

Commonwealth of Massachusetts Department of Fish and Game

In-Lieu Fee Program 2023 Annual Report



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Introduction

The In-Lieu Fee Program (“ILFP”) of the Massachusetts Department of Fish and Game (“DFG”) was established in May 2014. The U.S. Army Corps of Engineers (“Corps”) approved DFG to be the sponsor of a statewide program that would provide In-Lieu Fee compensatory mitigation associated with Corps permits under §404 of the Clean Water Act and/or §§9 or 10 of the Rivers and Harbors Act of 1899 and related federal rule at 33 C.F.R. Part 332 (the federal Mitigation Rule). Specifically, on May 23, 2014 the Corps and DFG signed an Instrument developed by DFG that set forth a comprehensive description of how DFG will administer its ILFP in Massachusetts. The ILFP is administered by the DFG Commissioner’s Office in collaboration with the Department’s Division of Marine Fisheries (“DMF”), Division of Fisheries and Wildlife (“MassWildlife”) and Division of Ecological Restoration (“DER”).

The availability of DFG’s ILFP allows permittees, with the Corps’ approval, to make a monetary payment in compensation for project impacts to aquatic resources of the U.S. in Massachusetts, in-lieu of on-site mitigation. When these In-Lieu Fee (“ILF”) payments are made to the ILFP, DFG assumes legal responsibility for implementing the required mitigation, which it does by aggregating and expending the ILF payments on approved mitigation projects. The ILFP goals include implementing in-kind mitigation in the same geographical area where impacts occurred. For the purposes of the ILFP, Massachusetts is divided into geographic Service Areas. Appendix A of this report includes a map showing the boundaries of ILF Service Areas and the locations of all permitted impacts for which an ILF payment has been made (from 5/23/14 – 12/31/23).

This calendar year (“CY”) 2023 Annual Report is provided in accordance with Section XVIII of the ILFP Instrument, which requires that DFG submit an annual report that includes information on each Corps-permitted project for which an ILF payment was made to DFG, the ending balance of ILFP credits advanced and released at the end of the annual reporting period for each Service Area, and a related financial accounting ledger. Appendix B includes information on all ILF payments and credits tracked from the date of the establishment of the DFG ILFP on May 23, 2014 through December 31, 2023. Section II of this report includes the ending balance of credits (Table 3) and financial account ledger (Table 4). This report also provides an update on ILF mitigation project implementation (Section III), program development plans (Section IV), and DMF ILF projects that were approved under a Memorandum of Agreement with the Corps, prior to the 2014 ILFP Instrument (Section V).

I. Executive Summary

Since the DFG’s ILFP was established in May of 2014, 96 Corps permittees have made an ILF payment to the program (through 12/31/23) for 119 Corps-permitted projects. The payments received by DFG since the ILFP was established total \$8,072,764. These payments were required to provide compensatory mitigation for impacts to 12.201 acres of wetlands and 1,252 linear feet of river and stream. Tables 1a. and 1b. below include a summary of freshwater and tidal mitigation credits sold and ILF payments received since program establishment.

During CY 2023 (01/01/2022 - 12/31/2023), DFG's ILFP received nine payments from permittees who were required by the Corps to make an ILF payment. DFG received ILF payments totaling \$754,393 in CY 2023, for a total program revenue of \$8,072,764¹. The 2023 ILF payments were required to compensate for impacts to 1.19 acres of wetland resources and 38 linear feet of river and stream. Table 2 provides a summary of these CY 2023 payments and the corresponding credits sold statewide and within each Service Area.

The Corps approved release of credits for the first mitigation project in the MA ILF's Connecticut River Service Area in CY 2023. See Table 3 for a summary of mitigation credits advanced, sold, and ending balance by Service Area. Implementation of the first MA ILF mitigation project, an eelgrass restoration project, began in CY 2017 when DFG's Division of Marine Fisheries (DMF) planted half of an acre of eelgrass in Salem Sound. Additional planting occurred in 2018, and the project completed its final year of monitoring for the supplemental planting in 2023. Seventy-five percent, or 0.375, of the total project credits were released as of 2022 for completing the planting and monitoring. No additional credits have been released for DMF's artificial reef in Nantucket Sound since the first forty percent, or 0.2796, of the total credits associated with the project were released in 2020 for completion of the installation. Monitoring of the reef continues, and DFG anticipates requesting additional credit release in the future after ecological performance standards are achieved. Nantucket Conservation Foundation initiated its oyster reef and salt marsh restoration project in 2021. The ILFP requested the release of 0.0775 wetlands credits, representing 30% of the total potential 0.258 wetland credits. Six mitigation projects previously approved by the Corps and another two projects approved in CY 2023 are underway. A summary of these projects is provided below in Section III.

The total expenditure of ILFP revenue by the end of CY 2023 amounted to \$2,443,635, of which \$2,226,795 was for mitigation project implementation and the balance was for program administration.

This Annual Report includes a CY 2023 ILFP financial account ledger (Table 4) showing beginning and ending balances for the calendar year, with a summary of ILF payments received for each Service Area and a summary of expenditures for mitigation projects and administrative expenses. The ILFP continues to track all ILF payments received, and credits sold by Service Area and by type of resource impact. See Appendix B for a listing of all ILF payments received (5/23/14 - 12/31/23) with corresponding details on permittee, Corps permit number, geographic location, and the type of resource impact for which an ILF payment was required. Some ILF payments were for multiple resource impacts, and these fees are broken out in Appendix B to reflect the payment for each type of resource impact. Additionally, some permittees have made payments for multiple projects. Therefore, the total number of records (143) in Appendix B is greater than the

¹ Total ILFP receipts were \$440 less than the total ILF payment amount required by Corps permits due to two errors: 1) on a permittee check, amount paid was \$12,260 instead of the required \$12,620 and 2) on a DFG deposit where check was correctly made out for \$4,991 but deposit amount was \$4,911.

total number of permittees (96) or Corps-permitted projects (119) for which an ILFP payment was made.

II. ILF Payments, Mitigation Credits Sold, and Calendar Year 2023 Financial Account Ledger

A total of 12.201 wetland credits and 1,252 stream credits have been sold since the establishment of the ILFP in 2014. Wetland ILF payments and associated credit sales are calculated based on the area (square feet, acres) of impact. The sale of 12.201 wetlands credits represents ILF payments made in compensation for a total of 12.201 acres of wetlands impact. Stream credits are calculated based on linear feet of impact. The sale of 1,252 stream credits reflects the receipt of ILF payments for impact to 1,252 linear feet of riverine aquatic resources. One stream credit is equivalent to one linear foot of stream including both banks and stream channel (e.g., impacts to one linear foot of stream on right bank only would require purchase of 0.33 stream credits). Table 1a below provides a summary of the amount of freshwater and tidal wetlands and stream credits that were sold within each ILF Service Area since the establishment of the ILFP through December 31, 2023. Table 1b provides further detail for the three Coastal sub-areas.

