responsibilities assigned to a board composed of signatories to the agreement (Federal Aviation Administration, U.S. Army Corps of Engineers, Alaska Department of Transportation and Public Facilities, U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game); The Nature Conservancy, Virginia Aquatic Resources

Trust Fund, Virginia (1995) – responsibilities assigned to The Nature Conservancy ; The Wilderness Center, Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, Ohio (2004) – responsibilities assigned to The Wilderness Center.

[9] OR. ADMIN. R. 141-085-0161 (2006).

[10] Programs with agreements specifying that collected funds may be used for long-term management and maintenance duties include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[11] Programs with agreements that authorize the creation of an account to be used for long-term management and maintenance include: National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).

[12] *Beidler Forest In-Lieu Fee Mitigation Program Implementation Instrument*. Signatories: National Audubon Society, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, Natural Resources Conservation Service, South Carolina Department of Health and Environmental Control, South Carolina Department of Natural Resources, South Carolina Historic Preservation Office, and National Marine Fisheries Service. (September 12, 2000), p. 11.

[13] *Agreement Between the Nature Conservancy and the U.S. Army Corps of Engineers, Fort Worth District to Establish an In-Lieu Fee Program in the Fort Worth District.* (November 19, 1998), § 6.b.

§ IV.16. Administrative Reporting

[1] ILF Guidance (2000), § IV.A.8.

[2] Programs with agreements that contain administrative requirements for program sponsors include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration

Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[3] Programs with agreements that require annual monitoring reports include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[4] *Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the San Gabriel Mountains Regional Conservancy Regarding the Establishment and Operation of the San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program.* (September 2, 2004), § 6.5.

[5] *Id*. at §§ 7.3.4--5.

[6] *Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District.* (July 22, 2003), § VII.B.

[7] *Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana.* Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004), § 3(g).

[8] *Memorandum of Understanding Between The Nature Conservancy and the U.S. Army Corps of Engineers [Norfolk District].* (August 5, 1995), § 6.

[9] Programs with agreements that do not include administrative requirements are: Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1998); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).

§ IV.17. Monitoring Requirements

[1] Programs with some sort of monitoring requirements include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1995); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[2] *Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and Mountains Restoration Trust Concerning the Establishment and Operation of the Mountains Restoration Trust In-Lieu Fee Program.* (September 2, 2004), § 5.6.

[3] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), § 9.

[4] Programs with agreements that do not reference monitoring requirements include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

§ IV.18. Performance Standards

[1] ILF Guidance (2000), § IV.B.7.

[2] Programs with agreements that outline performance standards include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[3] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), Appendix H.

[4] Programs with agreements that require performance standards to be spelled out in plans for specific mitigation projects include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[5] *Agreement Between the Environmental Resource Management Center of Northern Kentucky University, the Northern Kentucky University Foundation, and the Louisville District of the U.S. Army Corps of Engineers.* (March 6, 2001), p. 3.

[6] Programs reporting that performance standards are described somewhere other than the ILF agreement or mitigation site plan include: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998) – described case-by-case at semi-annual meetings; National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000) – described in permits; North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998) – described in Corps standards; North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003) – described in Corps standards; Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000) – described in permits; Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004) – described in project proposals.

[7] GAO (2001), p. 4.

§ IV.19. Managing Program Data

[1] The following programs maintain a database containing information on the operation of their fund: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of

the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[2] The following programs update their databases regularly: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust

Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[3] The following programs update their databases at least annually: Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000).

[4] The following programs provided a copy of their database for this report: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[5] The following programs reported that they track the total amount of aquatic resource impacts that are being offset by the program: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project,

Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[6] The following programs track aquatic resource impacts in each of the following ways:
Acres of wetlands: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).
Linear feet of streams: Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002).
Linear feet of streams and acres of wetlands: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995). *Acres of stream impacts*: Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999).

[7] The following programs reported that they track the total amount of aquatic resource mitigation achieved through the program: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[8] The following programs track aquatic resource mitigation in each of the following ways:

Acres of wetlands: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).
Linear feet of streams: Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002).
Linear feet of streams and acres of wetlands: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).
Acres of stream impacts: Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999).

§ IV.20. Completing Mitigation in a Timely Manner

[1] As noted in: Proposed Compensatory Mitigation Rule (2006), p. 15,530; Banking Guidance (1995), § II.F.1.
[2] ILF Guidance (2000), § IV.A.7.
[3] *Id*. at § IV.B.6.
[4] GAO (2001), p. 10.
[5] ILF Guidance (2000), § IV.A.2.
[6] The 18 programs with agreements that define a timetable in which compensatory mitigation should be completed are: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[7] It should be noted that two programs, the Tennessee Stream Mitigation Program and the Kentucky DFWR In-Lieu Fee Program for Stream and Wetland Mitigation, do not specify a timetable for the completion of in-lieu fee mitigation projects, but rather a timetable for the *initiation* of projects. *See: Agreement Concerning In-Lieu Mitigation Fees Between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers.* (October 18, 2002), p. 4.; *TWRF, LLC "In Lieu Fee" Stream Mitigation Program Memorandum of Agreement*. Signatories: Tennessee Department of Environment and Conservation, U.S. Army Corps of Engineers Memphis District, U.S. Army Corps of Engineers Nashville District, Tennessee Valley Authority, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Tennessee Wildlife Resources Agency, and Tennessee Wildlife Resources Foundation, LLC. (August 16, 2002), p. 7.

[8] Programs with agreements that include language similar to the 2000 Guidance are: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[9] ILF Guidance (2000), § IV.A.7.

[10] The following programs have a programmatic goal of completing mitigation in advance of impacts: North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998).

[11] *Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana.* Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004), p. 7.

[12] Programs with agreements that include defined timetables with timelines of two years are: Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993).

[13] Programs with agreements that contain defined timetables with timelines of three years are: Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[14] One program's agreement contains a timetable of ten years: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000).

[15] Programs with agreements that include language allowing for flexibility in established timetables are: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[16] *Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), § 4.

[17] *Historic Ricefields Association Waccamaw and Pee Dee River Basins In-Lieu Fee Mitigation Program Implementation Instrument.* (September 12, 2000), Part I, pp. 3-5.

[18] The following programs have agreements instructing programs to wait to allocate funds until the sponsor has collected adequate funds to conduct environmentally meaningful projects: Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heri-

tage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

[19] *Agreement Between the Great Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act.* (July 16, 1998), p. 2.

[20] *Memorandum of Understanding Between The Nature Conservancy and the U.S. Army Corps of Engineers [Norfolk District].* (August 5, 1995), § 4(B).

[21] FLA. STAT. ch. 373.4137(3)(c) (2006).

