



STATE OF MAINE
DEPARTMENT OF
MARINE RESOURCES
MARINE RESOURCES LABORATORY
P.O. BOX 8, 194 MCKOWN POINT RD
W. BOOTHBAY HARBOR, MAINE 04575-0008

PATRICK C. KELIHER
COMMISSIONER

July 26, 2024

Atlantic Coastal Cooperative Statistics Program
1050 N. Highland St. Ste. 200 A-N
Arlington, VA 22201

Dear ACCSP:

We are pleased to submit the proposal titled “FY25: Managing 100% Lobster Harvester Reporting in Maine” for your consideration. This is a maintenance proposal which has not changed in the scope of work. The continuation of this project will allow the Maine Department of Marine Resources (MEDMR) to continue its compliance with ASMFC’s Addendum 26 requirement that the MEDMR move from 10% lobster reporting to 100% electronic lobster reporting. The MEDMR implemented 100% lobster reporting starting January 1, 2023; which is a full year ahead of the addendum’s requirement to be fully implemented by January 1, 2024. The MEDMR felt it was important to implement as early as possible to comply with and track the pending vertical line reductions resulting from the new regulations to reduce the risk of entanglement to right whales through the Atlantic Large Whale Take Reduction Plan. Collecting as much information on these gear configurations during the recent six year pause of these regulations is imperative to accurately document the effort and vertical line use in the lobster fishery. The MEDMR’s initial goal was to implement 100% reporting in 2021; however, funding shortfalls prevented this from occurring. Continued funding of this proposal would allow MEDMR to continue the implementation.

The MEDMR does not currently have the funds needed to continually support and staff the program at the 100% reporting level. Overall, MEDMR created nine new positions that have been filled and vital to the successful roll out of 100% electronic lobster harvester reporting. Not all nine positions are included in our funding request as other one-time funding sources have been secured to alleviate the burden of our request to ACCSP. Please view all graphs in color. This proposal addresses the following 2025 ranking criteria: catch and effort, data delivery plan, regional impact, funding transition plan, in kind contribution, improvement in data quality and timeliness, impact on stock assessment and properly prepared.

During the pre-proposal review, MEDMR did not receive any questions or feedback to address. For a summary of the proposal for ranking purposes, please see page 34. Please contact Robert Watts at the MEDMR with any questions. Thank you for your consideration of this proposal.

Sincerely,

Robert B. Watts II
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Atlantic Coastal Cooperative Statistics Program
1050 N. Highland Street. Suite. 200A-N
Arlington, VA 22201

FY24: Managing 100% Lobster Harvester Reporting in Maine

Total Cost: \$335,537.01

Submitted by:

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Applicant Name: Maine Department of Marine Resources (MEDMR)

Principal Investigator: Robert Watts, Marine Resource Scientist

Project Title: FY24: Managing 100% Lobster Harvester Reporting in Maine

Project Type: Maintenance Project

Requested Award Amount (without the NOAA administration fee): \$335,537.01

Requested Award Period: One year after receipt of funds

Objectives:

The objective of this proposal is to comply with Addendum XXVI (http://www.asmfc.org/uploads/file/5a9438ccAmLobsterAddXXVI_JonahCrabAddIII_Feb2018.pdf) of ASMFC's (Atlantic States Marine Fisheries Commission) American lobster Fisheries Management Plan (FMP) which required MEDMR increase the percentage of trip level landings information MEDMR collects from commercial lobster harvesters from the current "optimized draw method" (approximately 380 harvesters) to 100% (approximately 5,400 harvesters). Starting in 2019, ASMFC Addendum XXVI required MEDMR move to an "optimized draw" selection method to choose the lobster harvesters required to report for the following year. The "optimized draw" selects different percentages of license types and active/non-active harvesters based a statistical analysis of the variability of each license class using a combination of dealer data and harvester reported data. In the past MEDMR would select approximately 700 to 800 harvesters per year, now around 350 to 400 harvesters are selected with the idea that the selected harvesters would provide the same number of trip records (See Figure 3). Addendum XXVI requires 100% reporting (electronic reporting is recommended but not mandatory) by January 2024 in addition to other new required fields that became mandatory in January 2021. MEDMR started collecting total endlines and 10 min square data at the trip level in 2020 even though ASMFC moved these requirements back to 2021. Starting January 1, 2023, MEDMR required 100% electronic lobster harvester reporting. This requirement has caused MEDMR to increase landings and licensing staff by a total of 9 positions to effectively manage, monitor and audit what was a 1000% increase in the number of trip level reports the MEDMR receives from the lobster industry on an annual basis.

National Marine Fisheries Service (NMFS) was in the process of finalizing new rules to protect North Atlantic right whales as part of the Atlantic Large Whale Take Reduction Plan (ALWTRP) for the Northeast lobster fishery. The implementation of these plans have been pushed back as part of a six year moratorium. This will allow states the ability to collect vital information such as end line counts and gear configuration with a spatial component to better map out where actual fishing activity are occurring. The MEDMR required trackers be placed on all federally permitted vessels starting December, 2023. ASMFC is requiring 100% reporting in the lobster fishery by 2024. GARFO started requiring all federal lobster permits submit eVTRs on April 1, 2024. The AWTRT has recommended on more than one occasion that fisheries move to 100% reporting as soon as possible. MEDMR strongly agrees with this recommendation because our ability to achieve and monitor the consensus goals of the AWTRT is tied to the availability of these data in the short term. MEDMR believes that the January 2023 date was necessary to meet the data guidelines outlined in Addendum 26, the needs of the AWTRT, and work out any data collection and data management issues well before the 2024 deadline. Additionally, MEDMR was interested in moving the timeframe for 100% electronic lobster harvester reporting up to as early as 2023 to track effort and vertical line use in support of pending new regulations. The FY20 proposal intended MEDMR to require 100% reporting starting in January 2021; however, lack of funding has required this timeframe be pushed back to 2023. Similarly, with the 2023 timeframe the MEDMR does not

have the funding to continuously fund all the positions necessary to effectively administer, collect, audit and distribute the data required in Addendum XXVI. If the MEDMR are not able to secure adequate funding, the continued implementation of the 100% reporting would need to be revisited. **The MEDMR has self-funded the creation of a new offline mobile application for both iOS® and Android® platforms through dedicated technology funds. This program was built to accept reports from all fisheries and meet NMFS electronic reporting requirements. This new program has dynamic entry pages and be completely table driven allowing the entry pages to display more concise field descriptions based on species and gears fished. There are built in data validations, reoccurring selections appear at the top of drop down lists and basic end user analytics.** The MEDMR released this program industry wide in the fall of 2021. With the release of this program, the MEDMR has required electronic reporting in multiple fisheries if there's a data management need. **The primary tasks will be electronic reporting software training, regulation compliance, data audits, data entry and general outreach. Staff will also focus on harvester outreach to help industry understand the importance of the accurate and timely reporting. Electronic reporting are required for commercial lobster harvesters and heavily pushed for those that still report other fisheries on paper. The focus on expansion of electronic reporting will require the MEDMR to spend a significant amount of time on outreach, explaining the reporting system to harvesters and troubleshooting any issues that might arise.** Currently, MEDMR only requires electronic reporting in our Atlantic herring, scallop (inshore state fishery), halibut (inshore state fishery), lobster and Atlantic menhaden fisheries. There are currently no plans to mandate electronic reporting for other fisheries, as this is not an ACCSP requirement.

Need:

Maine currently requires harvesters from 14 fisheries to report trip level landings on a variety of timelines (daily, weekly or monthly). A total of five fisheries require mandatory electronic harvester reporting (lobster, scallop, menhaden, herring and halibut). Two quota monitored fisheries (Atlantic herring and Atlantic menhaden) have daily reporting requirements during their "open quota monitored seasons (i.e. directed and episodic fishing season for menhaden) and two other fisheries (halibut and scallop) and trip level reporting due weekly during their inshore state seasons. **When the MEDMR implemented 100% lobster reporting, the number of new harvesters (see Table 1) required significant resources in outreach, tracking compliance, entering and auditing a ~500% increase in the number of reports received from approximately 60K to ~300K. In 2022, approximately 5,643 lobster harvesters were licensed to fish in Maine. Of those 5,643, MEDMR selected 474 to report trip level information. Now with 100% reporting all 5,643 will be required to report. Of the 5,643 harvesters, MEDMR dealer reports indicate 3,960 harvesters sold at least once to a licensed dealer. All 5,643 license holders regardless of activity will be required to report for each month they hold a current license. Moving to 100% reporting follows the MEDMR's change in how harvesters were selected. During the 2019 season the MEDMR move to an "optimized draw" selection method to choose the lobster harvesters required to report for the following year. The "optimized draw" selects different percentages of license types and active/non-active harvesters based a statistical analysis of the variability of each license class using a of combination of dealer data and harvester reported data. In the past MEDMR would select approximately 700 to 800 harvesters per year, in 2022 which was the last year of the optimized draw 474 were selected with the idea that the selected harvesters would provide the same number of trip records (See Figure 3) as the previous 10%. The number of individual lobster harvesters required to report electronically increased to just under 5,700 when 100% lobster harvester reporting became mandatory in 2023.**

Of the 5,372 licensed harvesters, ~1,300 (24%) of them as of April 1, 2024, are required to report to National Marine Fisheries Service (NMFS) since they possess a federal lobster permit. **Regardless of their federal permit status, MEDMR will work with all harvesters to ensure all landings are reported either to MEDMR or NMFS since the collected data will benefit all partners. MEDMR staff will also audit all records with a**

state landed of Maine but defer any federal data changes to NMFS. The rollout of federal reporting has not been smooth and met with many challenges. Data flows from Bluefin to ACCSP and GARFO have had some challenges that all parties have been working on to clear up. The biggest challenge has been “re-training” the 1,300 “new” federal harvesters that last year reported using the “state only form”. The differences in form and terminology have caused an increase in the number of phone calls MEDMR staff have received since April 1. Our two Scientist I and two Specialist II’s estimate that two months into the GARFO roll out that they are still spending at least 75% of their work week answering questions from federal harvesters about field names and troubleshooting data flow issues that are sporadic but ongoing. MEDMR is continuing to look for ways to streamline these reporting issues and has been in discussions with GARFO on ways to simplify the reporting process within the lobster industry.