TABLE 1a. ILFP Service Areas: Summary of Freshwater and Tidal Mitigation Credits Sold and ILF Payments Received Since Program Establishment

Service Area	Credits Sold		Total ILF Payments Received (5/23/14 – 12/31/23)
	Wetlands Credits	Stream Credits	
Berkshire/Taconic Service Area			
Freshwater	0.00	75.33	\$22,600
Connecticut River Service Area			
Freshwater	0.454	206.76	\$333,683
Quabbin/Worcester Service Area			
Freshwater	0.971	492.00	\$729,514
Coastal Service Area			
			\$6,986,987
Freshwater	3.952	475.03	\$2,741,017
Tidal	6.824	3.3	\$4,245,950
TOTAL	12.201	1,252	\$8,072,764
Freshwater	5.377	1,249.12	\$3,826,814
Tidal	6.824	3.30	\$4,245,950

TABLE 1b. Coastal Service sub-areas: Summary of Freshwater and Tidal Mitigation Credits Sold and ILF Payments Received Since Program Establishment

Coastal Service Area sub-areas	Credits Sold		Total ILF Payments Received (5/23/14 – 12/31/23)
	Wetlands Credits	Stream Credits	
North sub-area			
Freshwater	0.937	272.03	\$745,755
Tidal	5.221	3.3	\$3,243,774
Central sub-area			
Freshwater	0.714	64.00	\$482,104
Tidal	0.250	0.0	\$154,697
South sub-area			
Freshwater	2.302	139.0	\$1,513,158
Tidal	1.354	0.0	\$847,558

Table 2 below summarizes credits sold and payments received in CY 2023 by Service Area and statewide.

TABLE 2. Calendar Year 2023 ILF Payments Received and Credits Sold

ILF Service Area	2023 Wetland Credits Sold	2023 Stream Credits Sold	2023 ILF Payments Received (01/01/23 – 12/31/23)
Berkshire/ Taconic	0.00	0.00	\$0
Connecticut River	0.00	0.00	\$0
Quabbin/Worcester	0.175	10.00	\$108,158
Coastal-North	0.621	27.67	\$401,676
Coastal-Central	0.000	0.00	\$0
Coastal-South	0.394	0.00	\$244,559
2023 Statewide Total	1.19	37.67	\$754,393

When the ILFP was established in 2014, advanced credits were allocated to the Service Areas. Table 3 below outlines credits advanced, sold, released, and the ending credit balance for CY 2023.

TABLE 3. Calendar Year 2023 Ending Balance of Credits by ILF Service Area.

ILF Service Area	Credits Advanced		Credits Sold		Credits Released ²		2023 Ending Balance (12/31/23)	
	Wetland	Stream	Wetland	Stream	Wetland	Stream	Wetland	Stream
Berkshire/Taconic	50	5,741	0	75.33	0.2	220	50.2	5,885
Connecticut River	50	2,500	0.454	206.76	1.684	210	51.23	2,503
Quabbin/Worcester	52	2,500	0.971	492	2.157	300	53.186	2,308
Coastal	130 ³	162,819	10.777	478.33	14.654	625.51	133.877	162,966
Statewide Total	282	173,560	12.201	1,252	18.695	1,355.51	288.493	173,662

The Financial Account Ledger for CY 2023 is presented in Table 4 below (4A – 4E). Program expenditures in CY 2023 were used for ILFP administrative costs and project implementation costs including monitoring and reporting on the Salem Sound eelgrass restoration, Yarmouth reef, and Nantucket reef projects; development of the eelgrass restoration site selection model; design of cranberry bog restoration projects in Mashpee and Kingston; data collection for a dam removal in Brookfield and salt marsh restoration in Barnstable; eelgrass planting in Nantucket; and land acquisition in Hampden.

² Credits released for the Coastal Service Area includes 3.733 wetland credits and 25.2 stream credits released from pre-2014 DMF ILF projects.

³ Prior annual reports inaccurately noted advanced credits as “50” in the Coastal Service Area. However, as indicated in the MA ILFP Instrument, 130 advance credits were allocated to the Coastal Service Area.

TABLE 4. MA ILFP Financial Account Ledger

4A. MA ILFP Revenue by Service Area

ILFP Service Area	Beginning Balance [Payments Received 5/23/14 - 12/31/22]	CY 2023 Payments [1/1/23 - 12/31/23]	Total ILF Payment Revenue 5/23/14 - 12/31/23
Berkshire/Taconic	\$22,600	\$0	\$22,600
Connecticut River	\$333,683	\$0	\$333,683
Quabbin/Worcester	\$621,357	\$108,158	\$729,515
Coastal	\$6,340,730	\$646,235	\$6,986,966
<i>Coastal-North</i>	\$3,587,853	\$401,676	\$3,989,529
<i>Coastal Central</i>	\$636,721	\$0	\$636,721
<i>Coastal South</i>	\$2,116,156	\$244,559	\$2,360,715
subtotal	\$7,318,370	\$754,393	\$8,072,763

4B. Allocation of ILF Payment Revenue to Mitigation Project Implementation and Program Administration

ILFP Service Area	Total ILF Payments Received (5/23/14 - 12/31/23)	Mitigation Project Implementation (82.5%)	ILF Program Administration (17.5%)
Berkshire/Taconic	\$22,600	\$18,645	\$3,955
Connecticut River	\$333,683	\$275,289	\$58,395
Quabbin/Worcester	\$729,515	\$601,850	\$127,655
Coastal	\$6,986,966	\$5,764,246	\$1,222,719
<i>Coastal-North</i>	\$3,989,529	\$3,291,361	\$698,168
<i>Coastal Central</i>	\$636,721	\$525,295	\$111,426
<i>Coastal South</i>	\$2,360,715	\$1,947,590	\$413,125
subtotal	\$8,072,763	\$6,660,029	\$1,412,734

4C. MA ILF Mitigation Project Funds and Expenditures by Service Area [5/23/14 - 12/31/23]

ILFP Service Areas	Mitigation Project Funds 82.5% of total ILF Payments	Total Project Expenditures	Ending Balance ⁴ Mitigation Project Funds 12/31/23
Berkshire/Taconic Service Area	\$18,645	\$13,447	\$5,198
Connecticut River Service Area	\$275,289	\$122,940	\$152,349
Quabbin/Worcester Service Area	\$601,850	\$289,229	\$312,621
Coastal Service Area	\$5,764,246	\$1,801,179	\$3,963,067
<i>North sub-area</i>	\$3,291,361	\$650,936	\$2,640,425
<i>Central sub-area</i>	\$525,295	\$88,441	\$436,854
<i>South sub-area</i>	\$1,947,590	\$1,061,802	\$885,788
Total	\$6,660,029	\$2,226,795	\$4,433,325

4D. MA ILF Program Administration Funds and Expenditures - State-Wide [05/23/14 - 12/31/23]

ILFP Service Areas	Administration Funds 17.5% of ILF Payments	Total Program Administration Expenditures ⁵	Ending Balance Program Administration Funds
All Service Areas - Statewide	\$1,412,734	\$216,840	\$1,195,894

4E. MA ILF Program Financial Summary

	Mitigation Project Funds	Administration Funds	TOTAL
Revenue	\$6,660,029	\$1,412,734	\$8,072,763
Expenditures	\$2,226,795	\$216,840	\$2,443,635
Balance	\$4,433,325	\$1,195,894	\$5,629,128

⁴ \$1,208,233 of the Ending Balance is committed to ILF projects awarded funding prior to 12/31/2023 and commitments for an additional \$1,027,559 are pending.