[22] Boan, Joshua. 20 Sept. 2005. Florida Department of Transportation. Personal communication.

[23] It should be noted that the Stream and Wetland In-Lieu Fee Program agreement (1998) allows mitigation to be conducted up to 1 year after the collection of funds. The Stream and Wetland In-Lieu Fee Program for the NCDOT agreement (2003) provides for advance mitigation only. *See: Memorandum of Understanding Between the North Carolina Department of Environment and Natural Resources and the U.S. Army Corps of Engineers, Wilmington District.* (November 4, 1998), § IV.H; *Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District.* (July 22, 2003), § 6.B.

[24] Thirty percent of the program's total anticipated wetland mitigation credits (and additional credits as approved by the Corps on a case-by-case basis) may be sold prior to mitigation; however, wetland mitigation project implementation must be complete within one full growing season from the date of the sale of the first credit. The remaining anticipated wetland mitigation credits (70 percent) may be sold only after mitigation is underway—once vegetation has been established at a mitigation site "to the satisfaction of the [Corps]." One hundred percent of anticipated credits for mitigation in the form of preservation may be sold in advance. *See: Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement*. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004), § 4.

[25] The following program reported that mitigation projects are typically completed less than one year after receiving funds: Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[26] The following programs reported that mitigation projects are typically completed 1-2 years after receiving funds: Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

[27] The following programs reported that mitigation projects are typically completed 2-3 years after receiving funds: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).

[28] The following programs reported that mitigation projects are typically completed 3 or more years after receiving funds: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999).

[29] Programs that provided documentation to support their estimates include: California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

§ IV.21. Program Termination

[1] Programs with agreements that outline termination provisions requiring program sponsors to complete mitigation obligations and return unused funds are: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[2] *Agreement for Establishment and Administration of the Ventura River Watershed In-Lieu Fee Mitigation Program Between the U.S. Army Corps of Engineers and the Ojai Valley Land Conservancy.* (August 26, 1999), p. 4.

[3] The following programs have agreements that require program sponsors to complete all mitigation for which funds have been collected: Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004).

[4] The following programs have agreements that require the program sponsor to return unused ILF funds: National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996).

[5] The following programs have agreements that do not contain any termination provisions: DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000); Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

§ IV.22. In-Lieu Fee Successes and Shortcomings

[1] Broscheid, Bob. 19 September 2005. Arizona Fish and Game Department. Personal communication.

[2] Mangione, Lisa and John Markham. 21 July 2005. Los Angeles district, U.S. Army Corps of Engineers. Personal communication.
[3] Edelman, Paul. 20 October 2005. Santa Monica Mountains Conservancy. Personal communication; and Chris Trumpy. 20 October 2005. Mountains Recreation & Conservation Authority. Personal communication.
[4] DeBerry, Jeffrey. 7 October 2005. The Nature Conservancy. Personal communication.
[5] Beston, George. 5 August 2005. Maryland Department of the Environment. Personal communication.
[6] Holcombe, Jim. August 2005. Louisiana Department of Natural Resources. Personal communication; Lisa Mangione and John Markham. 21 July 2005. Los Angeles district, U.S. Army Corps of Engineers. Personal communication.
[7] Herron, John. 5 December 2005. The Nature Conservancy of Texas. Personal communication.
[8] Allen, Aaron. 10 April 2006. Los Angeles district, U.S. Army Corps of Engineers. Personal communication.

§ IV. Box 4: In-Lieu Fee in North Carolina
[1] N.C. GEN. STAT. § 143-214.9 (2005).

§ V. Conclusions
[1] 33 U.S.C. § 1251(a) (2005).
[2] Mitigation MOA (1990), § II.B.
[3] *Id*. at § II.C.
[4] NRC (2001), p. 9.
[5] Proposed Compensatory Mitigation Rule (2006), p. 15,521.
[6] *Id*. at p. 15,521.

§ V.1. In in-lieu fee mitigation able to support ecological goals?
[1] For additional information on recent studies of the effectiveness of compensatory mitigation, see the National Mitigation Action Plan web site (http://www.mitigationactionplan.gov/recentevals.html).
[2] GAO (2001), p. 15.
[3] *Id*. at p. 3.
[4] NRC (2001), p. 9.
[5] GAO (2005), p. 19.
[6] GAO found that "For the 6 in-lieu-fee arrangements that were required to submit monitoring reports to the Corps, 5 had submitted at least one report. In addition, the Corps had conducted a compliance inspection for 5 of the 12 arrangements." *See:* GAO (2005), p. 5.

§ V.2. What are the benefits of in-lieu fee as a mitigation option?
[1] NRC (2001), p. 4.
[2] *See* RGL 02-2 (2002); Proposed Mitigation Rule (2006).
[3] NRC (2001), pp. 4-5.
[4] Proposed Compensatory Mitigation Rule (2006), p. 15,526.
[5] *Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and Arizona Game and Fish Commission Concerning the Establishment and Operation of the AGFD Mitigation Trust Account*. (July 21, 2004).
[6] Programs that reported that the Corps helps to identify projects include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).
[7] Proposed Compensatory Mitigation Rule (2006), p. 15,530.
[8] The Conservation Fund. *A Proposal to Establish and Administer the Alaska Wetlands Conservation Fund*. (July 2004), p. 3.
[9] NRC (2001), p. 163.

[10] *Memorandum of Understanding Between the Missouri Conservation Heritage Foundation and the U.S. Army Corps of Engineers, Kansas City District.* (July 30, 1999), § 2; *Memorandum of Understanding Between the Missouri Conservation Heritage Foundation and the U.S. Army Corps of Engineers, St. Louis District.* (October 5, 2000), § 2.
[11] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), § 1.
[12] GAO (2005), p. 5.
[13] *Id*. at p. 5.
[14] *Id*. at p. 19-20.

§ V.3. What are the risks or shortcomings of in-lieu fee mitigation?

[1] Banking Guidance (1995), § II.F.1. Emphasis added.
[2] *Id*. at § II.D.6. Mitigation banks sell, on average, 42 percent of their credits prior to achieving any performance criteria. *See also:* Banks and Fees (2002).
[3] 2005 Status Report, ELI (2006).
[4] ILF Guidance (2000), § IV.B.6.
[5] *Id*. at § IV.A.2.
[6] Programs that accept funds from sources other than permittees include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, USACE South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).
[7] Programs that may accept funds generated by the resolution of enforcement and compliance action initiated by the Corps include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998); California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003); Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); Maryland Department of Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000); Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999); Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993); San Gabriel Mountains Regional

Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

[8] Programs that may accept "other funds" include: Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004); Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004); Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004); National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (California, Arizona, Colorado, New Mexico, Nevada, Texas, Utah) (2000); San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004); Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003); Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000); Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991); Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004); The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

§ V.4. Have the particular risks or shortcomings of in-lieu fee mitigation been adequately addressed?