Table 1: Increase in Individual Harvester Reporting Expected in Maine

Moving from 10% to 100% Lobster Reporting							
Year	Total Trips Entered	Lobster Only Entered	10% Active Lobster Harvesters	100% Active Lobster Harvesters	100% Lobster Harvesters	Lobster Trips From Dealer Reoprts	Lobster Harvester Reports Expected if 100% Required
2015	54,373	29,306	532	4,406	6,014	270,324	282,759
2016	57,871	30,762	566	4,504	6,009	293,919	307,439
2017	58,712	29,551	535	4,485	5,997	276,754	289,485
2018	59,082	26,655	543	4,391	5,925	264,094	276,242
2019	45,858	17,173	276	4,336	5,834	258,088	269,960
2020	44,074	17,501	297	4,063	5,773	220,608	230,756
2021	55,702	23,355	367	4,160	5,763	255,415	267,164
2022	43,636	20,250	308	3,960	5,643	211,178	220,892
2023*	273,009	242,116		4,116	5,372	220,895	231,056
*2023 data are preliminary and subject to change without notice.							
100% active license based on dealer reported data from 2015 - 2022							
100% active license count for 2023 based on harvesters that reported as of 5/24/2024							
Harvester counts are individual harvesters. Many harvesters have multiple licenses that are tracked seperately.							
Expected reports are calculated from reports received by harvesters and extraoplated based on reports received by dealers.							

*Increase in the number of harvesters and reports expected when MEDMR implements 100% lobster harvester reporting.

In 2016 MEDMR converted to a new online licensing and landings system, called Maine LEEDS (**L**icensing **E**nforcement and **E**nvironmental **D**ata **S**ystem). Using this system, harvesters and dealers are able to:

- Renew a license you previously held
- Apply for a new license you’ve never held before
- Order tags (for certain licenses)
- Reprint your license
- Upgrade a license (if applicable)
- Pay administrative fees
- Report landings
- Check reporting compliance status
- Upload documents to the department
- Change your password to the system

This web application has been an extremely useful tool that has allowed for more “self-service” for harvesters and dealers, has improve customer satisfaction and increase MEDMR staff efficiency. The Landings Program now utilizes this LEEDS system to send compliance emails to industry informing them of what reports are delinquent. Harvesters and dealers also have the ability to login to the system and view what reports are missing

as well. Overall this program has saved the MEDMR thousands of dollars in mailing cost as many of our correspondence have been sent via email as opposed to mail when appropriate. The process of informing harvesters that they have a license with reporting requirements has been automated and each harvester that purchases a license for the first time with reporting requirements are provided a notice included in their license packet to streamline our notification process. **In late spring 2018, MEDMR started allowing harvesters to enter their data through the LEEDS system and in 2021 released the VESL application to a group of test harvesters. Since the MEDMR provided harvesters an electronic reporting option, the number of harvesters utilizing an electronic reporting option has increased from 85 in 2018 to almost 1,300 harvesters in 2022. At the time of writing this proposal, just under 4,750 harvesters have reported electronically in 2023. Since 2018, the percentage of electronic reports has increased from just over 1% to 43% in 2022 (and 94% in 2023) (Figure 1 – view in color and Table 2 for electronic reporting breakdown).** Having industry enter their own information also saves staff time because paper reports do not need to be opened or processed through the mail, scanned into our LEEDS system or entered by hand. Staff have spent significant time training and creating outreach material (videos, electronic user guides, etc.) and communicating directly with industry. The shift to electronic reporting has caused staff to focus more of their time on data audits and outreach with industry. While MEDMR recommends industry utilize Maine LEEDS (state reporting only) or VESL (GARFO and ME state only reporting), we do not require users to use these two programs. We have users that have elected to utilize Fish Online (FOL), eTRIPS and other reporting options to fulfill their state and federal combo reporting requirements.

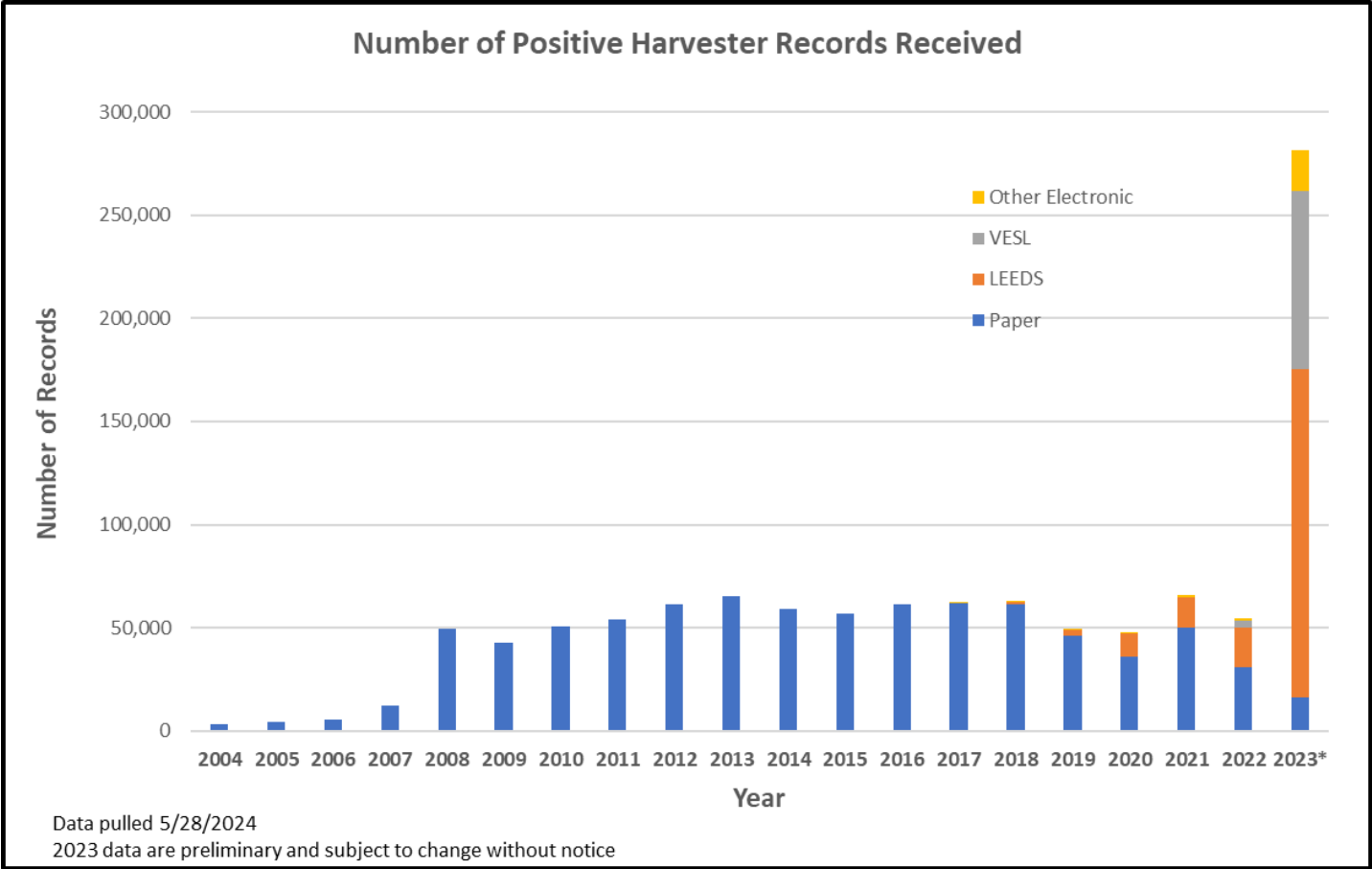


Figure 1: Number of Positive Trip Records Entered by MEDMR Staff and Industry into MARVIN and SAFIS

MEDMR Harvester Reported Data Trends (Data received through 5-28-2024)										
		Electronic Reports								
		LEEDS		VESL		Other Programs				
Year	Paper Reports	# Trips Reported	# Users	# Trips Reported	# Users	# Trips Reported	# Users	Total Electronic	Total Reports	% Electronic
2020	36,014	11,122	603	0	0	234	6	11,356	47,370	24%
2021*	50,114	14,912	764	352	15	931	15	16,195	66,309	24%
2022	31,038	18,946	1,240	3,297	170	1,653	92	23,896	54,934	43%
2023**	16,081	159,394	3,071	86,152	1,428	19,706	249	265,252	281,333	94%
Paper reports are entered directly into MEDMR's MARVIN database by MEDMR staff LEEDS is MEDMR's web based online reporting application that feeds directly to our MARVIN database. VESL data numbers include state only and GARFO trips *2021 was pilot year for roll out of VESL in Maine **2023 is the first year of 100% lobster reporting for MEDMR (approx 5,800 harvesters) MEDMR currently requires lobster, menhaden, Atlantic herring, Atlantic halibut and scallop to report electronically. Number LEEDS and VESL users could overlap and be counted more than once. Other Programs are mostly Fish Online and eTrips										

Table 2: Breakdown of trip reports entered by Maine harvesters between 2020 and 2023 (to date)