⁵ Administration funds were used for ILFP staff salaries (ILF Program Administrator, ILF Aquatic Mitigation Specialist, and Restoration Cost Data Specialist). DFG also funded portions of the ILFP staff salaries with other non-ILF DFG funds.

III. ILFP Mitigation Projects

TABLE 5. Project Status Summary

DFG#	ILF Project	Project Status
IL01	Eelgrass Restoration, Salem Sound	Final Mitigation Plan and Year 5 monitoring complete
IL02	Nemasket River Preservation, Middleboro	Final Mitigation Plan and Year 3 monitoring complete, protection instruments in place
IL03	Williams River Preservation	Final Mitigation Plan and Year 3 monitoring complete, protection instruments in place
IL04	Town Farm_Greens Point Preservation, Ipswich	Final Mitigation Plan and Year 3 monitoring complete, protection instruments in place
IL05	Yarmouth Reef_Marine Habitat Enhancement	Final Mitigation Plan and reef deployment complete, Year 4 monitoring underway
IL06	Willowdale Dam Fishway, Ipswich	Withdrawn
IL07	Parker River Connector Preservation, Newbury	Final Mitigation Plan and Year 2 monitoring complete, protection instruments in place
IL08	Eelgrass Restoration, Site Suitability and Test Planting	Phase 1 and 2 of site suitability studies underway. Draft mitigation plan submitted & reviewed
IL09	Lyons Brook Coldwater Stream Preservation, Westport	Final Mitigation Plan and Year 3 monitoring complete, protection instruments in place
IL11	Chop Chaque Cranberry Bog Restoration, Mashpee	Draft mitigation plan submitted & reviewed. Construction anticipated in 2024
IL12	Plymouth Bog Preservation	Withdrawn
IL13	Plum Brook Restoration, Amherst	Withdrawn
IL14	Gionet Preservation, Barre	Final Mitigation Plan and protection instrument complete, Year 1 monitoring complete
IL15	Nantucket Oyster Reef and Salt Marsh Enhancement	Final Mitigation Plan and oyster reef in place, Year 2 monitoring complete
IL16	Pye Brook Weir Removal, Topsfield/Ipswich	Inactive – not started
IL17	Nantucket Eelgrass Restoration, Nantucket Harbor	Eelgrass planting initiated, Final Mitigation Plan and post-planting report submitted
IL18	Blackwater Memorial Forest Wetland Restoration, Kingston	Draft Mitigation Plan submitted & reviewed. Construction anticipated in 2024
IL19	Barnstable Great Marsh Restoration, Barnstable	Project design underway. Draft Mitigation Plan to be submitted in 2024
IL20	Scantic River Preservation, Hampden	Final Mitigation Plan complete, protection instrument in place.
IL21	Red Brook WMA Restoration, Plymouth/ Wareham	Anticipate final design/permitting and Draft Mitigation Plan in 2024.

DFG#	ILF Project	Project Status
IL22	Salmon Brook Restoration, Brookfield	Design & permitting underway. Anticipate Draft Mitigation Plan in 2024.
IL23	Rough Meadows Restoration, Rowley	Design submitted to MassDEP for pre-filing consultation. Anticipate Draft Mitigation Plan in 2024.

IL01. Eelgrass Restoration Project, Salem Sound

The Division of Marine Fisheries (DMF) eelgrass restoration project was approved by the Corps in 2017 and awarded up to \$262,092 in ILF funding. The project restored ½ acre of eelgrass meadows in the ILFP’s Coastal-North Service Area at the Middle Ground site in Salem Sound. . DMF has completed the fifth year of annual monitoring. Restoration success is determined by the persistence and expansion of the planted eelgrass over six years, from 2017 to 2023. Metrics are on the expected restoration trajectory. That is, they have continued to show planting unit survival greater than 50% and an annual increase in density and plot expansion overall. In 2023 all transplant sites increased in morphometrics and expanded in area from the previous year. To date, 0.375 tidal wetlands credits have been released. A final monitoring report will be submitted to the Corps under separate cover.

IL02. Nemasket River Preservation, Middleborough, MA

The Corps released the credits for this project in 2021 (2.73 freshwater wetlands credits).

IL03. Williams River Preservation, West Stockbridge, MA

The Corps released the credits for this project in 2021 (220 stream credits and 0.2 freshwater wetlands credits).

IL04. Town Farm Road Preservation, Ipswich, MA

The Corps released the credits for this project in 2021, which amounted to 1.614 wetlands credits (1.326 estuarine wetlands and 0.288 upland preservation credits).

IL05. Marine Habitat Enhancement, Yarmouth Artificial Reef

The Yarmouth artificial reef project in the Coastal-South Service Area will enhance marine sub-tidal habitat in Nantucket Sound for a range of sessile and mobile species. This mitigation project was approved by the Corps in 2019 and awarded \$275,227 in ILF funding. DMF awarded a contract for the deployment of reef materials in 2019. The actual deployment was delayed until January 2020 due to weather. Approximately 2,040 cubic yards of concrete and granite were deployed from three barge loads. The entire site was surveyed using side-scan sonar on January 23, 2020 to verify that the material was deployed in accordance with permit requirements and to more precisely estimate the actual square footage of material that was deployed. The MA ILFP submitted the first annual report and credit release request for this project. The Corps approved release of 40% of the project credits (0.2796 tidal wetlands credits) on November 24, 2020. A 2023 annual monitoring report will be submitted to the Corps under separate cover.

IL06. Willowdale Dam Fishway, Ipswich, MA

This project has been withdrawn because the Project Sponsor has chosen to construct an alternative design (nature-like fishway) at this site using other non-ILFP funding sources.

IL07. Parker River Connector Preservation, Newbury, MA

The Corps released the credits for this project in 2022, which amounted to 3.187 wetland credits and 300 stream credits.

IL08. Eelgrass Restoration - Site Suitability Model and Test Planting

This mitigation project, sponsored by DMF, was conditionally approved by the Corps in 2020 with a phased approach to funding and implementation. The project was awarded \$241,585 in ILF funding. The goal of this project is to develop an eelgrass (*Zostera marina*) habitat suitability and transplant site selection tool with targeted test planting at selected sites. DMF used ILFP funds to develop a preliminary map of potential eelgrass restoration sites based on desktop-accessible data, including historic eelgrass presence, surficial sediment type and water depth as well as conflicting uses. Based on the preliminary map, DMF selected several sites spanning the South, Central and North Coastal Sub-Areas to field-verify model predictions. DMF collected field data at six sites in the Coastal North and Central Sub-Areas in 2021 and five sites in the Coastal South Sub-Area in 2022. In December of 2022, the ILFP submitted a draft mitigation plan identifying seven locations where DMF proposes to plant test plots. Test planting is underway and will continue in 2024. The final map and recommendations will inform additional future full-scale eelgrass restoration projects.