[1] ILF Guidance (2000), § IV.B.6.

[2] *Id*. at § IV.A.7.

[3] Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999), § 9.

[4] Ross, Gerald. 10 November 2005. Missouri Conservation Heritage Foundation. Personal communication.

[5] ILF Guidance (2000), § IV.A.2.

[6] *Id*. at § IV.B.2.

[7] *Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana.* Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004), § 8.

[8] *Elizabeth River Restoration Trust Operating Agreement.* Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004), § 2.

[9] *Id*. at § 1(A).

[10] All four Alaska programs and both South Carolina programs reviewed in ELI's study are included in this statement. The eight programs with agreements that state that preservation is the preferred method of mitigation, or that the majority of wetland projects are anticipated to be preservation include: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000); Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999); National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998).

[11] Six programs reported that mitigation is achieved through 100 percent preservation: Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997); Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998); Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998); The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004); The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998); The Wilderness Center, Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, Ohio (2004).

[12] One program reported that mitigation is achieved through 75-99 percent preservation: Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999).

[13] Five programs reported that mitigation is achieved through 50-74 percent preservation: National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000); New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

§ V. Table 8. Comparison of Recommended Standards to In-Lieu Fee Programs Reviewed

[1] Banking Guidance (1995), § II.F.1.

[2] Programs that provide mitigation in advance of impacts include: North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998); North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003); The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

[3] ILF Guidance (2000), §§ IV.A.2; IV.B.2.

[4] *Id*. at § IV.A.2.

[5] *Id*. at § IV.A.3.

[6] NRC (2001), p. 9.

[7] 10 of 38 commit to conducting an assessment of watershed needs; one program assessed sites in advance (National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000)); two programs reference a watershed plan (The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004); The Wilderness Center, Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative, Ohio (2004)).

[8] ILF Guidance (2000), § IV.A.4.

[9] Nineteen of the 38 in-lieu fee programs analyzed assess the ecological suitability of sites through *at least one* of the following means. Several programs fit into more than one of the following categories: agreement indicates that the sponsor will embark on an assessment of watershed needs to identify sites (10); program assessed sites in advance or agreement references a watershed plan (3); agreement indicates that the sponsor will establish a site selection committee or coordinate with a diverse group of partners to support site prioritization and selection (12); agreement references the establishment of mitigation review team or relies upon already established mitigation review team for the review and approval of the program and mitigation sites (4).

[10] ILF Guidance (2000), § IV.A.6.

[11] Although over 50 percent of the programs meet this standard, the threshold should be higher to address the "exceptional circumstances" aspect of the standard.

[12] ILF Guidance (2000), § IV.A.7; *see also* GAO (2001), p. 10.

[13] ILF Guidance (2000), § IV.A.7. In its 2001 study, GAO found that "[w]hile Corps officials in 11 of the 17 districts with the in-lieu fee option told us that the number of wetland acres restored, enhanced, created, or preserved by in-lieu fee organizations equaled or exceeded the number of wetland acres adversely affected, data submitted by over half of those districts did not support these claims." (GAO (2001), p. 3.)

[14] Eight in-lieu-fee agreements outline mitigation ratios of at least 1:1 and 8 programs reference the national goal of achieving no net loss of wetlands (indicating a commitment to meeting a minimum 1:1 replacement ratio), including two of which also have ratios of at least 1:1.

[15] NRC (2001), p. 9.

[16] ILF Guidance (2000), § IV.B.6.

[17] *Id*. at § IV.A.7.

[18] *Id*. at § IV.A.8.

[19] *Id*. at § IV.A.8.

[20] *Id*. at § IV.A.8; IV.B.8.

[21] *Id*. at § IV.B.8.

[22] Additional programs may require the specific parameters to be detailed in the site-specific plan.

[23] ILF Guidance (2000), § IV.B.3.

[24] *Id*. at § IV.B.5.

[25] *Id*. at § IV.B.5.

[26] ILF Guidance (2000), § IV.B.7; *also* NRC (2001), p. 87. The NRC report states that in-lieu fee programs should provide "assured compensation for all permitted activities" (NRC (2001), p. 9). GAO has also pointed out that "while officials…said that the ecological functions…lost from the adversely affected wetlands were replaced at the same level or better…they had not tried to assess whether mitigation efforts have been ecologically successful." (GAO (2001), p. 3-4.)

[27] Six programs describe performance standards somewhere other than the agreement or individual project plan, such as project proposal or permit.
[28] ILF Guidance (2000), § IV.A.2.
[29] *Id*. at § IV.B.9.
[30] *Id*. at § IV.B.10.
[31] NRC (2001), p. 9.
[32] Sixteen programs do not include any language on long-term management and maintenance.
[33] Nine programs mention long-term management and maintenance as a general requirement but do not give further specification.
[34] ILF Guidance (2000), § IV.B.10.
[35] GAO recommended that in-lieu fee agreements should outline the accounting procedures for tracking payments received from permittees (GAO (2005), p.11). ELI did not assess whether this was required in authorizing agreements, but rather determined through interviews whether or not program sponsors were maintaining and regularly updating this information.
[36] Thirty-five programs are required by their authorizing agreements or report that they maintain a database that, generally, tracks payments received.

APPENDIX A: BIBLIOGRAPHY

This bibliography lists the 38 in-lieu fee programs covered by this study, the authorizing instruments that establish the structure of these programs and guide their administration, and additional policy studies and guidance documents referenced throughout this report. This bibliography is separated into three parts: 1) In-Lieu Fee Programs, 2) Authorizing Instruments, and 3) Guidance Documents and Policy Studies. In the In-Lieu Fee Programs section, the date listed is the year the program was first authorized. In the Authorizing Instruments and Guidance Documents sections, the date listed is the date that the document became effective or was published.

1) IN-LIEU FEE PROGRAMS

Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004).

Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998).

California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003).

DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000).

Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996).

Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997).

Great Land Trust, Great Land Trust In-Lieu Fee Program, Alaska (1998).

Historic Ricefields Association, Historic Ricefields Association In-Lieu Fee Mitigation Program, South Carolina (2000).

Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999).

Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003).

Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995).

Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000).

Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991).

Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999).

Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999).

Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004).

Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004).

National Audubon Society, Beidler Forest In-Lieu-Fee Mitigation Program, South Carolina (2000).

National Fish and Wildlife Foundation, Pennsylvania Wetlands Replacement Project, Pennsylvania (1996).

National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000).

New Jersey Wetland Mitigation Council, Land Use Regulation Program, New Jersey (1988).

North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program, North Carolina (1998).