MEDMR currently requires (with some potential exemptions based on to be determined criteria) 100% electronic harvester reporting for lobster, herring, halibut, scallop and menhaden. Reliable high-speed internet access is not available in certain parts of the state which prohibits full 100% electronic reporting. The goal is to get as close to that as possible. The addendum allows until January 1, 2024 to meet this requirement. The MEDMR has taken a strict approach to allowing harvesters under certain circumstances to report on paper. **Scallop, halibut, herring and menhaden are quota monitored species that MEDMR has identified as benefiting from requiring state only harvesters to report electronically. Starting in 2020 all herring and menhaden harvesters were required to report electronically through either Maine LEEDS or some federally accepted reporting application during the active harvest season. This requirement replaced the email system MEDMR relied upon the past few seasons to monitor quota. Requiring daily electronic reporting will save the harvesters from emailing and then filling out complete harvester reports at the end of the week/month. Starting in 2022, the MEDMR required trip level electronic reporting due weekly for scallop and halibut. The offline mobile application MEDMR had Bluefin Data LLC build through its own funds has allowed harvesters with multiple reporting fisheries the ability to use one program to fulfill all their requirements whether they are state only or federal. Of the 1.331 million trips for 2023 in the data warehouse, 43% of them were landed in Maine which exceeds any other state (Figure 2 – view in color). This figure includes both dealer and harvester records. These records were submitted by both “state-only” harvesters (those that only report to MEDMR) as well as federal harvesters (those that report to fulfill both NMFS and MEDMR reporting requirements). Because all state licensed harvesters are required to report to the MEDMR regardless if they have federal reporting requirements or not, MEDMR works with NMFS to collect data from federally permitted harvesters so they do not need to double report. MEDMR staff devotes time and resources to help all harvesters that submit data to NMFS and MEDMR.**

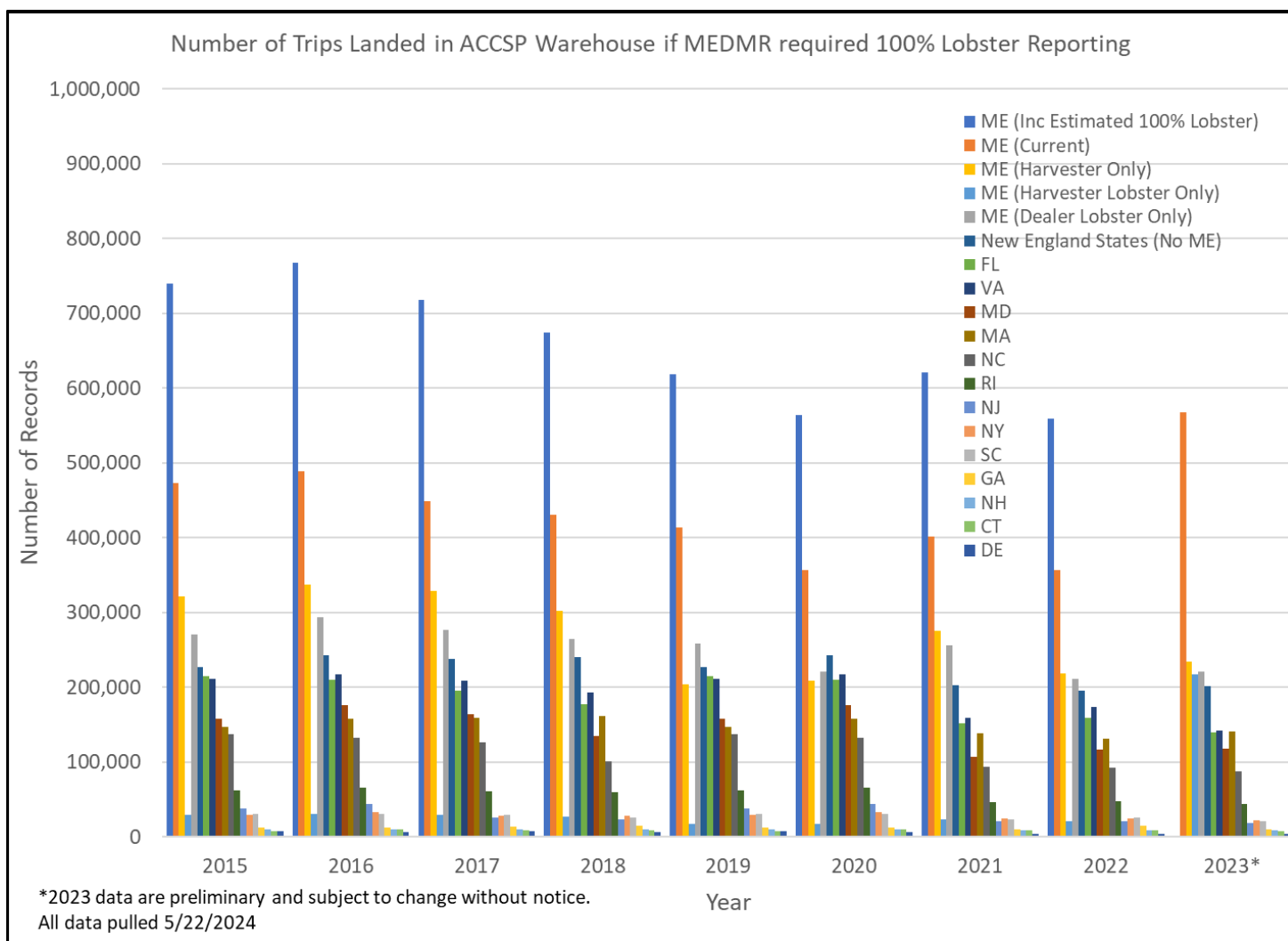


Figure 2: Number of Reported Trip Records by State Landed in ACCSP Data Warehouse

Since the MEDMR has required 100% lobster harvester reporting the volume of phone calls and data requests have increased. Throughout the year, approximately 40% to 60% of all harvesters are out of compliance for at least one month of reporting. In 2022 there were 3,576 harvesters with 5,394 individual licenses from all 14 fisheries that required harvester reporting and MEDMR sent out approximately 4,200 compliance letters (and emails) and fielded thousands of calls a month relating to reporting questions and compliance/license renewal status. Doubling the total number of harvesters required to report (many lobster harvesters are required to report other fisheries) will increase these figures and require more staff and staff time to provide industry with an acceptable level of customer service. In 2023, all 5,372 lobster harvesters were required to report (the penalty for not reporting is the inability to renew their license until they become compliant. If they do not renew their license before the end of the licensing year, then they forfeit their license). In all, there were 6,801 harvesters required to report for 8,694 licenses from 14 different fisheries. The MEDMR emailed or sent out 6,374 compliance letters to delinquent harvesters missing at least one mandatory report.

Additional staff are needed to assist with audits and the increase in data that will require auditing. The increase in data will increase the time it takes to complete audits. The implementation of 100% lobster harvester reporting allows the MEDMR to audit and compare 100% of our lobster dealer and harvester data. These two datasets alone account for just under 500,000 records annually and will take significant staff resources to complete. MEDMR historically matched up what the 10% harvester reports indicate against what dealers reported for the

same individuals. Any discrepancies over 2,000 pounds for the year are flagged and further research is conducted. Even with certain data validations in place, the data submitted through an electronic means will require a large amount of staff time to run the audits and research and correct any flagged records. These audits will take up significant staff time the first few years of 100% reporting. As of the writing on this proposal, MEDMR have plans to start these audits. The current staff level has been spending audit time assisting with the roll out of federal lobster harvester reporting since many of the federal lobster harvesters are using our VESL system to report. Other audits that staff perform on the data include spatial audits, trap counts, sea time, set time, gear configuration audits (this includes a spatial component to ensure that gear configuration matches regulatory requirements by area), over trip limits and basic vessel/harvester combinations.

The first few years will require significant outreach with industry. **Communicating with industry and fielding electronic reporting questions will be the biggest time burden the landings program will face.** Prior to 2023, 57% of all harvester records submitted to MEDMR are key entered by MEDMR staff. This number dropped to 6% in 2023 which created its own challenge of increasing the level of audits required to ensure data accuracy. Electronic reporting has been a cultural shift for the lobster fishery, which will require diligent customer service and an intuitive reporting application. MEDMR staff have spent significant resources (mostly time) holding in person and virtual meetings with industry to assist with the implementation and education of electronic reporting options with industry. MEDMR has funded the development of a new harvester reporting application that is user friendly and meets the reporting needs of all MEDMR reporting fisheries, as well as meet NMFS eVTR reporting requirements. MEDMR spent significant time testing ACCSP's eTRIPs V2, which was greatly improved over the previous versions. However, there are still significant concerns about the number of reporting pages it took to complete, the agility of a program that is not fully table driven, and the ease of use for different fisheries. The program MEDMR contracted with Bluefin Data LLC to build worka on both Android® and iOS® and meets all GARFO eVTR requirements so those harvesters with state and GARFO permits will be able to utilize this system. The MEDMR has a contract with Bluefin Data LLC that will allow any harvester with a MEDMR license or permit to use the VESL application free of charge. Since VESL was approved by GARFO, those harvesters with a MEDMR license or permit that also has reporting obligations to GARFO, they will be able to use VESL to fulfill their GARFO reporting requirements regardless of where they are landing. **All data collected through the new MEDMR funded harvester applications will be submitted directly to ACCSP through the newly developed API (requirements are listed here <https://accsp-software.github.io/spec-unified-api-prod/>).** The funding source for the new mobile applications are through dedicated technology funding within MEDMR's budget. These funds must be used for advancing technologies and cannot be used for personnel.

The number of trip records that MEDMR staff entered into MARVIN (MEDMR's database that contains all sampling, biological and landings data that MEDMR collects) has increased ~132% since 2007 (Figure 1 – view in color), which was the last year the MEDMR did not require 10% lobster harvester reporting. The overall number of reports by harvesters during this same period has increased by 2,301%. If not for the electronic reporting requirement this increase would not have been possible. Since the start of electronic reporting in ME, the number of electronic trip reports has increased 22,946% between 2023 and 2018 (265,252 reports in 2023 compared to 1,156 in 2018). When harvesters submit paper reports, they are entered into the MARVIN database. MARVIN is used for reports submitted on paper because it is a faster method of data entry and MEDMR uses this tool to audit the data before sending a copy of it to ACCSP. Routines are configured to convert the MARVIN data to ACCSP codes before they are uploaded to the ACCSP warehouse.