IL09. Lyons Brook Preservation, Westport, MA (aka Westport Coldwater Streams)

The Corps released the credits for this project in 2021 (1.97 wetlands credits and 300 stream credits).

IL11. Chop Chaque Cranberry Bog Restoration, Mashpee, MA

This mitigation project, sponsored by the Town of Mashpee, was conditionally approved by the Corps in 2021 with a phased approach to funding and implementation. The Town owns the project site, an 11.7-acre parcel of land next to Santuit Pond that includes 6.5 acres of retired cranberry bogs in the ILFP's Coastal-South Service Area. The project was awarded \$15,000 in ILF funding to complete a site reconnaissance study to evaluate the technical feasibility of restoring self-sustaining wetlands on the site and the likely cost of restoring this site. The study was completed in the fall of 2021. The ILFP awarded \$505,000 in additional funding in 2022 to complete this restoration project. The ILFP submitted a draft mitigation plan to the Corps for review in November of 2022 and will submit a revised version in 2024. The project completed the permitting process in 2023. Construction is anticipated to occur in 2024.

IL12. Plum Brook Culvert Replacement, Amherst, MA

This project has been withdrawn because it was determined that a larger structure would be needed in order to meet stream crossing standards at this location, significantly increasing the total project cost.

IL13. Cranberry Bog Conservation, Plymouth, MA

This project has been withdrawn because the project partners encountered challenges completing a related project that they have sequenced ahead of the ILF project in their strategy for protecting and restoring this area.

IL14. Burnshirt Watershed Conservation, Barre, MA

The Corps released the credits for this project in 2022 (2.157 wetland credits and 300 stream credits).

IL15. Oyster Reef & Saltmarsh Restoration, Nantucket, MA

The Nantucket Conservation Foundation (NCF) was awarded was awarded \$84,354 in ILF funds to install an oyster reef in Polpis Harbor and plant saltmarsh grasses to combat loss of salt marsh in an approximately 1.1-acre area around Medouie Creek due to erosion and vegetation dieback. The reef consists of three linear reef structures covering approximately 160-180 linear feet and occupies approximately 0.17 acres of intertidal habitat in the ILFP's Coastal-South Service Sub-Area. NCF will also monitor the adjacent 15.7 acres of saltmarsh for purple marsh crab and vegetation dieback and implement trapping and replanting plans as needed over the course of the project to mitigate threats to the success of the restoration. NCF purchased and seeded the oyster castles in the spring of 2021 and installed them at the project site in the fall after the required permits were obtained. The ILFP requested the release of 0.129 wetlands credits, representing 50% of the total potential 0.258 wetland credits, for the implementation of the project and achievement of performance standards during the first two years of monitoring. A 2023 monitoring report has been submitted to the Corps under separate cover.

IL16. Pye Brook Weir Removal, Topsfield, MA

This project is inactive. If the ILF funds that were requested for this project are needed for another mitigation project, the ILFP will withdraw this project.

IL17. Eelgrass Restoration, Nantucket, MA

The Nantucket Land Council was awarded \$105,359 in ILF funds to restore two half-acre beds of eelgrass in Nantucket Harbor. Both restoration sites are essential fish habitat (EFH). The eelgrass beds in Nantucket Harbor also support a "wild" bay scallop fishery that is rare in the U.S. The first of three seasons of planting began in the fall of 2022. The Final Mitigation Plan and post-planting report have been submitted to the Corps. A 2023 monitoring report will be submitted to the Corps under separate cover. Restoration success is determined by the persistence and expansion of the planted eelgrass over five years of monitoring.

IL18. Blackwater Memorial Forest Wetland Restoration, Kingston, MA

The Town of Kingston was awarded \$353,929 in ILF funds to restore freshwater wetland and stream resources on a retired cranberry farm. The Town purchased the restoration site in March of 2022 and conveyed a CR to Wildlands Trust in December of 2023. The Town has hired a consultant to help them prepare design plans and apply for permits for the restoration project. A Draft Mitigation Plan was submitted and reviewed in 2023. Construction is anticipated in the fall of 2024.

IL19. Barnstable Great Marsh Restoration, Barnstable, MA

Mass Audubon was awarded \$146,000 in ILF funds to restore salt marsh on their Barnstable Great Marsh Wildlife Sanctuary that has been degraded by historic agricultural impacts. Mass Audubon held a workshop in 2022 to kick off this project. They have hired a consultant to prepare design plans for the restoration project. A Draft Mitigation Plan is expected in 2024.

IL20. Laughing Brook Preservation, Hampden, MA

Mass Audubon was awarded \$150,000 in ILF funds to acquire and permanently protect a parcel of nearly 60 acres of land including freshwater wetlands and critical habitat for vernal pools along the Scantic River. The parcel is adjacent to Mass Audubon's Laughing Brook Wildlife Sanctuary. Mass Audubon purchased the site in June of 2023 and conveyed a conservation restriction on the property to the Town of Hampden. A Final Mitigation Plan has been amended to the ILFP Instrument, and the Corps released 1.684 wetland credits and 210 stream credits for this project.

IL21. Red Brook WMA Restoration, Plymouth/ Wareham, MA

The ILF Program offered an award of \$500,000 to MassWildlife to restore a 70-acre retired cranberry farm that they acquired for the Red Brook Wildlife Management Area. About half of the restored area will be wetlands including marsh, wet meadow, fen, and forested wetlands. The project will also improve almost 7,000 feet of stream. MassWildlife expects to contract final design and permitting services in 2024 and implement the project in 2025/2026.

IL22. Salmon Brook Restoration, Brookfield, MA

MassWildlife was awarded \$200,000 in ILF funds to restore a section of Salmon Brook located on their Quaboag Wildlife Management Area. The project includes removal of the Salmon Brook Dam, an unnamed rock dam downstream, and an undersized culvert. Data collection and initial design have been completed and the permitting process has begun. MassWildlife expects to implement the project in 2025.

IL23. Rough Meadows Restoration, Rowley, MA

Mass Audubon has proposed to use ILF funds to restore salt marsh on their Rough Meadows Wildlife Sanctuary. Staff from the ILF Program and Mass Audubon discussed the project with staff from the Massachusetts Department of Environmental Protection in 2023 and hope to submit permit applications for the project in 2024.

IV. Program Development Updates

Mitigation Project Selection - 2023

In 2023, the ILFP conducted targeted outreach within DFG's divisions and programs, to other state agencies, and to municipalities and non-governmental organizations to solicit projects that could specifically meet upcoming credit obligations. The ILFP developed a new framework for collaborating with DER and has started exploring this framework for a dam removal project in the Quabbin/Worcester Service Area. The ILFP decided not to issue a Request for Proposals this year following the Corps' recommendation to allow projects that are underway to make more

progress before accepting new projects. Some projects that were identified during targeted outreach were at an early stage of development and may be included in a future public notice.

Mitigation Project Selection - 2024

In 2024, the ILFP will continue to diversify its outreach and identification of priority restoration projects with particular focus on estuarine environments, where most impacts that have paid into the ILFP have occurred. The ILFP has had discussions with several state grant programs about partnering to solicit projects. The ILFP is also partnering with DER on an effort to identify and prioritize potential freshwater wetland restoration sites.