North Carolina Ecosystem Enhancement Program, Stream and Wetland In-Lieu Fee Program for NCDOT, North Carolina (2003).

Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999).

Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999).

Oregon Department of State Lands, In-Lieu Fee Mitigation Program, Oregon (1993).

Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).

San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004).

Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000).

Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998).

Tennessee Wildlife Resources Foundation, Tennessee Stream Mitigation Program, Tennessee (2002).

The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004).

The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998).

The Elizabeth River Project, Elizabeth River Restoration Trust, Virginia (2004).

The Nature Conservancy, The Nature Conservancy In-Lieu-Fee Program, Texas (1998).

The Nature Conservancy, Virginia Aquatic Resources Trust Fund, Virginia (1995).

The Wilderness Center, Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative, Ohio (2004).

Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

2) AUTHORIZING INSTRUMENTS

Agreement Between Kachemak Heritage Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act. (March 3, 1999).

Agreement Between the Conservation Fund and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act. (May 20, 1998).

Agreement Between the Environmental Resource Management Center of Northern Kentucky University, the Northern Kentucky University Foundation, and the Louisville District of the U.S. Army Corps of Engineers. (March 6, 2001).

Agreement Between the Georgia Land Trust Service Center and the U.S. Army Corps of Engineers, Savannah District. (July 3, 1997).

Agreement Between the Great Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act. (July 16, 1998).

Agreement Between the Nature Conservancy and the U.S. Army Corps of Engineers, Fort Worth District to Establish an In-Lieu Fee Program in the Fort Worth District. (November 19, 1998).

Agreement Between the Southeast Alaska Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act. (September 23, 1998).

Agreement Concerning In-Lieu Mitigation Fees Between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers. (October 18, 2002).

Agreement for Establishment and Administration of the Calleguas Creek Watershed (Ventura County, California) Aquatic Resource In-Lieu Fee Compensatory Mitigation Program Between the U.S. Army Corps of Engineers, Los Angeles District and the California Coastal Conservancy. (March 17, 2003).

Agreement for Establishment and Administration of the Los Angeles County Aquatic Resource In-Lieu Fee Mitigation Program Between the U.S. Army Corps of Engineers, Los Angeles District and the Santa Monica Mountains Conservancy. (May 22, 2000).

Agreement for Establishment and Administration of the Ventura River Watershed In-Lieu Fee Mitigation Program Between the U.S. Army Corps of Engineers and the Ojai Valley Land Conservancy. (August 26, 1999).

Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana. Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004).

Amendment 1 to the Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District. (June 19, 2004).

Amendment to the Memorandum of Understanding Between The Nature Conservancy and the U.S. Army Corps of Engineers [Norfolk District]. (December 18, 2003).

Beidler Forest In-Lieu Fee Mitigation Program Implementation Instrument. Signatories: National Audubon Society, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, Natural Resources Conservation Service, South Carolina Department of Health and Environmental Control, South Carolina Department of Natural Resources, South Carolina Historic Preservation Office, and National Marine Fisheries Service. (September 12, 2000).

County of Sacramento, Cal., Sacramento General Plan Conservation Element § CO-96 (Dec. 15, 1993).

DUPAGE COUNTY, ILL., COUNTYWIDE STORMWATER AND FLOOD PLAIN ORDINANCE. §§ 15-134—15-136 (2005).

Elizabeth River Restoration Trust Operating Agreement. Signatories: The Elizabeth River Project, Virginia Department of Environmental Quality, and U.S. Army Corps of Engineers Norfolk District. (May 19, 2004).

FLA. STAT. ch. 373.4135 (2006).

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Historic Ricefields Association Waccamaw and Pee Dee River Basins In-Lieu Fee Mitigation Program Implementation Instrument. (September 12, 2000).

Interagency Mitigation Task Force (U.S. Army Corps of Engineers, Baltimore district; U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; National Marine Fisheries Service; Federal Highway Administration; Maryland Department of the Environment; Maryland Department of Natural Resources; Maryland State Highway Administration). *Maryland Compensatory Mitigation Guidance*. 1994. (Currently under revision).

Interlocal Cooperation Agreement by and between the Louisville District U.S. Army Corps of Engineers and the Louisville and Jefferson County Metropolitan Sewer District. (July 7, 2000).

KY. REV. STAT. ANN. § 150.255 (West 2005).

LA. ADMIN. CODE tit. 43 § 724 (2004).

LA. REV. STAT. ANN. § 214.41 (West 2004).

Letter of Agreement Between the U.S. Army Corps of Engineers South Pacific Division & The National Fish and Wildlife Foundation Concerning the Establishment and Operation of The South Pacific Wetlands Conservation Account. (November 20, 2000).

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Memorandum of Agreement among the Federal Aviation Administration, U.S. Army Corps of Engineers, Alaska Department of Transportation and Public Facilities, U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game Regarding Impacts to Wetland and Other Aquatic Resources, Mitigation and Airport Improvement Projects in Alaska. (January 10, 2003).

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Memorandum of Agreement Between the North Carolina Department of Environment and Natural Resources and the North Carolina Department of Transportation. (April 12, 2004).

Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and Arizona Game and Fish Commission Concerning the Establishment and Operation of the AGFD Mitigation Trust Account. (July 21, 2004).

Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the Tucson Audubon Society Concerning the Establishment and Operation of TAS Conservation Account. (February 10, 2004).

Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and Mountains Restoration Trust Concerning the Establishment and Operation of the Mountains Restoration Trust In-Lieu Fee Program. (September 2, 2004).

Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the San Gabriel Mountains Regional Conservancy Regarding the Establishment and Operation of the San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program. (September 2, 2004).

Memorandum of Agreement Regarding Establishment of the Santa Margarita Arundo Control Fund In-Lieu Fee Mitigation Program. Signatories: U.S. Army Corps of Engineers, Los Angeles District, and Mission Resource Conservation District. (February 15, 1999).

Memorandum of Understanding Between National Fish and Wildlife Foundation and Pennsylvania Department of Environmental Protection Concerning the Pennsylvania Wetlands Replacement Project. (January 1, 2002).

Memorandum of Understanding Between the Florida Audubon Society and the U.S. Army Corps of Engineers. (May 26, 1998).

Memorandum of Understanding Between the Missouri Conservation Heritage Foundation and the U.S. Army Corps of Engineers, Kansas City District. (July 30, 1999).

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Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative Agreement. Signatories: The Wilderness Center, the Huntington District of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Ohio Environmental Protection Agency, and the Ohio Department of Natural Resources. (February 1, 2004).

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The Wilderness Center. *Prospectus for the Sugar Creek Wetland/Watershed In Lieu Fee Mitigation Initiative.* (February 1, 2004).