Landings data entered in MARVIN are uploaded to the ACCSP data warehouse. The significant increase in the amount of data entry, outreach/education and auditing are the single greatest challenge facing the landings harvester (including lobster) program staff. MEDMR currently funds seven positions that work at least part-time on harvester reporting. Currently four positions working on the harvester program are funded by ACCSP grants. In addition to the FY24 ACCSP grant, MEDMR was able to secure additional one-time funding of \$600K (funding ended on 6/20/2024) from NOAA through congressional appropriations as part of a large \$1.6 million dollar bill to offset costs that might result from new regulations in the lobster fishery to protect right whales (split with MA, NH, ME and RI) and two million for a one-time ARPA funding (this is why the MEDMR did not request funding in FY2023). While this funding is vital, it does not provide MEDMR with enough funds to fully fund multiple years of lobster reporting. MEDMR continues to look for other sources of funding (both internal and external) to fund 100% lobster reporting. MEDMR has modified the current budget from previous years funded proposals to account for the ARPA and other NOAA funds. The positions listed in this grant currently have no other funding source available. MEDMR is now requesting continued funding for four positions.

This proposal is designed to continue to assist with funding the transition from 10% harvester reporting to 100% harvester reporting where most harvesters will be required to report electronically as required by Addendum XXVI. MEDMR understands that not everyone will be able to report electronically so a paper option must still be available. The positions being funded will be doing very little data entry and will mostly be assisting harvesters with reporting questions, educating harvesters with electronic reporting options and other outreach duties along with other data entry/auditing duties.

Summary of staffing:

MEDMR Landings Program staff involved in harvester reporting who are fully funded by MEDMR:

- Scientist IV: makes decisions on the general Landings Program direction.
- Scientist III: oversees the Landings Program, participates in ACCSP committees, transfers data to ACCSP; reporting technology development and responds to data requests.
- Scientist II: manages the day-to-day operations of the Landings Program, is responsible for database development, responds to data requests and updates the Landings Program web page. This position also audits data, and monitors licenses and compliance.
- Scientist I: provides one-on-one outreach with the harvesters; trains harvesters how to report electronically or on paper; follows up on compliance issues. This position audits data from “state-only” and “NMFS” harvesters. See the *Approach* section below for further details on auditing. This position is also assigned tasks in the dealer-reporting project.
- Office Associate II: corresponds with industry regarding new suspension authority for failure to report on time; identifies and notifies delinquent reporters; follows protocols for suspending licenses; works with the licensing division to ensure licenses are re-issued when reports have been submitted.
- Office Associate I (2 positions): opens and processes mail and enters data into MARVIN.

New MEDMR Landings Program staff to be funded by additional ARPA grant:

- Marine Resource Scientist II (1 position): Oversee the daily operations of harvester reporting program, including but not limited to scheduling of duties, directly supervising four employees, managing harvester data audits, database maintenance and assisting with reporting writing.
- Marine Resource Scientist I (2 positions): Oversee the rollout of the new offline harvester reporting application, outreach with industry and overseeing data audits. These two positions will be one of the primary contacts for industry members that have reporting program questions.
- Office Specialist I Supervisor (1 position): Supervise two Office Associate I positions and two Office Associate II positions located in the West Boothbay Harbor, ME Laboratory. This position will assist

with incomplete reports, handle in-person report drop-off, report rejections, compliance mailings and calls and data audits.

- Office Associate II (1 position): Will have similar duties to the Office Associate II listed below. Will be based out of our Augusta office and will be cross-trained to assist our Licensing Department when help is needed.
- Office Associate II: Primary contact for incomplete reports, rejects reports, primary contact for compliance and reporting questions, notifies new harvesters of reporting requirements, assists with audit research.

New MEDMR Landings Program staff to be funded by ACCSP grant:

- Marine Resource Specialist II (2 positions): Help run data audits and correct erroneous data, primary data audit researcher for dealer vs harvester audits and will assist the Marine Resource Scientist I's with any industry technical outreach questions.
- Office Associate II (2 positions): Will have similar duties to the Office Associate II listed above that is currently staffed by Kristina Lewis). This position will be based out of our West Boothbay Harbor office.

The MEDMR decided against the idea to ramp up from the current number of harvesters selected to report to 100% reporting. It was determined the best way forward is to go directly to 100% harvester reporting. For MEDMR to provide excellent customer service from the beginning, the number of positions proposed were what we felt necessary to provide the best level of customer service while being as fiscally responsible as possible. Each position created was a limited period position and each year MEDMR will evaluate these positions to determine if they are still needed. We anticipate that by year 3 to 5 we might be able to reduce the number of positions as harvesters become more versed with the reporting programs.

Finding funding to help defray the costs for this federally mandated requirement is something that the MEDMR has been looking for and will continue to look for. MEDMR will also look for ways to bring the overall costs down through either staff reductions as the program evolves or any and all in-house or outside sources. MEDMR will continue to look at ways to streamline the Landings Program's operation and will continue to try and automate as many processes (compliance and audits for instance) that will cut down on staffing needs. The extra staff included in this proposal will assist with the initial roll out and anticipated help that industry will need and the ability to assist industry within a reasonable amount of time to answer their questions.

It is essential that this harvester reporting program continue to meet funding needs, which are born as a result of ASMFC's requirement that MEDMR collect trip level harvester reports from 100% of all licensed commercial lobster harvesters. The implementation of new lobster fishery regulations in the Atlantic Large Whale Take Reduction Plan to reduce the threat of entanglement to endangered right whales is expediting the timeframe to increase reporting to 100% faster than Addendum XXVI required. **Requiring 100% lobster reporting will add another tool for monitoring Maine's commercial fisheries, which are large and economically important to the U.S. seafood industry.** According to the NMFS commercial fisheries database (as of 5/29/2024), Maine was ranked as the highest state on the Atlantic Coast in commercial value (\$630.7 million of which \$464.4 million were lobster) and fourth highest in whole pounds landed (198.4 million of which 93.73 million were lobster) in 2023. **This comprehensive harvester reporting program also addresses ASMFC compliance issues for several fisheries, including American lobster, Atlantic herring, American eel and Atlantic menhaden.**

This grant does not include any funding for the offline mobile harvester reporting application. The MEDMR has fully funded the original programming, programmatic updates and maintenance costs associated with this project. The MEDMR will continue to fund the monthly maintenance fees. MEDMR will continue to try to identify alternative sources of funding for the harvester reporting project, but the

State of Maine is continuing to face budget challenges and there are few options for state funding to cover the total cost.

Results and Benefits:

The data collected so far through MEDMR's harvester reporting program have shown how valuable this information is for Maine's fisheries. **Currently MEDMR requires 14 fisheries to submit trip level harvester reports and prior to 2023, lobster was the only fishery not collecting 100% of harvester trips (Figure 3 shows all non-confidential fisheries trips reported over past 5 years).** **Maine's commercial lobster fishery is by far the largest lobster fishery on the East Coast in both volume and number of individuals.** There are just under 5,400 licensed harvesters of which MEDMR previously selected between 380 and 800 harvesters each year to report. Even with selecting only a percentage of harvesters in the lobster industry, MEDMR scientists have learned more about the fleet characteristics, gear configurations and fishing patterns for full time and part time fishermen involved in this fishery than they have been able to with the current sampling programs. Other fishery managers are now analyzing landings data to learn more about the fishing fleet and the makeup of other fisheries. **Requiring 100% reporting will only increase the MEDMR's knowledge base and increase the amount of data collected.** Since most data will be submitted to SAFIS and all data stored in the ACCSP Warehouse, this large dataset will be available to all partners.

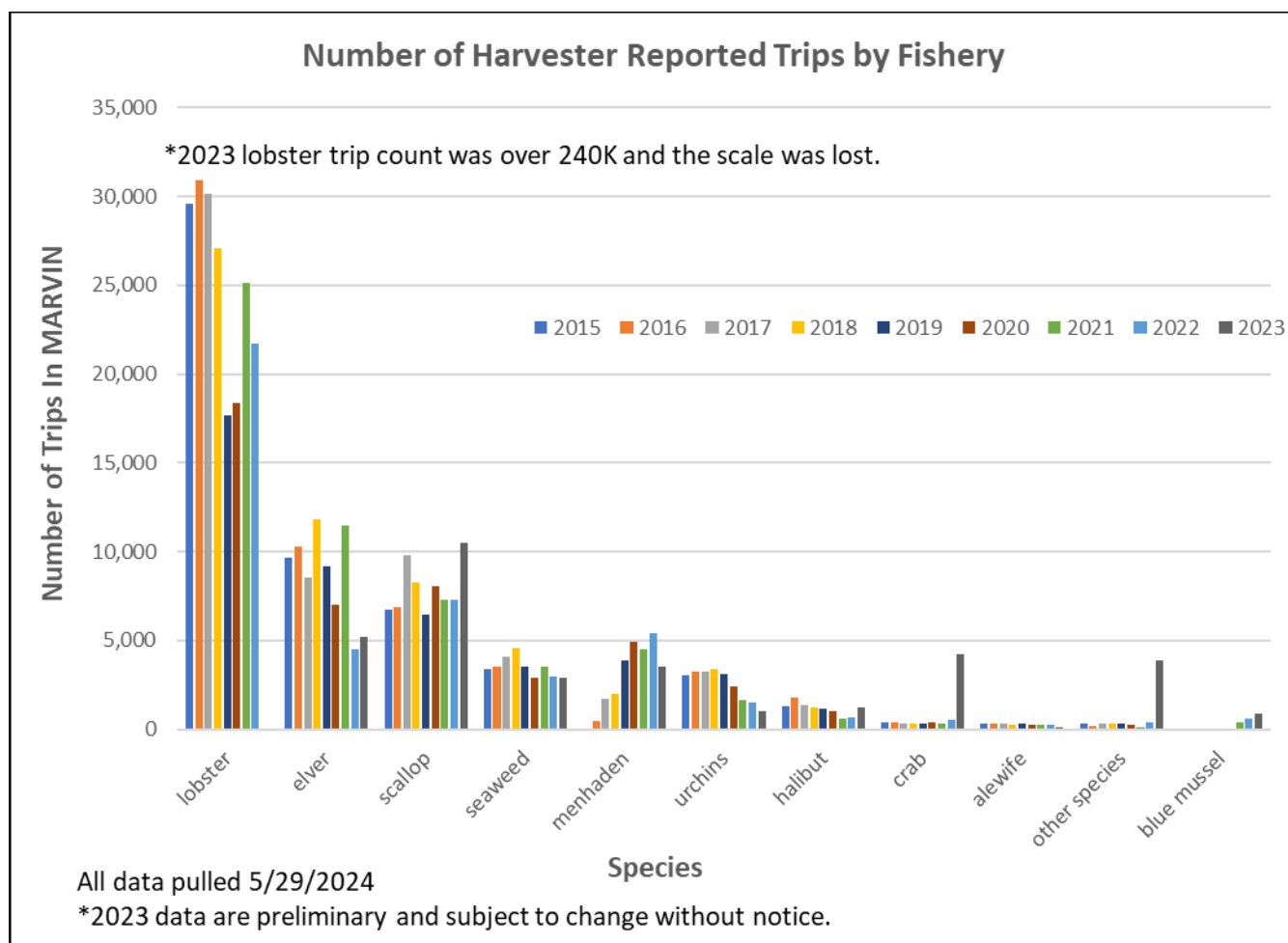


Figure 3: Number of Harvester Reported Trips by Fishery from Harvester Data

This grant will continue to allow MEDMR to meet ASMFC's Addendum XXVI target of 100% harvester reporting in the lobster fishery by January 2024. MEDMR wanted to speed up this deadline for protected