Standard Operating Procedures (SOPs) for the MA ILFP

In 2021, the ILFP developed SOPs for program administration that address management, financial, and ecological goals. The ILFP shared the draft SOP document with the Corps for review and comment in March 2022. The draft SOPs are part of an Internal Control Plan (ICP), which presents a comprehensive assessment of risks that could impede the achievement of the goals and objectives of the MA DFG ILFP and lays out a set of internal controls and best practices to avoid and minimize those risks. The ILFP SOPs were integrated as part of a DFG-wide ICP in July 2022. ILFP staff will continue to apply the SOPs, re-evaluate on an annual basis and update the SOPs as needed.

Instrument Updates and Amendments

In 2022, the ILFP began a re-evaluation of the 2014 ILFP Instrument and is developing recommendations for revisions. This work will lay the foundation for preparation and submittal to the Corps and IRT of a proposed 10-Year Instrument update in 2024.

Restoration Costs Analysis

DFG began a re-evaluation of restoration project costs, which will help inform potential changes in ILF mitigation credit fees as well as project selection and planning. This undertaking included the development of a process and guidance for compiling cost data as projects progress over time. An updated fee structure based on the results of this analysis will take effect in 2024.

V. DMF ILFP Project Updates

This section of the ILFP Annual Report provides an update on four mitigation projects that were undertaken by DMF prior to the 2014 DFG ILFP Instrument.

Project 1. Off Billington Street Dam Removal Project – Plymouth

As noted in the 2018 ILF Program Annual Report, this project was successfully completed. ILFP funds were used to vegetate the exposed stream banks once the impoundment behind the dam was drained. DFG submitted project monitoring reports and a request for release of credits to the Corps in December of 2021.

Project 2. Rough Meadows - Rowley

This ILF project was completed in 2018. In 2021, the Corps released final credits in the amount of 0.733 wetland credits for this project.

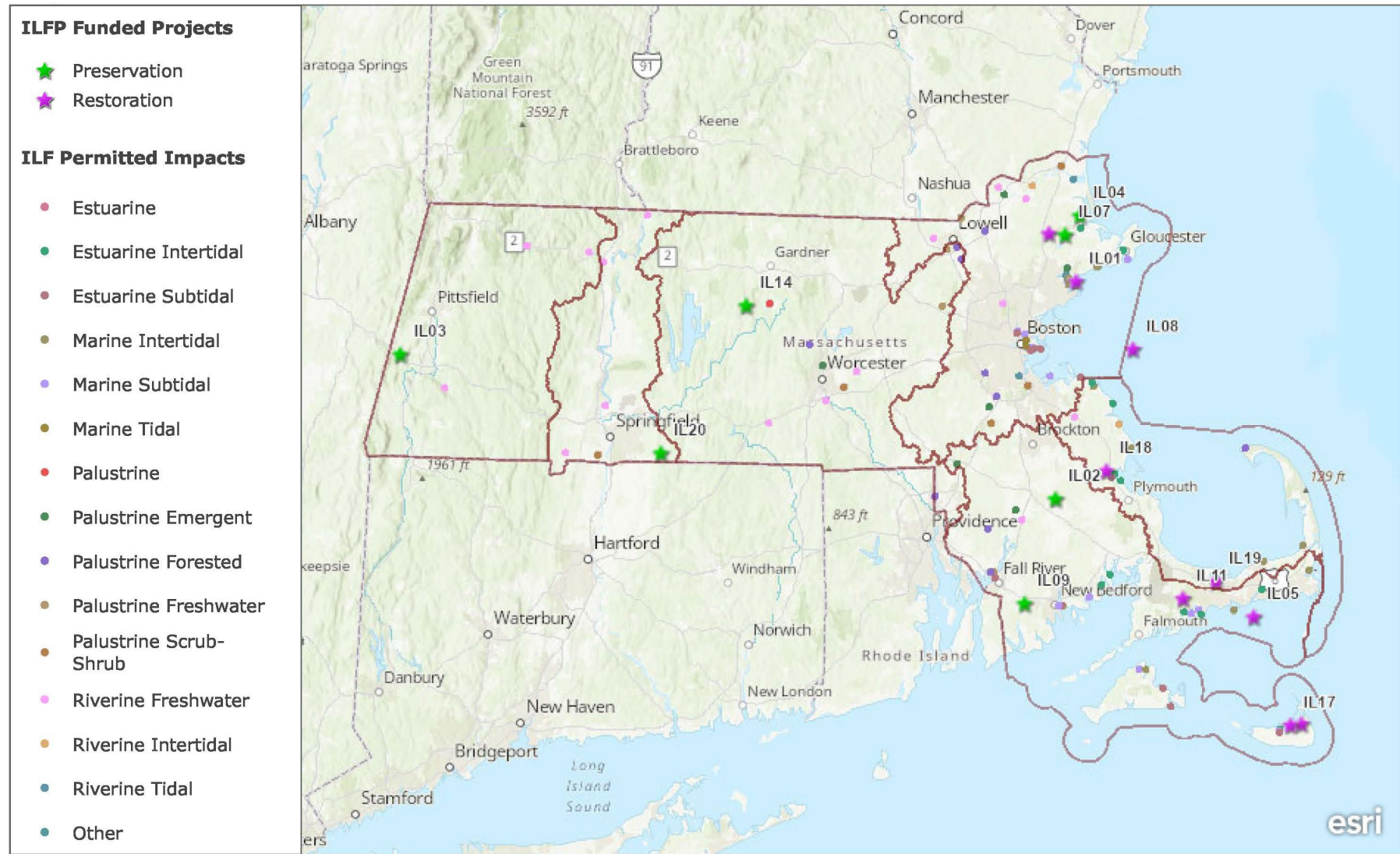
Project 3. Upper Great Marsh – Newbury

In 2018, the Corps released final credits in the amount of 3 wetland credits for this project.

Project 4. Draka Dam Fish Passage – Three Mile River, Taunton

This DMF diadromous fish passage project was successfully completed in 2019. The Corps released 25.5 stream credits for this project in December of 2021. The ILFP received a monitoring report and operations & maintenance plan in December of 2022 and has submitted these to USACE. A site inspection and final credit release will be completed in 2024 to close out the project.

Appendix A. ILFP Map – Service Area boundaries, locations of impacts for which ILF payments were made¹ and locations of approved ILFP mitigation projects²



¹Includes all ILF payments received by DFG from 5/23/14 – 12/31/2023.
²Three mitigation project proposals were selected for funding in 2023; sixteen mitigation project proposals were previously approved.