TWRF, LLC "In Lieu Fee" Stream Mitigation Program Memorandum of Agreement. Signatories: Tennessee Department of Environment and Conservation, U.S. Army Corps of Engineers Memphis District, U.S. Army Corps of Engineers Nashville District, Tennessee Valley Authority, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Tennessee Wildlife Resources Agency, and Tennessee Wildlife Resources Foundation, LLC. (August 16, 2002).

3) GUIDANCE DOCUMENTS AND POLICY STUDIES

Compensatory Mitigation for Losses of Aquatic Resources, 71 Fed. Reg. 15,520 (2006) (to be codified at 33 C.F.R. pt. 325 and 332, and 40 C.F.R. pt. 230) (proposed Mar. 28, 2006).

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U.S. Government Accountability Office. *Wetlands Protection: Corps of Engineers Does Not Have an Effective Oversight Approach to Ensure That Compensatory Mitigation Is Occurring*. Washington, DC: GAO. GAO-05-898. (September 2005).

Wilkinson, Jessica and Jared Thompson. *2005 Status Report on Compensatory Mitigation in the United States*. Washington, D.C.: Environmental Law Institute. (2006).

APPENDIX B. IN-LIEU FEE PROGRAMS AND AUTHORIZING INSTRUMENTS BY STATE

This appendix lists the authorizing instruments for the 38 in-lieu fee programs covered by this study. The programs are alphabetized by state.[a] The date listed for each program is the year the program was first authorized. The date listed for each authorizing instrument is the date the document became effective.

ALASKA

The Conservation Fund, Alaska Wetlands Conservation Fund, Alaska (2004).

The Conservation Fund. *A Proposal to Establish and Administer the Alaska Wetlands Conservation Fund*. (July 2004).

Memorandum of Agreement among the Federal Aviation Administration, U.S. Army Corps of Engineers, Alaska Department of Transportation and Public Facilities, U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game Regarding Impacts to Wetland and Other Aquatic Resources, Mitigation and Airport Improvement Projects in Alaska. (January 10, 2003).

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The Conservation Fund, The Conservation Fund In-Lieu Fee Program, Alaska (1998).

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Kachemak Heritage Land Trust, Kachemak Heritage Land Trust In-Lieu Fee Program, Alaska (1999).

Agreement Between Kachemak Heritage Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act. (March 3, 1999).

Southeast Alaska Land Trust, Southeast Alaska Land Trust In-Lieu Fee Program, Alaska (1998).

Agreement Between the Southeast Alaska Land Trust and the Regulatory Branch, U.S. Army Corps of Engineers, Alaska District to Establish a Fee-Based Compensatory Mitigation Program Under Section 404 of the Clean Water Act. (September 23, 1998).

ARIZONA

Arizona Game and Fish Department, Arizona Game and Fish Department Mitigation Trust Account, Arizona (2004).

Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and Arizona Game and Fish Commission Concerning the Establishment and Operation of the AGFD Mitigation Trust Account. (July 21, 2004).

Tucson Audubon Society, Tucson Audubon Society Conservation Account, Arizona (2004).

Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the Tucson Audubon Society Concerning the Establishment and Operation of TAS Conservation Account. (February 10, 2004).

[a] Note: One program that is active throughout the U.S. Army Corps of Engineers South Pacific Division is listed with the programs in California because the divisional headquarters are in California.

CALIFORNIA

California Coastal Conservancy, Calleguas Creek Watershed Aquatic Resource In-Lieu Fee Compensatory Mitigation Program, California (2003).

Agreement for Establishment and Administration of the Calleguas Creek Watershed (Ventura County, California) Aquatic Resource In-Lieu Fee Compensatory Mitigation Program Between the U.S. Army Corps of Engineers, Los Angeles District and the California Coastal Conservancy. (March 17, 2003).

Mission Resource Conservation District, Santa Margarita Arundo Control Fund, California (1999).

Memorandum of Agreement Regarding Establishment of the Santa Margarita Arundo Control Fund In-Lieu Fee Mitigation Program. Signatories: U.S. Army Corps of Engineers, Los Angeles District, and Mission Resource Conservation District. (February 15, 1999).

Mountains Restoration Trust, Mountains Restoration Trust In-Lieu-Fee Program, California (2004).

Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and Mountains Restoration Trust Concerning the Establishment and Operation of the Mountains Restoration Trust In-Lieu Fee Program. (September 2, 2004).

National Fish and Wildlife Foundation, South Pacific Wetlands Conservation Account, U.S. Army Corps of Engineers South Pacific Division (Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Texas, Utah, Wyoming) (2000).

Letter of Agreement Between the U.S. Army Corps of Engineers South Pacific Division & The National Fish and Wildlife Foundation Concerning the Establishment and Operation of The South Pacific Wetlands Conservation Account. (November 20, 2000).

Ojai Valley Land Conservancy, Ventura River Watershed Habitat Restoration Fund In-lieu Fee Mitigation Program, California (1999).

Agreement for Establishment and Administration of the Ventura River Watershed In-Lieu Fee Mitigation Program Between the U.S. Army Corps of Engineers and the Ojai Valley Land Conservancy. (August 26, 1999).

Sacramento County Planning and Community Development Department, Wetlands Mitigation Trust Fund, California (1991).

County of Sacramento, Cal., Sacramento General Plan Conservation Element § CO-96 (Dec. 15, 1993).

San Gabriel Mountains Regional Conservancy, San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program, California (2004).

Memorandum of Agreement Between the U.S. Army Corps of Engineers, Los Angeles District and the San Gabriel Mountains Regional Conservancy Regarding the Establishment and Operation of the San Gabriel River Watershed Aquatic Resource In-Lieu Fee Program. (September 2, 2004).

Santa Monica Mountains Conservancy, Los Angeles County Aquatic Resource In-lieu Fee Mitigation Program, California (2000).

Agreement for Establishment and Administration of the Los Angeles County Aquatic Resource In-Lieu Fee Mitigation Program Between the U.S. Army Corps of Engineers, Los Angeles District and the Santa Monica Mountains Conservancy. (May 22, 2000).

FLORIDA

Audubon of Florida, Florida Keys Environmental Restoration Trust Fund, Florida (1998).

Memorandum of Understanding Between the Florida Audubon Society and the U.S. Army Corps of Engineers. (May 26, 1998).

Florida Department of Environmental Protection/Water Management Districts, Florida Department of Transportation In-Lieu-Fee Program, Florida (1996).

FLA. STAT. ch. 373.4135 (2006).

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GEORGIA

Georgia Land Trust Service Center, Georgia Wetlands Trust Fund, Georgia (1997).