species issues and required 100% trip level reporting in the lobster fishery in January 2023. This grant will allow MEDMR the ability to continue to fund positions needed to ensure the data collected are as accurate as possible through more data auditing, especially linking dealer and harvester reports together through our “dealer vs harvester reporting” audits where we match up each harvester report to the dealer report and their total landings are scrutinized. MEDMR staff’s ability to audit the spatial data while overlapping effort data has also provided fisheries managers with a level of certainty that was previously **unattainable**. Addendum XXVI does not necessarily require 100% electronic reporting; however, MEDMR has required nearly 100% lobster harvester electronic reporting and know that harvesters in other fisheries were looking to move from paper reporting to electronic reporting. MEDMR anticipates that harvesters that report on paper will be offset by those that have reported on paper but will be required to switch to an electronic reporting option and the data entry staff currently employed will be sufficient. Staff are fielding more calls each day asking about electronic reporting and are promoting our Maine LEEDS and VESL online reporting, but most want a mobile friendly reporting option. **MEDMR is already uploading data reported to MARVIN to ACCSP every six months and intends to start uploading every other month; which benefits all partners.**

Metadata for the harvester program will be updated as needed according to the Federal Geographic Data Committee (FGDC) and the Content Standard for Digital Geospatial Metadata (CSDGM) standards where appropriate. The resulting metadata will be reported to ACCSP as text and XML.

This project will help MEDMR meet the data collection standards of ACCSP. All partners will benefit, as all data will be uploaded to ACCSP and many of the species landed in Maine have a broad geographic range which includes many other agencies in their management. Partners will benefit from the technologies built and lessons learned from the offline harvester reporting application MEDMR intends to have in production by early summer as this will be available to any partner.

Approach:

1. Enforce compliance

MEDMR staff will enforce compliance of the trip level reporting regulation through these methods:

- **Provide initial outreach and technical support needed for harvesters to report trip level landings to MEDMR. Meet with harvesters in a group setting and one on one as needed to explain reporting procedures, install application, troubleshoot issues with reporting, and explain consequences for failing to report.**
- **Review paper reports submitted for completeness and verify the submissions in Maine LEEDS. If reports are incomplete, MEDMR will contact industry to correct reporting mistakes. If a harvester cannot be contacted by phone, the report will be returned for correction. Reports submitted electronically are deemed complete upon submission. If during the data audit process reports are unable to be reconciled, MEDMR staff will reject the electronic report back to the harvester for correction and re-submission.**
- **Send delinquent harvesters not included in the suspension process emails indicating what they are missing and send automated notifications within the Maine LEEDS program when a report is received or not.**
- **Complete suspension notices monthly to those harvesters involved in the halibut, herring, menhaden and elver fisheries that are delinquent enough to meet the minimum notification criteria as outlined in the suspension law (Attachment 4).**
- **Complete follow-up suspension notices monthly to those harvesters that are delinquent enough to meet the minimum notification criteria as outlined in the suspension law (Attachment 4).**
- **MEDMR will suspend harvester licenses for those who fail to report in a timely manner. See Attachment 4 for the law, which dictates suspension procedures MEDMR will follow.**

2. Data entry

Paper reports and electronic reports entered through the Maine LEEDS system will go directly into MARVIN and then uploaded to the ACCSP Warehouse at least every 6 months once it has been thoroughly audited.

The harvester reporting application MEDMR contracted to have built by Bluefin Data LLC includes point of entry validations for harvester, vessel, gear, gear to various other variables (i.e. fisheries, gear quantities), gear quantities, locations, pounds, dispositions for example. The data entered through these new applications will utilize ACCSP's API and all data will be submitted directly into SAFIS.

3. Encourage electronic reporting

MEDMR staff will require lobster, menhaden, scallop, halibut and herring harvesters to report electronically and encourage harvesters who report on paper for other fisheries to report using one of the two electronic reporting methods MEDMR will offer (Maine LEEDS or our own Offline Electronic Reporting Application). MEDMR staff will train all harvesters who are required to report electronically regardless if they have reporting obligations to NOAA or not.

MEDMR believes that electronic reporting will benefit industry as much as it benefits MEDMR. If harvesters enter their own data through the MEDMR proposed application, they will have the ability to run basic analytics within the application to view their own trends and harvest information. MEDMR will benefit by reducing the amount of staff time spent entering data. If MEDMR was not able to offer an electronic reporting option, the number of data entry staff required to handle approximately 280,000 records per year would be at least 7 or 8 individuals in addition to what is currently proposed. Electronic reporting will not only save MEDMR staff data entry time, we will be able to automate many of our daily reporting processes, include data validation at the point of harvester entry and automate compliance and spend more time on data audits and outreach with industry.

4. Continue outreach with industry to promote buy-in.

MEDMR staff will continue to work with harvesters to explain the purpose and benefits of harvester reporting. MEDMR staff spent three days at the annual Fishermen's Forum in March 2024 and were available to assist harvesters with setting up and demonstrating the two reporting options MEDMR are currently offering (VESL and Maine LEEDS). These three days were very successful with staff directly assisting over 100 individuals and providing information to others that were not quite ready to start fishing and just wanted to see what was available. MEDMR in 2023 held six meetings along the coast of Maine to assist harvesters with setting up their reporting software or answer questions. All six sessions were very successful and heavily attended. MEDMR staff are available by phone or video calls Monday – Friday from 8 to 4:30 but many harvesters need the extra help of someone in person to guide them through the initial set up and first few reports. Many of these individuals have little to no experience with smartphones, tablets or computers so the learning curve can be steep. MEDMR staff have also added resources on our Landings Program homepage (<https://www.maine.gov/dmr/fisheries/commercial/landings-program>) to assist harvesters with reporting questions. Currently we have “how-to” guides for each fishery available and will be uploading videos to help assist harvesters. Before the 100% reporting became a requirement staff (along with staff from GARFO and Bluefin Data LLC) attended the annual Maine Fishermen's Forum in March 2020 to facilitate an electronic reporting discussion. This discussion allowed MEDMR, GARFO and Bluefin Data LLC an opportunity to show harvesters the current and future electronic reporting options that are/will be available. The session was lightly attended but helped formulate ideas of how to improve this important part of outreach. In addition to the in-person trainings we have offered we will also utilize videos and remote outreach; however, there are times when it is most productive to hold a few large in-person

meetings to assist those that are not as tech savvy as others and are more comfortable having an in-person meeting. Having to on-board almost 5,400 new harvesters will require every tool we have in our toolbox. There are also areas in Maine where internet speeds and or connectivity are lacking so remote meetings are difficult (this is why we developed a reporting application that will work “offline”). We intend to rely heavily on remote meetings and self-help video and reporting how-to’s to assist those individuals that are comfortable with that format but will continue to hold in-person meetings for those that need extra assistance. In addition to the above issues was the delay in NOAA requiring 100% lobster reporting until April 1, 2024. There are approximately 1,300 federally permitted lobster harvesters in Maine that also have a MEDMR commercial lobster license. The majority of these 1,300 harvesters had no previous federal reporting experience and were not familiar with NOAA’s different forms and terminology. MEDMR staff have been working closely with NOAA GARFO staff to help educate these harvesters and explain the differences from what harvesters were reporting as “state only” now that they are required to report to NOAA.

Staff will work with established industry organizations, such as the MEDMR advisory councils, lobster zone councils, and dealer and harvester associations to reiterate the program goals and show results of mandatory reporting. Staff will also focus on explaining the statutory authority for suspending licenses for those who fail to report on time, and how this will help gather more accurate data.

5. Audit of harvester data submitted.

Staff will audit data submitted bi-weekly. Paper data will be audited twice per month; electronic audits sent via email from SAFIS will be corrected weekly. SAFIS audits for “state-only” harvesters will be corrected through the VESL app by either industry or MEDMR staff. **Audits concerning federal harvesters will be vetted through the NMFS Northeast Region. MEDMR staff will audit electronic data submitted by federal harvesters because these harvesters submit data in order to also fulfill MEDMR reporting requirements. MEDMR performs basic audits of records to catch potential oversights from NMFS audits.** MEDMR also compares dealer-reported landings with harvester-reported landings and identifies both parties if there are any discrepancies. In these audits, MEDMR contacts dealers and harvesters when discrepancies are discovered and works to correct records or recover missing data.