Appendix B. Complete Listing of ILF Payments Received and Mitigation Credits Sold

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
Berkshire-Taconic Service Area							
NAE-2014-01945	Tennessee Gas Pipeline Company	Tyringham	\$2,500.00	11/06/14	Riverine Freshwater	0.00	8.33
NAE-2015-01572	MassDOT-Highway Division	Shelburne	\$13,800.00	12/09/16	Riverine Freshwater	0.00	46.00
NAE-2020-00432	MassDOT-Highway Division	Charlemont	\$6,300.00	08/10/20	Riverine Freshwater	0.00	21.00
	Subtotal	Berkshire	\$22,600.00			0.00	75.33
Coastal Service Area_Central sub-area							
NAE-2006-03754	Town of Scituate	Scituate	\$99,820.00	09/08/15	Estuarine Intertidal	0.16	0.00
NAE-2016-01044	MassDOT-Highway Division	Norwell	\$38,400.00	12/09/16	Riverine Freshwater	0.00	64.00
NAE-2016-01044	MassDOT-Highway Division	Norwell	\$173,926.00	12/09/16	Palustrine Forested	0.28	0.00
NAE-2008-01239	Michael Solimando	Scituate	\$1,711.20	03/16/17	Marine Intertidal	0.00	0.00
NAE-2006-04281	Provincetown Airport Commission	Provincetown	\$269,777.81	08/01/17	Palustrine Forested	0.43	0.00
NAE-1995-00532	Cohasset Yacht Club	Cohasset	\$2,245.95	10/26/17	Marine Intertidal	0.00	0.00
NAE-2015-02882	Town of Dennis	Dennis	\$39,754.60	10/30/18	Marine Intertidal	0.06	0.00
NAE-2016-01575	MassDOT-Highway Division	Cohasset	\$4,705.80	05/07/19	Estuarine Intertidal	0.01	0.00
NAE-2018-02770	Town of Kingston	Kingston	\$228.16	03/15/21	Estuarine Intertidal	0.000367	0.00
NAE-2021-00399	Town of Duxbury	Duxbury	\$4,911.00 ¹	05/10/21	Marine Intertidal	0.008	0.00
NAE-2021-00677	Kurt Johnson	Kingston	\$513.36	05/28/21	Estuarine Intertidal	0.0008	0.00
NAE-2021-02389	Gary Lawrence	Kingston	\$727.26	2/9/2022	Estuarine subtidal	0.001	0.00
	Subtotal	Coastal_Central	\$636,721			0.964	64.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
Coastal Service Area_North sub-area							
NAE-2011-00106	Global Companies, LLC	Chelsea	\$7,500.76	09/11/14	Marine Subtidal	0.01	0.00
NAE-2011-00106	Global Companies, LLC	Chelsea	\$11,764.24	09/11/14	Marine Intertidal	0.02	0.00
NAE-2014-02637	Charles Loutrel	Marblehead	\$2,623.84	05/05/15	Marine Subtidal	0.00	0.00
NAE-2014-00114	Algonquin Gas Transmission, LLC	Salem	\$151,554.00	06/24/15	Marine Subtidal	0.24	0.00
NAE-1999-03185	MA Dept. of Conservation and Recreation	Canton	\$3,000.00	10/14/15	Palustrine Freshwater	0.01	0.00
NAE-2005-01095	City of Salem	Salem	\$2,852.00	01/11/16	Marine Intertidal	0.01	0.00
NAE-2004-00525	Nicholas Iselin for Lend Lease Development. Inc.	East Boston	\$5,040.00	04/27/16	Marine Tidal	0.01	0.00
NAE-2015-01169	Lisa Martinez and Chris Williams	Manchester	\$812.00	06/28/16	Estuarine Intertidal	0.00	0.00
NAE-2015-00875	New England Power Company/ National Grid	Andover, Dracut, Tewksbury	\$227,009.00	08/05/16	Palustrine Freshwater	0.37	0.00
NAE-2016-01170	Economic Development and Industrial Corp. of Boston	Boston	\$18,623.00	08/19/16	Marine Subtidal	0.03	0.00
NAE-2013-01026	Wynn MA LLC	Everett	\$48,769.20	12/14/16	Marine Subtidal	0.08	0.00
NAE-2002-02261	Rustom Cowasjee	Boston	\$106,950.00	01/25/17	Marine Tidal	0.17	0.00
NAE-2009-00539	MassDOT-Highway Division	Amesbury, Salisbury	\$50,880.00	02/01/17	Palustrine Freshwater	0.08	0.00
NAE-2016-02158	Arunas Martinonis	Gloucester	\$4,705.00	05/30/17	Marine Subtidal	0.01	0.00
NAE-2017-00101	Massachusetts Port Authority	East Boston	\$4,939.00	06/21/17	Marine Subtidal	0.01	0.00
NAE-2011-001084	Kai Juel, III	Manchester	\$4,791.36	08/03/17	Marine Intertidal	0.01	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2009-001173	Martin Hahn and David Crosby	Manchester	\$5,147.86	08/03/17	Marine Intertidal	0.01	0.00
NAE-2012-00558	Manchester Marine Corporation	Manchester	\$49,339.60	08/14/17	Marine Intertidal	0.08	0.00
NAE-2009-00146	Peter Creighton	Manchester	\$7,557.80	08/14/17	Marine Intertidal	0.01	0.00
NAE-1994-02959	Randy Wood	Manchester	\$1,611.38	08/14/17	Marine Intertidal	0.00	0.00
NAE-2012-00557	Sunset Rock, LLC	Manchester	\$24,997.78	08/14/17	Marine Intertidal	0.04	0.00
NAE-2013-02022	Ledyard McFadden	Manchester	\$2,452.72	08/17/17	Marine Intertidal	0.00	0.00
NAE-2010-02461	Massachusetts Bay Transportation Authority	Boston	\$3,900.00	08/25/17	Riverine Tidal	0.01	0.00
NAE-2013-02187	Eversource Energy	Walpole, Holbrook	\$9,317.00	10/04/17	Palustrine Forested	0.02	0.00