Agreement Between the Georgia Land Trust Service Center and the U.S. Army Corps of Engineers, Savannah District. (July 3, 1997).

ILLINOIS

DuPage County Department of Economic Development and Planning, Division of Environmental Concerns, DuPage County In-Lieu-Fee Program, Illinois (2000).

DUPAGE COUNTY, ILL., COUNTYWIDE STORMWATER AND FLOOD PLAIN ORDINANCE. §§ 15-134—15-136 (2005).

KENTUCKY

Kentucky Department of Fish and Wildlife Resources, In-Lieu-Fee Program for Stream and Wetland Mitigation, Kentucky (2003).

Agreement Concerning In-Lieu Mitigation Fees Between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers. (October 18, 2002).

KY. REV. STAT. ANN. § 150.255 (WEST 2005).

Louisville and Jefferson County Metropolitan Sewer District, Stream Corridor Restoration Fund, Kentucky (2000).

Interlocal Cooperation Agreement by and between the Louisville District U.S. Army Corps of Engineers and the Louisville and Jefferson County Metropolitan Sewer District. (July 7, 2000).

Northern Kentucky University, Environmental Resource Management Center, Stream Corridor Restoration Fund, Kentucky (1999).

Agreement Between the Environmental Resource Management Center of Northern Kentucky University, the Northern Kentucky University Foundation, and the Louisville District of the U.S. Army Corps of Engineers. (March 6, 2001).

LOUISIANA

Louisiana Department of Natural Resources Coastal Management Division, Louisiana Department of Natural Resources In-Lieu-Fee Program, Louisiana (1995).

LA. ADMIN. CODE tit. 43 § 724 (2004).

LA. REV. STAT. ANN. § 214.41 (West 2004).

MARYLAND

Maryland Department of the Environment, Nontidal Wetland Compensation Fund, Maryland (1991).

Interagency Mitigation Task Force (U.S. Army Corps of Engineers, Baltimore district; U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; National Marine Fisheries Service; Federal Highway Administration; Maryland Department of the Environment; Maryland Department of Natural Resources; Maryland State Highway Administration). *Maryland Compensatory Mitigation Guidance*. (1994). (Currently under revision).

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MISSOURI

Missouri Conservation Heritage Foundation, Stream Stewardship Trust Fund, Missouri (1999).

Memorandum of Understanding Between the Missouri Conservation Heritage Foundation and the U.S. Army Corps of Engineers, Kansas City District. (July 30, 1999).

Memorandum of Understanding Between the Missouri Conservation Heritage Foundation and the U.S. Army Corps of Engineers, St. Louis District. (October 5, 2000).

MONTANA

Montana Department of Fish, Wildlife and Parks, Montana Wetlands Legacy Trust Fund, Montana (2004).

Agreement to Establish an In-Lieu Fee Aquatic Resource Mitigation Program for the State of Montana. Signatories: Montana Department of Fish, Wildlife and Parks, U.S. Army Corps of Engineers Omaha District, and Montana Department of Environmental Quality. (April 6, 2004).

NEW JERSEY

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APPENDIX C. IN-LIEU FEE PROGRAM DATA: FUNDING AND PROJECTS

This appendix lists the 38 in-lieu fee programs covered by this study. The programs are alphabetized by sponsor name. For each program, the year established is the year that the program was first authorized; it does not necessarily indicate that the program began collecting funds that year. Total funds collected represent the total amount of fees the program reported it had collected at the time we interviewed the program sponsor (between June 2005 and April 2006). Not all in-lieu fee program sponsors clearly differentiate between funds that have been *expended* on specific projects and funds that are *allocated* to specific projects. The amount of total funds allocated/expended that is listed here may represent either of these figures or some combination of them. The number of projects initiated and completed reflects information reported by the program sponsor at the time of the interview. Different programs use different measures for determining when a project is considered complete (e.g. completion of five-year monitoring phase for a restoration site, completion of land acquisition for a preservation site) so these statistics may not be directly comparable between programs. Blank fields indicate missing data that were not provided by the program sponsors.

Program Sponsor	Program Name	Year Est.	Total Funds Collected	Total Funds Allocated/Expended	# Projects Initiated	# Projects Completed
Arizona Game & Fish Dept.	Arizona Game & Fish Dept. Mitigation Trust Account	2004	$467,250	$35,129	8	4
Audubon of Florida	Florida Keys Environmental Restoration Trust Fund	1998	$1,884,380		12	7
California Coastal Conservancy	Calleguas Creek Watershed Aquatic Resource In-Lieu-Fee Compensatory Mitigation Program	2003	$1,151,200	$553,900	3	0
DuPage County Dept. of Economic Development & Planning, Division of Environmental Concerns	DuPage County In-Lieu-Fee Program	2000	$4,345,733		4	0
Florida Dept. of Environmental Protection/Water Management Districts	Florida Dept. of Transportation In-Lieu-Fee Program	1996	$135,282,027	$62,290,273		
Georgia Land Trust Service Center	Georgia Wetlands Trust Fund	1997	$4,320,956	$2,181,335	15	15
Great Land Trust	Great Land Trust In-Lieu-Fee Program	1998	$2,393,151	$1,464,172	14	14

Program Sponsor	Program Name	Year Est.	Total Funds Collected	Total Funds Allocated/Expended	# Projects Initiated	# Projects Completed
Historic Ricefields Association	Historic Ricefields Association In-Lieu Fee Mitigation Program	2000	Unavailable			
Kachemak Heritage Land Trust	Kachemak Heritage Land Trust In-Lieu Fee Program	1999	$57,194	$0	0	0
Kentucky Dept. of Fish & Wildlife Resources	In-Lieu-Fee Program for Stream & Wetland Mitigation	2003	$22,924,842		4	3
Louisiana Dept. of Natural Resources Coastal Management Division	Louisiana Dept. of Natural Resources In-Lieu-Fee Program	1995	$955,500		2	2
Louisville & Jefferson County Metropolitan Sewer District	Stream Corridor Restoration Fund	2000	$365,903			
Maryland Dept. of the Environment	Nontidal Wetland Compensation Fund	1991	$2,560,911	$2,008,574	53	48
Mission Resource Conservation District	Santa Margarita Arundo Control Fund	1999	$273,950	$193,499		0
Missouri Conservation Heritage Foundation	Stream Stewardship Trust Fund	1999	$2,106,631	$1,170,150	24	9
Montana Dept. of Fish, Wildlife & Parks	Montana Wetlands Legacy Trust Fund	2004	$290,261		6	0
Mountains Restoration Trust	Mountains Restoration Trust In-Lieu-Fee Program	2004	$66,000	$0	1	0
National Audubon Society	Beidler Forest In-Lieu Fee Mitigation Program	2000	$228,719		4	0
National Fish & Wildlife Foundation	South Pacific Wetlands Conservation Account	2000	$2,200,000	$100,000	3	0
New Jersey Wetland Mitigation Council	Land Use Regulation Program	1988	$3,204,312	$3,041,628	20	