MEDMR does intend to audit 100% of all individual records that are submitted. **Many of these audits will be simple gross audits (over the trip, gear quantity, spatial audits, etc.); however, the data submitted through the new mobile application have some validations built-in for pre-submission checks. Harvesters will not be able to enter certain gear/species combinations, certain dispositions for certain species and gear quantity checks for instance. The app also utilizes validations built into ACCSP’s API (species/market/grade combos for instance) Many of these audits will be canned within the audit database and will be added to a routine check. Staff have been working on incorporating spatial audits to our routine. They have added gear configuration by area reported to these audits to catch any harvesters that might be reporting their gear configuration incorrectly based on the area they reported their activity. The dealer/harvester audits are performed annually and start by looking at yearly totals with a 2,000 pound discrepancy. Dealer/harvester audits are not performed on a trip by trip basis.**

6. Transmission of harvester data to ACCSP.

MEDMR will continue to upload harvester data from MARVIN to the ACCSP data warehouse once every two months. In each data feed, the following fields are uploaded to the warehouse according to ACCSP protocols: cf_license_nbr, iss_agency, trip_type, supplier_trip_id, port, state, coast_guard_nbr, state_reg_nbr, trip_start_date, trip_start_time, trip_end_date, trip_end_time, num_crew, num_anglers, vtr_number, vessel_permit, sub_trip_type, reporting_source, fuel_used, fuel_price, charter_fee, distance, in_state, area_code, sub_area_code, local_area_code, latitude, longitude, gear, lma, gear_quantity,

gear_sets, fishing_hours, hours_days, total_gear, gear_size, mesh_ring_length, mesh_ring_width, stretch_size, target_species, avg_depth, species_itis, disposition, market_code, grade_code, unit_of_measure, sale_disposition_flag, dealer_license_nbr, date_sold, reported_quantity, price, dea_iss_agency, catch_source, catch_latitude, catch_longitude, supplier_catch_id. MEDMR enters data daily and audits data weekly, so the data uploaded to the warehouse are a mix of pre- and post-audited records. MEDMR does not keep track of what percentage of the uploaded records are “reloads” due to errors, but simply reloads all the data in MARVIN to the warehouse once every three months. **In addition, the data supplied by the MEDMR offline mobile application will be sent directly to SAFIS daily.**

The MEDMR does not upload data from MARVIN to SAFIS because MEDMR staff continually audit data each week, so the data that are uploaded to the warehouse are a mix of pre- and post-audited records. The reloading of data from MARVIN to the Warehouse is an automated process that the MEDMR loads into a temporary table provided by the Warehouse. If we were to perform the same upload method to SAFIS we would need the ability to mass delete records from SAFIS (which we do not have the ability to do at this time) before records are reloaded to avoid creating duplicate records.

7. Report metadata to ACCSP.

Metadata will be created with ESRI ArcCatalog 10 in order to conform to the FGDC (Federal Geographic Data Committee) standards and specifications. As specified by the federal standard, MEDMR metadata will include the following main sections with detailed information on: identification information, data quality information, spatial data organization information, spatial reference information, entity and attribute information, distribution information, metadata reference information, citation information, time period information and contact information. Created metadata will be available in text and XML formats.

Geographic Location: Operations will be based out of Boothbay Harbor, Maine and the project will take place throughout Maine.

Milestone Schedule:

	<u>Months</u>											
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>
1. Enforce harvester compliance	X	X	X	X	X	X	X	X	X	X	X	X
2. Data enter harvester reports	X	X	X	X	X	X	X	X	X	X	X	X
3. Encourage electronic harvester reporting	X	X	X	X	X	X	X	X	X	X	X	X
4. Industry outreach to promote industry buy-in	X	X	X	X	X	X	X	X	X	X	X	X
5. Audit harvester data	X	X	X	X	X	X	X	X	X	X	X	X
6. Upload harvester data to ACCSP		X		X		X	X		X		X	
7. Report metadata to ACCSP												X
8. Semi-annual reports						X						X
9. Annual reports												X

Table 3. Project Accomplishments Measurement:

Goal	Measurement	2019	2020*	2021	2022	2023*
Enforce Harvester Compliance	Number of compliance letters to harvesters	3,226	2,555	1,903	3,283	6,374
Enforce Harvester Compliance	Number of harvesters suspended for failing to report timely	447	421	560	628	257
Harvester Data Entry	Number of trip records by year landed in data warehouse	46,386	44,550	56,573	44,221	233,721
Harvester Data Entry	Number of positive trip records by year landed in MARVIN	48,843	47,136	65,026	49,984	175,475
Harvester Data Entry	Number of paper trip records entered in MARVIN	46,069	36,014	50,114	31,038	16,081
Harvester Data Entry	Number of electronic trip reports entered into Maine LEEDS	2,774	11,122	14,912	18,946	159,394
Harvester Data Entry	Number harvesters entering directly into Maine LEEDS	235	603	764	1,240	3,071
Harvester Data Entry	Number of electronic trip reports entered into VESL	-	-	352	3,297	86,152
Encourage Electronic Reporting	Number harvesters entering directly into VESL	-	-	15	170	1,428
Harvester Data Entry	Number of positive trip records by year landed in SAFIS	-	234	1,283	4,950	105,858
Encourage Electronic Reporting	Number of harvesters submitting positive reports in SAFIS	-	-	30	262	1,677
Transmit Harvester Data to Data Warehouse	Frequency of data submitted by year landed	1 time every 6 months	1 time every 6 months	1 time every 6 months	1 time every 6 months	1 time every 6 months
Outreach	Number of custom data requests	479	946	733	1,044	1,057
Outreach	Number of custom data requests from portal	-	362	667	648	692

*2023 data are incomplete at time of report creation.

Text in bold indicate where proposal hit on ranking criteria.

Cost Summary: FY25 Managing 100% Lobster Harvester Reporting in Maine				
5/1/2025 - 4/30/2026				
Personnel ^A			Description	Cost
072002692	E. Patrick	Marine Resource Specialist II	full time position for 12 months	\$39,053.01
072002693	Z. May	Marine Resource Specialist II		\$39,053.01
072002705	M. Angelico	Office Associate II		\$36,014.93
072002706	L. Schinhofen	Office Associate II		\$36,014.93
			Subtotal	\$150,135.87
Fringe Benefits ^A				
072002692	E. Patrick	Marine Resource Specialist II	Includes health, dental, workers comp, FICA, life insurance and retirement	\$25,587.76
072002693	Z. May	Marine Resource Specialist II		\$25,577.39
072002705	M. Angelico	Office Associate II		\$23,410.96
072002706	L. Schinhofen	Office Associate II		\$23,420.81
			Subtotal	\$97,996.91
			Total Personnel	\$248,132.78
Travel				
1 vehicle ^B			1 car * \$377.34/mo * 12 mo	\$4,528.08
Mileage fee			1 car * 1,150 mi per mo * \$.1533/mi * 12 mo	\$2,115.54
2 Overnight stays ^C			2 * \$150/night	\$0.00
Per diem (includes extended days)			(2 overnights @ \$65/day & 5 extended days @ \$24/day)	\$250.00
			Total Travel	\$6,893.62
Supplies				
Year labels			1,000 labels (500/box * 2 boxes * \$15.00/box)	\$30.00
Folder labels			1,000 labels (500/box * 12 boxes * \$24.50/box)	\$49.00
Other				
Telecommunication charges ^D			5 phones * \$50/mo * 12 mo	\$3,000.00
			Total Supplies	\$3,079.00
			Subtotal	\$9,972.62
Total Direct Costs				\$258,105.40
Indirect Costs (30%)				\$77,431.62
Total Award to DMR				\$335,537.01
A: Cost includes salary and benefits, which are dictated by contract with State of Maine and are non-negotiable.				
B: All state agencies must rent vehicles through state's Central Fleet Agency which is non-negotiable. Vehicle costs include the following services and costs: maintenance, repairs, insurance, and gasoline.				
C: DMR staff meet with and train harvesters how to electronically report to DMR and/or NMFS.				
D: One cell phone for each of the Scientist II, Scientist I (2) and Specialist II (2) working on the project.				

Partner Contribution For ACCSP Purposes		
J. Waller	072001271 Scientist IV (7% time)	\$11,739
R. Watts	072002431 Scientist III (25% time)	\$39,528
L. White, Jr	072002453 Scientist II (25% time)	\$40,902
E. Layland	072002398 Scientist I (25% time)	\$27,562
D. Chase	072002540 Office Associate I (85% time)	\$43,002
C. Bear	072002657 Office Associate I (50% time)	\$32,404
D. Young	072002647 Office Associate II (25% time)	\$22,713
		\$217,850

Text in bold indicate where proposal hit on ranking criteria.

Budget Narrative for FY2025 proposal:

Personnel and Fringe Benefits: The positions in this proposal (2 Marine Resource Specialist II and 2 Office Associate II). These positions are funded part-time (75%) by this award and are Department of Marine Resources' employees. Salary and benefits for this employee are dictated by the contract with the State of Maine and are non-negotiable. Benefits include retirement benefits, FICA, health insurance, dental insurance, workers compensation and life insurance. The benefits are determined by a formula the state uses which is variable dependent upon the position classification, the pay grade of the employee (e.g. the number of years the person has been employed by the State of Maine) and type of coverage the employee selects.

Travel: The Scientists and Specialists are the employees who will be travelling. The travel is for holding electronic harvester reporting workshops, visiting harvesters to install reporting software, training harvester staff how to electronically report or troubleshooting reporting problems. Staff provide harvesters with one-on-one training first via phone but then in person if individuals need further assistance with the reporting system and help troubleshoot electronic reporting problems. Travel occurs throughout the coast of Maine, although trips to the interior are unusual unless the harvester can only meet inland. These harvesters must be trained in the use of electronic reporting and in some cases a group informational setting will not be enough for some to learn how to report their landings information.

The monthly fee for the vehicle is dictated by contract with the State of Maine Central Fleet Agency; the fee is based on the type of vehicle leased, and the mileage fee is based on how many miles the car was driven the previous year. Because of this, the vehicle fees between projects may differ. This project has one Nissan Rogue SUV which is a state-owned vehicle that MEDMR leases from the State of Maine Central Fleet Agency.

Occasional extended day travel is necessary. If multiple harvester appointments to these remote areas are made for the same day, extended days may be necessary. The rates were calculated through the GSA website for posted rates.

Supplies: Filing supplies are needed each year but as more harvesters eventually shift to electronic reporting the need for filing supplies will decrease. The filing supplies include labels (year and name) and protective coatings for these labels. These are the same folders used for all MEDMR's harvester reports and are purchased from Allied Systems Products AAK Filing system.

Other: Cell phones for the Specialists and the Scientists are necessary for communication and safety when travelling to harvester meeting locations. Staff often need to call NMFS or the programmer when installing software or troubleshooting reporting issues in the field.