NAE-2013-02187	Eversource Energy	Walpole, Holbrook	\$4,813.00	10/04/17	Palustrine Emergent	0.01	
NAE-2017-00669	MassDOT-Highway Division	Haverhill	\$18,180.00	12/13/17	Riverine Freshwater	0.00	30.30
NAE-2002-02261	Tyler Deaton, 140 Northern Ave LLC	Boston	\$36,134.00	12/20/17	Marine Intertidal	0.06	0.00
NAE-2002-02261	Tyler Deaton, 140 Northern Ave LLC	Boston	\$108,404.00	12/20/17	Marine Intertidal	0.17	0.00
NAE-2005-01170	Beverly Port Marina	Beverly	\$1,426.00	01/22/18	Marine Intertidal	0.00	0.00
NAE-2017-01145	Esty Park Trust	Groveland	\$2,440.00	02/08/18	Riverine Freshwater	0.00	4.06
NAE-2012-00440	Massport	Boston	\$93,963.00	05/08/18	Estuarine Subtidal	0.15	0.00
NAE-2012-00440	Massport	Boston	\$96,255.00	05/08/18	Estuarine Intertidal	0.16	0.00
NAE-2013-02187	Eversource Energy	Walpole, Holbrook	\$427.80	05/14/18	Palustrine Scrub-Shrub	0.00	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2016-00503	Nstar Electric dba Eversource Energy	Needham	\$28,132.00	06/04/18	Palustrine Forested	0.05	0.00
NAE-2009-00539	MassDOT-Highway Division	Amesbury, Salisbury	\$3,351.00	06/15/18	Palustrine Scrub-Shrub	0.01	0.00
NAE-2013-01690	MassDOT-Highway Division	Haverhill	\$14,699.00	06/15/18	Palustrine Emergent	0.02	0.00
NAE-2016-01163	Harbor Electric Energy Company	South Boston, Winthrop	\$594,706.00	06/20/18	Estuarine Subtidal	0.96	0.00
NAE-2017-02473	John Bruni	Ipswich	\$741.52	08/09/18	Estuarine Intertidal	0.00	0.00
NAE-2018-01255	Twig Rush Dock Assoc., Craig Gould	West Newbury	\$1,026.72	08/14/18	Riverine Intertidal	0.00	0.00
NAE-2017-00100	Cronin Holdings LP	Boston	\$7,173.00	09/10/18	Marine Subtidal	0.01	0.00
NAE-2014-01038	Norwood Airport Commission	Norwood	\$122,636.00	10/03/18	Palustrine Emergent	0.20	0.00
NAE-2014-00930	Town of Winchester	Winchester	\$15,000.00	10/12/18	Riverine Freshwater	0.00	25.00
NAE-2010-02461	MBTA	Milton	\$2,000.00	10/15/18	Riverine Tidal	0.00	3.30
NAE-2016-01969	Town of Chelmsford	Chelmsford	\$111,000.00	10/25/18	Riverine Freshwater	0.00	185.00
NAE-2011-00750	Brewer Hawthorne	Salem	\$12,260.10 ¹	10/24/19	Marine Intertidal	0.02	0.00
NAE-2015-02118	MBTA	Boston	\$198,214	01/18/19	Estuarine Intertidal	0.32	0.00
NAE-2015-02118	MBTA	Boston	\$735,816	01/18/19	Estuarine Subtidal	1.18	0.00
NAE-2016-01163	Harbor Electric Energy Company	Boston	\$31,444.00	04/22/19	Estuarine Subtidal	0.05	0.00
NAE-2016-02678	City of Beverly	Beverly	\$2,500.50	01/14/19	Palustrine Emergent	0.00	0.00
NAE-2017-01385	Jack Tatelman	Marblehead	\$9,625.50	06/24/19	Marine Intertidal	0.02	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2017-02272	Tuck Point condominium trust	Beverly	\$1,497.30	10/24/19	Marine Subtidal	0.00	0.00
NAE-2017-02272	Tuck Point condominium trust	Beverly	\$855.60	10/24/19	Marine Intertidal	0.00	0.00
NAE-2018-02229	Michael Settles	Beverly	\$1,140.00	01/14/19	Riverine Tidal	0.00	0.00
NAE-2018-02240	American Yacht Club, c/o Ron Barrett	Newburyport	\$299.46	04/02/19	Riverine Tidal	0.00	0.00
NAE-2019-00897	Heidi Herlihy	Marblehead	\$4,563.20	11/12/19	Marine Subtidal	0.01	0.00
NAE-2016-02013	Town of Andover	Andover	\$73,004.00	03/04/20	Palustrine Forested	0.12	0.00
NAE-2017-00159	City of Quincy	Quincy	\$8,413.40	05/19/20	Marine Subtidal	0.01	0.00
NAE-2009-00716	MassDOT	Dedham, Westwood	\$42,765.74	3/24/21	Palustrine Forested	0.069	0.00
NAE-2013-01925	MBTA	Gloucester	\$228,160.00	01/04/21	Estuarine intertidal	0.377	0.00
NAE-2016-1163-A	Harbor Electric Energy Company	Boston	\$199,240.72	8/24/22	Estuarine subtidal	0.32	0.00
NAE-2013-01925	MBTA	Gloucester	\$19,108.40	10/12/22	Estuarine intertidal	0.031	0.00
NAE-2021-00396	MassDOT	Hull	\$299.46	11/30/22	Estuarine subtidal	0.00048	0.00
NAE-2019-01014	Edge Cable Holdings USA, LLC	Lynn	\$174,970.20	1/31/23	Marine subtidal	0.282	0.00
NAE-2012-01910	Joseph Hadley and Anne Marie Reilly	Gloucester	\$7,301.12	3/1/23	Marine subtidal	0.012	0.00
NAE-2012-01910	Joseph Hadley and Anne Marie Reilly	Gloucester	\$2,295.86	3/1/23	Marine intertidal	0.003696	0.00
NAE-2019-02773	Merrimack Valley RTA	Haverhill	\$66,465.00	3/1/23	Riverine tidal	0.107	0.00
NAE-2017-00232	CITGO Petroleum Corporation	Braintree	\$134,044.00	8/2/2023	Marine intertidal	0.216	0.00
NAE-2020-02653	Fugere LLC	Haverhill	\$16,600.00	12/20/2023	Riverine Freshwater	0.000	27.67
	Subtotal	Coastal_North	\$3,989,529			6.157	275.33