Program Sponsor	Program Name	Year Est.	Total Funds Collected	Total Funds Allocated/Expended	# Projects Initiated	# Projects Completed
North Carolina Ecosystem Enhancement Program	Stream and Wetland In-Lieu Fee Program	1998	$1,141,983		[a]	0
North Carolina Ecosystem Enhancement Program	Stream and Wetland In-Lieu Fee Program for NCDOT	2003	$54,000,000		[a]	0
Northern Kentucky University, Environmental Resource Management Center	Stream Corridor Restoration Fund	1999	$7,864,165	$2,300,000	5	0
Ojai Valley Land Conservancy	Ventura River Watershed Habitat Restoration Fund In-Lieu Fee Mitigation Program	1999	$154,335			
Oregon Dept. of State Lands	In-Lieu Fee Mitigation Program	1993	$3,343,180	$1,475,415	29	
National Fish & Wildlife Foundation	Pennsylvania Wetlands Replacement Project	1996	$1,200,000	$1,190,000	70	51
Sacramento County Planning & Community Development Dept.	Wetlands Mitigation Trust Fund	1991	$266,332	$229,519		
San Gabriel Mountains Regional Conservancy	San Gabriel River Watershed Aquatic Resource In-Lieu-Fee Program	2004	$0	$0	0	0
Santa Monica Mountains Conservancy	Los Angeles County Aquatic Resource In-Lieu Fee Mitigation Program	2000	$2,193,240		36	0
Southeast Alaska Land Trust	Southeast Alaska Land Trust In-Lieu Fee Program	1998	$371,481	$15,000	1	0
Tennessee Wildlife Resources Foundation	Tennessee Stream Mitigation Program	2002	$18,230,600		12	3
The Conservation Fund	The Conservation Fund In-Lieu Fee Program	1998	$489,360	$50,000	2	2
The Conservation Fund	Alaska Wetlands Conservation Fund	2004	$866,029	$365,039	1	1
The Elizabeth River Project	Elizabeth River Restoration Trust	2004	$5,310,500	$589,410	2	1

[a] The North Carolina Ecosystem Enhancement Program (NCEEP) indicated that a total of 249 individual mitigation projects were underway as of June 30, 2005, however, the NCEEP report does not differentiate between the projects undertaken for each of the in-lieu fee programs it operates.

Program Sponsor	Program Name	Year Est.	Total Funds Collected	Total Funds Allocated/Expended	# Projects Initiated	# Projects Completed
The Nature Conservancy	The Nature Conservancy In-Lieu-Fee Program [Texas]	1998	$1,500,000	$1,000,000	6	2
The Nature Conservancy	Virginia Aquatic Resources Trust Fund	1995	$18,685,802	$6,574,888	42	0
The Wilderness Center	Sugar Creek Wetland/Watershed In-Lieu Fee Mitigation Initiative	2004	$102,360		1	0
Tucson Audubon Society	Tucson Audubon Society Conservation Account	2004	$941,804	$941,804	2	0

APPENDIX D. IN-LIEU FEE PROGRAM DATA: IMPACTS TO BE OFFSET AND MITIGATION ACHIEVED

This appendix lists the 38 in-lieu fee programs covered by this study. The programs are alphabetized by, sponsor name. For each program, the year established is the year that the program was first authorized; it does not necessarily indicate that the program began collecting funds that year. Aquatic resource impacts to be offset are the total amount of permitted wetland or stream impacts for which a program reported accepting fees in-lieu of other types of mitigation. Not all programs provided complete data and these totals may not include all of the impacts that each program is supposed to offset. Aquatic resources replaced are the total amount of aquatic resource mitigation that each program reported having accomplished. To the best of our knowledge, these figures represent projects that are completed or are in progress. Not all programs clearly distinguish between projects that are planned, in progress, and completed, however, so these statistics may include upcoming mitigation projects that have not yet begun. The percentage of mitigation accomplished through each mitigation type is calculated such that the total amount of mitigation accomplished by each program equals 100 percent. These percentages are based on the mitigation data supplied by the programs wherever possible but, where data were unavailable or incomplete, these percentages may represent the best estimate of the interviewee for each program. Blank fields indicate missing data that were not provided by the programs.

			Aquatic Resource Impacts to be Offset		**Aquatic Resources Replaced**		**Percentage of Total Mitigation Accomplished through each Mitigation Type**			
Sponsor	**Program Name**	**Year Est.**	*Wetland (acres)*	*Stream (lf)*	*Wetland (acres)*	*Stream (lf)*	*Restoration*	*Creation*	*Enhancement*	*Preservation*
Arizona Game & Fish Dept.	Arizona Game & Fish Dept. Mitigation Trust Account	2004					100	0	0	0
Audubon of Florida	Florida Keys Environmental Restoration Trust Fund	1998					90	0	10	0
California Coastal Conservancy	Calleguas Creek Watershed Aquatic Resource In-Lieu-Fee Compensatory Mitigation Program	2003	9.3		19.6		95	0	5	0
DuPage County Dept. of Economic Development & Planning, Division of Environmental Concerns	DuPage County In-Lieu-Fee Program	2000	15.5		25.9		75	25	0	0

Sponsor	Program Name	Year Est.	Aquatic Resource Impacts to be Offset		Aquatic Resources Replaced		Percentage of Total Mitigation Accomplished through each Mitigation Type			
			Wetland (acres)	*Stream (lf)*	*Wetland (acres)*	*Stream (lf)*	*Restoration*	*Creation*	*Enhancement*	*Preservation*
Florida Dept. of Environmental Protection/Water Management Districts	Florida Dept. of Transportation In-Lieu-Fee Program	1996	1590							
Georgia Land Trust Service Center	Georgia Wetlands Trust Fund	1997	29.8	32,640	263.4	32,207	0	0	0	100
Great Land Trust	Great Land Trust In-Lieu-Fee Program	1998			279		0	0	0	100
Historic Ricefields Association	Historic Ricefields Association In-Lieu Fee Mitigation Program	2000								
Kachemak Heritage Land Trust	Kachemak Heritage Land Trust In-Lieu Fee Program	1999	14.8		0					
Kentucky Dept. of Fish & Wildlife Resources	In-Lieu-Fee Program for Stream & Wetland Mitigation	2003	3		6	12,587	60	0	40	0
Louisiana Dept. of Natural Resources Coastal Management Division	Louisiana Dept. of Natural Resources In-Lieu-Fee Program	1995					0	50	15	35
Louisville & Jefferson County Metropolitan Sewer District	Stream Corridor Restoration Fund	2000								
Maryland Dept. of the Environment	Nontidal Wetland Compensation Fund	1991			336.1		85	5	10	0