Indirect costs: The Department of Marine Resources has an indirect cost rate of 33.7%; however, our commissioner has authorized this proposal to use the lower rate of 30%. See Attachment 3 for the Negotiated Indirect Cost Agreement. These indirect funds are a necessity to help defray and offset the administrative costs associated with the ASMFC's directive to increase MEDMR's lobster reporting from its current rate to 100%. These indirect monies are utilized to help cover the administrative costs not covered directly by this grant proposal and help offset any burden MEDMR assumes with fulfilling their ASMFC reporting requirements.

Cost Summary: FY24 Managing 100% Lobster Harvester Reporting in Maine				
5/1/2024 - 4/30/2025				
Personnel ^A			Description	Cost
072002692	E. Patrick	Marine Resource Specialist II	full time position for 12 months	\$37,260.66
072002693	Z. May	Marine Resource Specialist II		\$37,260.66
072002705	M. Angelico	Office Associate II		\$37,495.13
072002706	L. Schinhofen	Office Associate II		\$37,495.13
			Subtotal	\$149,511.59
Fringe Benefits^A				
072002692	E. Patrick	Marine Resource Specialist II	Includes health, dental, workers comp, FICA, life insurance and retirement	\$24,553.58
072002693	Z. May	Marine Resource Specialist II		\$24,533.17
072002705	M. Angelico	Office Associate II		\$24,635.70
072002706	L. Schinhofen	Office Associate II		\$24,640.32
			Subtotal	\$98,362.76
			Total Personnel	\$247,874.35
Travel				
1 vehicle ^B			1 car * \$377.34/mo * 12 mo	\$4,528.08
Mileage fee			1 car * 1,150 mi per mo * \$.1533/mi * 12 mo	\$2,115.54
2 Overnight stays ^C			2* \$150/night	\$300.00
Per diem (includes extended days)			(2 overnights @ \$65/day & 5 extended days @ \$24/day)	\$250.00
			Total Travel	\$7,193.62
Supplies				
Year labels			1,000 labels (500/box * 2 boxes * \$15.00/box)	\$30.00
Folder labels			1,000 labels (500/box * 12 boxes * \$24.50/box)	\$49.00
Other				
Telecommunication charges ^D			5 phones * \$50/mo * 12 mo	\$3,000.00
			Total Supplies	\$3,079.00
			Subtotal	\$10,272.62
			Total Direct Costs	\$258,146.97
			Indirect Costs (30%)	\$77,444.09
			Total Award to DMR	\$335,591.06
A: Cost includes salary and benefits, which are dictated by contract with State of Maine and are non-negotiable.				
B: All state agencies must rent vehicles through state's Central Fleet Agency which is non-negotiable. Vehicle costs include the following services and costs: maintenance, repairs, insurance, and gasoline.				
C: DMR staff meet with and train harvesters how to electronically report to DMR and/or NMFS.				
D: One cell phone for each of the Scientist II, Scientist I (2) and Specialist II (2) working on the project.				

Partner Contribution For ACCSP Purposes		
J. Waller	072001271 Scientist IV (7% time)	\$9,484
R. Watts	072002431 Scientist III (25% time)	\$33,317
L. White, Jr	072002453 Scientist II (25% time)	\$31,627
E. Layland	072002398 Scientist I (25% time)	\$17,762
Vacant	072002540 Office Associate I (85% time)	\$39,796
C. Young	072002657 Office Associate I (50% time)	\$29,513
D. Young	072002647 Office Associate II (25% time)	\$20,719
		\$182,218

Text in bold indicate where proposal hit on ranking criteria.

Budget Narrative for FY2024 proposal:

Personnel and Fringe Benefits: The positions in this proposal (2 Marine Resource Specialist II and 2 Office Associate II). These positions are funded part-time (90%) by this award and are a Department of Marine Resources' employees. Salary and benefits for this employee are dictated by contract with the State of Maine and are non-negotiable. Benefits include retirement benefits, FICA, health insurance, dental insurance, workers compensation and life insurance. The benefits are determined by a formula the state uses which is variable dependent upon the position classification, the pay grade of the employee (e.g. the number of years the person has been employed by the State of Maine) and type of coverage the employee selects.

Travel: The Scientists and Specialists are the employees who will be travelling. The travel is for holding electronic harvester reporting workshops, visiting harvesters to install reporting software, training harvester staff how to electronically report or troubleshooting reporting problems. Staff provide harvesters with one-on-one training first via phone but then in person if individuals need further assistance with the reporting system and help troubleshoot electronic reporting problems. Travel occurs throughout the coast of Maine, although trips to the interior are unusual unless the harvester can only meet inland. These harvesters must be trained in the use of electronic reporting and in some cases a group informational setting will not be enough for some to learn how to report their landings information.

The monthly fee for the vehicle is dictated by contract with the State of Maine Central Fleet Agency; the fee is based on the type of vehicle leased, and the mileage fee is based on how many miles the car was used the previous year. Because of this, the vehicle fees between projects may differ. This project has one Nissan Rogue SUV which is a state-owned vehicle that MEDMR leases from the State of Maine Central Fleet Agency.

Occasional extended day travel or overnight stays are necessary. If multiple harvester appointments to these remote areas are made for the same day, or appointments are made for consecutive days, overnight travel may be necessary. The rates were calculated through the GSA website for posted rates.

Supplies: Filing supplies are needed each year but as more harvesters eventually shift to electronic reporting the need for filing supplies will decrease. The filing supplies include labels (year and name) and protective coatings for these labels. These are the same folders used for all of MEDMR's harvester reports and are purchased from Allied Systems Products AAK Filing system.

Other: Cell phones for the Specialists and the Scientists are necessary for communication and safety when on travel to harvester meeting locations. Staff often needs to call NMFS or the programmer when installing software or troubleshooting reporting issues in the field.

Indirect costs: The Department of Marine Resources has an indirect cost rate of 32.83%; however, our Commissioner has authorized this proposal use the lower rate of 30%. See Attachment 3 for the Negotiated Indirect Cost Agreement. These indirect funds are a necessity to help defray and offset the administrative costs associated with the ASMFC's directive to increase MEDMR's lobster reporting from its current rate to 100%. These indirect monies are utilized to help cover the administrative costs not covered directly by this grant proposal and help offset any burden MEDMR assumes with fulfilling their ASMFC reporting requirements.

Cost Summary: FY22 Managing 100% Lobster Harvester Reporting in Maine				
5/1/2022 - 4/30/2023				
Personnel ^A		Description		Cost
2 Marine Resource Specialist II (to be created)		full time position for 12 months	2 @ \$40,816	\$81,632.00
2 Office Associate II (to be created)		full time position for 12 months	2 @ \$34,361.60	\$68,723.20
			Subtotal	\$150,355.20
Fringe Benefits ^A				
2 Marine Resource Specialist II (to be created)		Includes health, dental, workers comp, FICA, life	2 @ \$24,490	\$48,980.00
2 Office Associate II (to be created)		insurance and retirement	2 @ \$20,617	\$41,234.00
			Subtotal	\$90,214.00
			Total Personnel	\$240,569.20
Travel				
1 vehicle ^B		1 car * \$377.34/mo * 12 mo		\$4,528.08
Mileage fee		1 car * 1,150 mi per mo * \$.1533/mi * 12 mo		\$2,115.54
Toll allowance		Estimated		\$200.00
5 Overnight stays ^C		4* \$150/night		\$600.00
Per diem (includes extended days)		(2 overnights @ \$65/day & 5 extended days @ \$24/day)		\$250.00
			Total Travel	\$7,693.62
Supplies				
Year labels		1,000 labels (500/box * 2 boxes * \$15.00/box)		\$30.00
Folder labels		1,000 labels (500/box * 12 boxes * \$24.50/box)		\$49.00
AAK Color Coded Folders ^D		1,000 folders (50/box * 120 boxes * \$23/box)		\$460.00
Other				
Printing and binding of harvester report forms		500 logbooks * \$2.50 per logbook		\$1,250.00
Postage for logbooks		Mail 500 logbooks * \$5.00 per logbook		\$2,500.00
Postage for info packets and letters		(\$0.55*1000 compliance letters)		\$550.00
Maine LEEDS enhancement programming				\$2,100.00
Telecommunication charges ^E		5 phones * \$50/mo * 12 mo		\$3,000.00
			Total Supplies	\$9,939.00
			Subtotal	\$17,632.62
Total Direct Costs				\$258,201.82
Indirect Costs (30%)				\$77,460.55
Total Award to DMR				\$335,662.37

A: Cost includes salary and benefits, which are dictated by contract with State of Maine and are non-negotiable.

B: All state agencies must rent vehicles through state's Central Fleet Agency which is non-negotiable. Vehicle costs include the following services and costs: maintenance, repairs, insurance, and gasoline.

C: DMR staff meet with and train harvesters how to electronically report to DMR and/or NMFS.

D: AAK Color Coded Folders are folders MEDMR uses for all harvester reporting, they are reusable but will need 2 years supply eventually.

E: One cell phone for each of the Scientist II, Scientist I (2) and Specialist II (2) working on the project.

Partner Contribution For ACCSP Purposes

Scientist IV (7% time)	\$9,116
Scientist III (25% time)	\$25,919
Scientist II (25% time)	\$28,742
Specialist II (25% time)	\$19,788
Office Associate I (85% time)	\$66,322
Office Associate I (50% time)	\$39,013
Office Associate II (25%)	\$19,604
	\$208,504

Budget Narrative for FY2022 proposal:

Personnel and Fringe Benefits: The new positions proposed in this proposal (2 Marine Resource Specialist II and 2 Office Associate II). These positions are funded full time (100%) by this award and are a Department of Marine Resources' employees. Salary and benefits for this employee are dictated by contract with the State of Maine and are non-negotiable. Benefits include retirement benefits, FICA, health insurance, dental insurance, workers compensation and life insurance. The benefits are determined by a formula the state uses which is variable dependent upon the position classification, the pay grade of the employee (e.g. the number of years the person has been employed by the State of Maine) and type of coverage the employee selects.