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
Coastal Service Area_South sub-area							
NAE-2014-01583	Mary C. Kariotis	Osterville	\$1,408.00	11/05/15	Marine Subtidal	0.00	0.00
NAE-2002-00169	Great Island Homeowner's Assoc. Inc.	West Yarmouth	\$570.40	11/08/16	Marine Intertidal	0.00	0.00
NAE-2015-00827	US Army Corps of Engineers	Taunton	\$260,890.00	12/21/16	Palustrine Emergent	0.42	0.00
NAE-2014-01348	Robert Benedetto	Cotuit	\$1,369.00	01/25/17	Estuarine Intertidal	0.00	0.00
NAE-2014-01310	Town of Marion	Marion	\$33,539.00	06/29/17	Estuarine Intertidal	0.05	0.00
NAE-2008-03185	MassDOT-Highway Division	Somerset, Fall River	\$664,059.00	12/21/17	Palustrine	1.07	0.00
NAE-2014-01547	DFG/Town of Tisbury	Tisbury	\$9,154.92	01/29/18	Marine Subtidal	0.01	0.00
NAE-2014-01547	DFG/Town of Tisbury	Tisbury	\$1,426.00	01/29/18	Marine Intertidal	0.00	0.00
NAE-2017-02648	Jennifer and Edmund Murphy	Osterville	\$2,224.56	03/29/18	Estuarine Intertidal	0.00	0.00
NAE-2017-01115	EM Crosby Boatworks	Osterville	\$4,099.00	05/14/18	Marine Subtidal	0.01	0.00
NAE-2017-01115	EM Crosby Boatworks	Osterville	\$4,099.00	05/14/18	Marine Intertidal	0.01	0.00
NAE-2017-01452	New England Power d/b/a National Grid	Somerset MA	\$105,253.06	05/23/18	Palustrine Scrub-Shrub	0.17	0.00
NAE-2017-01452	New England Power d/b/a National Grid	Somerset MA	\$109,461.19	05/23/18	Palustrine Forested	0.18	0.00
NAE-2009-02719	Fairhaven Shipyard Companies, Inc.	Fairhaven	\$158,785.00	06/04/18	Estuarine Subtidal	0.25	0.00
NAE-2018-01440	Farm Lane Assoc.	South Dennis	\$684.48	10/03/18	Estuarine Intertidal	0.00	0.00
NAE-2017-00160	Brendan Magauran	Orleans	\$2,010.66	08/26/19	Marine Intertidal	0.00	0.00
NAE-2017-01613	Cow Bay Corporation	Edgartown	\$399.28	04/09/19	Estuarine Intertidal	0.00	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2017-01613	Cow Bay Corporation	Edgartown	\$2,481.24	04/09/19	Estuarine Subtidal	0.00	0.00
NAE-2018-02412	Town of Plainville DPW	Plainville	\$2,695	02/06/19	Palustrine Emergent	0.00	0.00
NAE-2018-02575	US Coast Guard CEU Providence	Nantucket	\$27,771.35	08/19/19	Estuarine Intertidal	0.04	0.00
NAE-2018-03065	Stephen and Carol Milligan	Marion	\$171.12	04/17/19	Estuarine Intertidal	0.00	0.00
NAE-2019-00272	Town of Plymouth	Plymouth	\$4,278.00	10/24/19	Estuarine Intertidal	0.01	0.00
NAE-2019-01934	Terje Tonnessen Revocable Trust	Fairhaven	\$4,470.51	10/24/19	Marine Intertidal	0.01	0.00
NAE-2016-02034	13 Shipyard Lane LLC	Mattapoisett	\$1,711.20	11/21/19	Marine Subtidal	0.00	0.00
NAE-2019-02413	NIR Retail LLC	Nantucket	\$16,541.60	09/8/20	Marine Subtidal	0.03	0.00
NAE-2017-02472	MA Office of Fishing & Boating Access	Eastham	\$5,005.00	01/31/20	Marine Intertidal	0.0081	0.00
NAE-2019-00359	MassDOT - Highway Division	Taunton	\$336,718.21	08/31/20	Palustrine Forested, Riverine	0.4078	139
NAE-2010-00684	MA DCR	New Bedford	\$869.86	10/18/21	Marine Subtidal	0.001	0.00
NAE-2021-02779	MassDOT	Fall River	\$27,935.34	3/22/22	Estuarine Subtidal	0.04	0.00
NAE-2015-00386	Town of Nantucket	Nantucket	\$23,735.77	7/30/22	Estuarine Subtidal	0.038	0.00
NAE-2018-02553	Town of Edgartown	Edgartown	\$11,964.14	10/5/22	Estuarine Subtidal	0.019	0.00
NAE-2021-01206	Joseph Baptista	Dighton	\$34,081.00	10/19/22	Palustrine Forested	0.055	0.00
NAE-2019-01888	Tisbury Marine Terminal	Tisbury	\$147,434.14	12/8/22	Marine Subtidal	0.237	0.00
NAE-2019-01888	Tisbury Marine Terminal	Tisbury	\$108,860.84	12/8/22	Marine Intertidal	0.175	0.00
NAE-2022-01710	Nordic Fisheries, Inc.	New Bedford	\$243,846.00	4/12/23	Estuarine subtidal	0.393	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2023-00525	Salvatore Santolucito	Wareham	\$713.00	6/28/23	Marine subtidal	0.001	0.00
	Subtotal	Coastal_South	\$2,360,715.97			3.655	139
Connecticut River Service Area							
NAE-2014-01772	Tennessee Gas Pipeline Company	Southwick	\$12,500.00	10/24/14	Riverine Freshwater	0.00	41.66
NAE-2013-01364	Exxonmobil Corp.	Greenfield	\$9,000.00	12/09/14	Riverine Freshwater	0.00	30.00
NAE-2011-01510	MassDOT-Highway Division	Chicopee	\$4,530.00	05/08/19	Riverine Freshwater	0.00	15.10
NAE-2018-00162	Tennessee Gas Pipeline Company, LLC	Agawam	\$271,653.19	01/15/20	Palustrine Forested, Scrub-shrub	0.454	0.00
NAE-2015-00422	MassDOT	Northfield	\$36,000	10/20/21	Riverine Freshwater	0.00	120.00
	Subtotal	Connecticut River	\$333,683.19			0.454	206.76
Quabbin-Worcester Service Area							
NAE-2005-03968	John D. Noblin/ Ledge Hill Development Company LLC	North Attleboro	\$55,235.79	01/13/17	Palustrine Forested	0.09	0.00
NAE-2016-00820	James White	Concord	\$16,810.00	04/12/17	Palustrine Freshwater	0.03	0.00
NAE-2016-02614	MassDOT-Highway Division	Northborough, Shrewsbury	\$60,600.00	05/30/17	Riverine Freshwater	0.00	202.00
NAE-2016-00502	New England Power d/b/a National Grid	Grafton	\$8,128.13	04/25/18	Palustrine Scrub-Shrub	0.01	0.00
NAE-2016-00502	New England Power d/b/a National Grid	Grafton	\$5,231.13	04/25/18	Palustrine Forested	0.01	0.00
NAE-2018-00850	Clealand Blair, Jackson wood Investments, LLC	Holden	\$16,203.32	07/15/19	Palustrine Forested	0.03	0.00
NAE-2019-01032	National Grid	Lowell	\$5,415.45	10/24/19	Palustrine Forested	0.01	0.00
NAE-2019-01730	MassDOT-Highway Division	Hubbardston	\$64,435.00	10/24/19	Palustrine	0.11	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2021-00312	National Grid	Billerica	\$17,021.77	02/11/21	Palustrine Forested	0.028	0.00
NAE-2021-02102	Bluewater Bay Development, LLC	Charlton	\$106,599.72	4/20/22	Palustrine	0.178	0.00
NAE-2021-02102	Bluewater Bay Development, LLC	Charlton	\$15,000.00	4/20/22	Riverine	0.00	50
NAE-2017-03061	Boston Gas Company dba National Grid	Lowell	\$69,378.38	4/20/22	Palustrine	0.116	0.00
NAE-2021-02091	Town of Millbury	Millbury	\$64,723.22	5/23/22	Palustrine Forested	0.108	0.00
NAE-2021-02091	Town of Millbury	Millbury	\$69,000.00	5/23/22	Riverine	0.00	230
NAE-2018-00633	Banner Worcester Storage, LLC	Worcester	\$33,638.50	12/14/22	Palustrine Scrub-Shrub	0.056	0.00
NAE-2018-00633	Banner Worcester Storage, LLC	Worcester	\$13,935.95	12/14/22	Palustrine Emergent	0.023	0.00
NAE-2022-00174	U.S. Army	Lancaster	\$104,938.39	5/2/2023	Palustrine emergent	0.175	0.00
NAE-2021-02102	Bluewater Bay Development, LLC	Charlton	\$219.68	8/7/23	Palustrine scrub shrub	0.000367	0
NAE-2021-02102	Bluewater Bay Development, LLC	Charlton	\$3,000.00	8/7/23	Riverine	0	10
	Subtotal	Quabbin-Worcester	\$729,514.32			0.971	492.00
TOTAL ILFP REVENUE*: \$8,072,764						ILFP CREDITS SOLD: 12.201	1,252
<i>*From ILFP establishment in May 2014 through December 31, 2023</i>						Wetland	Stream