Sponsor	Program Name	Year Est.	Aquatic Resource Impacts to be Offset		Aquatic Resources Replaced		Percentage of Total Mitigation Accomplished through each Mitigation Type			
			Wetland (acres)	*Stream (lf)*	*Wetland (acres)*	*Stream (lf)*	*Restoration*	*Creation*	*Enhancement*	*Preservation*
Mission Resource Conservation District	Santa Margarita Arundo Control Fund	1999	24.9		23.7[a]				100[a]	
Missouri Conservation Heritage Foundation	Stream Stewardship Trust Fund	1999		43.2 (acres)[b]		756.3 (acres)[b]	16	0	0	84
Montana Dept. of Fish, Wildlife & Parks	Montana Wetlands Legacy Trust Fund	2004	7.6		11.1		100	0	0	0
Mountains Restoration Trust	Mountains Restoration Trust In-Lieu-Fee Program	2004	3.16		0					
National Audubon Society	Beidler Forest In-Lieu Fee Mitigation Program	2000			141.1		0	0	45	55
National Fish & Wildlife Foundation	Pennsylvania Wetlands Replacement Project	1996	101.9		119.6		30	70	0	0
National Fish & Wildlife Foundation	South Pacific Wetlands Conservation Account	2000			95		0	0	100	0
New Jersey Wetland Mitigation Council	Land Use Regulation Program	1988	27.4		434.7		20	0	20	60

[a] The Mission Resource Conservation District's Santa Margarita Arundo Control Fund conducts all wetland mitigation through invasive species removal and remediation.
[b] The Missouri Conservation Heritage Foundation's Stream Stewardship Trust Fund is the only stream mitigation program that reported impacts and mitigation in acres instead of linear feet.

Sponsor	Program Name	Year Est.	Aquatic Resource Impacts to be Offset		Aquatic Resources Replaced		Percentage of Total Mitigation Accomplished through each Mitigation Type			
			Wetland (acres)	*Stream (lf)*	*Wetland (acres)*	*Stream (lf)*	*Restoration*	*Creation*	*Enhancement*	*Preservation*
North Carolina Ecosystem Enhancement Program	Stream and Wetland In-Lieu Fee Program	1998			22,436[c]	1,552,575[c]	Wetland: 36%[c] Stream: 48.2%[c]	Wetland: 1.7%[c] Stream: 0%[c]	Wetland: 11.7%[c] Stream: 3.1%[c]	Wetland: 50.5%[c] Stream: 48.6%[c]
North Carolina Ecosystem Enhancement Program	Stream and Wetland In-Lieu Fee Program for NCDOT	2003			[c]	[c]	[c]	[c]	[c]	[c]
Northern Kentucky University, Environmental Resource Management Center	Stream Corridor Restoration Fund	1999				17,800	80	0	20	0
Ojai Valley Land Conservancy	Ventura River Watershed Habitat Restoration Fund In-Lieu Fee Mitigation Program	1999	1.2		2.2		50	50	0	0
Oregon Dept. of State Lands	In-Lieu Fee Mitigation Program	1993								
Sacramento County Planning & Community Development Dept.	Wetlands Mitigation Trust Fund	1991	7.5							
San Gabriel Mountains Regional Conservancy	San Gabriel River Watershed Aquatic Resource In-Lieu-Fee Program	2004	0		0		n/a	n/a	n/a	n/a

[c] The data supplied by the North Carolina Ecosystem Enhancement Program (NCEEP) for its in-lieu fee programs do not differentiate between the two programs. The data presented here are the combined data from both programs.

Sponsor	Program Name	Year Est.	Aquatic Resource Impacts to be Offset		Aquatic Resources Replaced		Percentage of Total Mitigation Accomplished through each Mitigation Type			
			Wetland (acres)	*Stream (lf)*	*Wetland (acres)*	*Stream (lf)*	*Restoration*	*Creation*	*Enhancement*	*Preservation*
Santa Monica Mountains Conservancy	Los Angeles County Aquatic Resource In-Lieu Fee Mitigation Program	2000			23.1					
Southeast Alaska Land Trust	Southeast Alaska Land Trust In-Lieu Fee Program	1998			12		0	0	0	100
Tennessee Wildlife Resources Foundation	Tennessee Stream Mitigation Program	2002		91,153		112,334	80	0	20	0
The Conservation Fund	Alaska Wetlands Conservation Fund	2004	284		207		0	0	0	100
The Conservation Fund	The Conservation Fund In-Lieu Fee Program	1998	69.3		415[d]		0	0	0	100
The Elizabeth River Project	Elizabeth River Restoration Trust	2004	[e]		[e]		[e]	[e]	[e]	[e]
The Nature Conservancy	The Nature Conservancy In-Lieu-Fee Program [Texas]	1998								
The Nature Conservancy	Virginia Aquatic Resources Trust Fund	1995	179.1	49,356	3,484.9	61,742	Wetland: 19.3% Stream: 24%	Wetland: 0% Stream: 0%	Wetland: 14.8% Stream: 47%	Wetland: 65.9% Stream: 29%

[d] The Conservation Fund's In-Lieu Fee program replaced this amount of aquatic resources using a combination of in-lieu fee program funds and funding from other sources. The in-lieu fee program funds contributed approximately 17 percent of the total project costs.

[e] The Elizabeth River Project's Elizabeth River Restoration Trust was used to offset dredging impacts to 189 acres of river bottom and to offset the filling of 2.1 acres of open water and benthic habitat. The permit for those activities required 2 acres of mitigation for open water and subaqueous impacts. To offset these impacts, the program reported that it has created 13 acres of 2-D oyster reef and restored 13 acres of oyster reef, and is planning a 32-acre sediment remediation project.

Sponsor	Program Name	Year Est.	Aquatic Resource Impacts to be Offset		Aquatic Resources Replaced		Percentage of Total Mitigation Accomplished through each Mitigation Type			
			Wetland (acres)	*Stream (lf)*	*Wetland (acres)*	*Stream (lf)*	*Restoration*	*Creation*	*Enhancement*	*Preservation*
The Wilderness Center	Sugar Creek Wetland/ Watershed In-Lieu Fee Mitigation Initiative	2004	1.3		3.2		0	0	0	100
Tucson Audubon Society	Tucson Audubon Society Conservation Account	2004	93.6		182.3		50	0	50	0

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