Travel: The Scientists and Specialists are the employees who will be travelling. The travel is for holding electronic harvester reporting workshops, visiting harvesters to install reporting software, training harvester staff how to electronically report or troubleshooting reporting problems. Staff provide harvesters with one-on-one training first via phone but then in person if individuals need further assistance with the reporting system and help troubleshoot electronic reporting problems. Travel occurs throughout the coast of Maine, although trips to the interior are unusual unless the harvester can only meet inland. These harvesters must be trained in the use of electronic reporting and in some cases a group informational setting will not be enough for some to learn how to report their landings information.

The monthly fee for the vehicle is dictated by contract with the State of Maine Central Fleet Agency; the fee is based on the type of vehicle leased, and the mileage fee is based on how many miles the car was used the previous year. Because of this, the vehicle fees between projects may differ. This project has one Nissan Rogue SUV which is a state-owned vehicle that MEDMR leases from the State of Maine Central Fleet Agency.

Occasional extended day travel or overnight stays are necessary. If multiple harvester appointments to these remote areas are made for the same day, or appointments are made for consecutive days, overnight travel may be necessary. The rates were calculated through the GSA website for posted rates.

Supplies: Filing supplies are needed each year but as more harvesters eventually shift to electronic reporting the need for filing supplies will decrease. The filing supplies include AAK folders used to store individuals log sheets, labels (year and name) and protective coatings for these labels. These are the same folders used for all of MEDMR's harvester reports and are purchased from Allied Systems Products AAK Filing system.

Other: The MEDMR will try and push electronic reporting as much as possible and will require waivers to report on paper for lobster reporting. To help cut down on costs, MEDMR will try and have harvesters print their own paper forms when necessary from the MEDMR website. We do accept forms via email, fax or U.S. mail. The bound logbook includes a carbon copy that harvesters use for their records, or to resend should the original gets lost in the mail. Many harvesters like this carbon copy feature, which is one of the main reasons why we choose to continue to purchase these bound logbooks. Cell phones for the Specialists and the Scientists are necessary for communication and safety when on travel to harvester meeting locations. Staff often needs to call NMFS or the programmer when installing software or troubleshooting reporting issues in the field. The line for Maine LEEDS enhancement programming is to cover any programmatic cost associated with enhancements identified by MEDMR's once the new 100% reporting requirement is put in place. MEDMR anticipates that after the compliance enhancement is in place, other features that will be a large time saver for MEDMR will be identified.

Indirect costs: The Department of Marine Resources has an indirect cost rate of 34.3%; however, our Commissioner has authorized this proposal use the lower rate of 30%. See Attachment 3 for the Negotiated Indirect Cost Agreement. These indirect funds are a necessity to help defray and offset the administrative costs associated with the ASMFC's directive to increase MEDMR's lobster reporting from its current rate to 100%. These indirect monies are utilized to help cover the administrative costs not covered directly by this grant proposal and help offset any burden MEDMR assumes with fulfilling their ASMFC reporting requirements.

Cost Summary: FY21 Managing 100% Lobster Harvester Reporting in Maine (Proposal Withdrawn at Operations Fall Meeting)				
5/1/2021 - 4/30/2022				
Personnel ^A		Description		Cost
2 Marine Resource Specialist II (to be created)		full time position for 12 months	2 @ \$37,766	\$75,532.00
1 Office Associate II (Alice Mayberry)		full time position for 12 months	1 @ \$45,553.89	\$45,553.89
1 Office Associate II (to be created)		full time position for 12 months	1 @ \$33,289	\$33,289.00
			Subtotal	\$154,374.89
Fringe Benefits ^A				
2 Marine Resource Specialist II (to be created)		Includes health, dental, workers comp, FICA, life insurance and retirement	2 @ \$21,652	\$43,304.00
1 Office Associate II (Alice Mayberry)			1 @ \$26,116.81	\$26,116.81
1 Office Associate II (to be created)			1 @ \$19,085	\$19,085.00
			Subtotal	\$88,505.81
			Total Personnel	\$242,880.70
Travel				
1 vehicle ^B		1 car * \$377.34/mo * 12 mo		\$4,528.08
Mileage fee		1 car * 1,150 mi per mo * \$.1533/mi * 12 mo		\$2,115.54
Toll allowance		Estimated		\$200.00
5 Overnight stays ^C		6* \$150/night		\$900.00
Per diem (includes extended days)		(6 overnights @ \$65/day & 36 extended days @ \$24/day)		\$1,254.00
			Total Travel	\$8,997.62
Supplies				
Year labels		1,000 labels (500/box * 2 boxes * \$13.95/box)		\$27.90
Folder labels		1,000 labels (500/box * 12 boxes * \$24.50/box)		\$49.00
AAK Color Coded Folders ^D		1,000 folders (50/box * 120 boxes * \$23/box)		\$460.00
Other				
Printing and binding of harvester report forms		1000 logbooks * \$2.50 per logbook		\$2,500.00
Postage for logbooks		Mail 1000 logbooks * \$5.00 per logbook		\$5,000.00
Postage for info packets and letters		(\$0.55*3250 compliance letters)		\$1,787.50
Maine LEEDS enhancement programming				\$28,000.00
Telecommunication charges ^E		5 phones * \$40/mo * 12 mo		\$2,400.00
			Total Supplies	\$40,224.40
			Subtotal	\$49,222.02
Total Direct Costs				\$292,102.72
Indirect Costs (15%)				\$43,815.41
Total Award to DMR				\$335,918.13
A: Cost includes salary and benefits, which are dictated by contract with State of Maine and are non-negotiable.				
B: All state agencies must rent vehicles through state's Central Fleet Agency which is non-negotiable. Vehicle costs include the following services and costs: maintenance, repairs, insurance, and gasoline.				
C: DMR staff meet with and train harvesters how to electronically report to DMR and/or NMFS.				
D: AAK Color Coded Folders are folders MEDMR uses for all harvester reporting, they are reusable but will need 2 years supply eventually.				
E: One cell phone for each of the Scientist II, Scientist I (2) and Specialist II (2) working on the project.				

Partner Contribution For ACCSP Purposes

Scientist IV (7% time)	\$9,116
Scientist III (25% time)	\$25,919
Scientist II (25% time)	\$28,742
Specialist II (25% time)	\$19,788
Office Associate I (85% time)	\$66,322
Office Associate I (50% time)	\$39,013
Office Associate II (25%)	\$19,604
Mobile Harvester Reporting App Development	\$32,050
	\$240,554

Budget Narrative for FY2021 proposal (Proposal withdrawn at Operations Committee Meeting 9/2020:

Personnel and Fringe Benefits: The new positions proposed in this proposal (2 Marine Resource Specialist II and 1 Office Associate II) and current Office Associate II (currently filled by Alice Mayberry). These positions are funded full time (100%) by this award and are a Department of Marine Resources' employees. Salary and benefits for this employee are dictated by contract with the State of Maine and are non-negotiable. Benefits include retirement benefits, FICA, health insurance, dental insurance, workers compensation and life insurance. The benefits are determined by a formula the state uses which is variable dependent upon the position classification, the pay grade of the employee (e.g. the number of years the person has been employed by the State of Maine) and type of coverage the employee selects.

Travel: The Scientists and Specialists are the employees who will be travelling. The travel is for holding electronic harvester reporting workshops, visiting harvesters to install reporting software, training harvester staff how to electronically report or troubleshooting reporting problems. Staff provide harvesters with one-on-one training first via phone but then in person if individuals need further assistance with the reporting system and help troubleshoot electronic reporting problems. Travel occurs throughout the coast of Maine, although trips to the interior are unusual unless the harvester can only meet inland. These harvesters must be trained in the use of electronic reporting and in some cases a group informational setting will not be enough for some to learn how to report their landings information.

The monthly fee for the vehicle is dictated by contract with the State of Maine Central Fleet Agency; the fee is based on the type of vehicle leased, and the mileage fee is based on how many miles the car was used the previous year. Because of this, the vehicle fees between projects may differ. This project has one Nissan Rogue SUV which is a state-owned vehicle that MEDMR leases from the State of Maine Central Fleet Agency.

Occasional extended day travel or overnight stays are necessary. If multiple harvester appointments to these remote areas are made for the same day, or appointments are made for consecutive days, overnight travel may be necessary. The rates were calculated through the GSA website for posted rates.

Supplies: Filing supplies are needed each year but as more harvesters eventually shift to electronic reporting the need for filing supplies will decrease. The filing supplies include AAK folders used to store individuals log sheets, labels (year and name) and protective coatings for these labels. These are the same folders used for all of MEDMR's harvester reports and are purchased from Allied Systems Products AAK Filing system.

Other: The MEDMR will try and push electronic reporting as much as possible and will require waivers to report on paper for lobster reporting. To help cut down on costs, MEDMR will try and have harvesters print their own paper forms when necessary from the MEDMR website. We do accept forms via email, fax or U.S. mail. The bound logbook includes a carbon copy that harvesters use for their records, or to resend should the original gets lost in the mail. Many harvesters like this carbon copy feature, which is one of the main reasons why we choose to continue to purchase these bound logbooks. Cell phones for the Specialists and the Scientists are necessary for communication and safety when on travel to harvester meeting locations. Staff often needs to call NMFS or the programmer when installing software or troubleshooting reporting issues in the field. The line for Maine LEEDS enhancement programming is to cover any programmatic cost associated with enhancements identified by MEDMR's once the new 100% reporting requirement is put in place. MEDMR anticipates that after the compliance enhancement is in place, other features that will be a large time saver for MEDMR will be identified.

Indirect costs: The Department of Marine Resources has an indirect cost rate of 34.3%; however, our Commissioner has authorized this proposal use the lower rate of 15%. See Attachment 3 for the Negotiated Indirect Cost Agreement. These indirect funds are a necessity to help defray and offset the administrative costs associated with the ASMFC's directive to increase MEDMR's lobster reporting from its current rate to 100%. These indirect monies are utilized to help cover the administrative costs not covered directly by this grant proposal and help offset any burden MEDMR assumes with fulfilling their ASMFC reporting requirements.

Cost Summary: FY20 Managing 100% Lobster Harvester Reporting in Maine
3/1/2020 - 2/28/2021

Personnel^A		Description		Cost
	1 Marine Resource Scientist II (to be created)	full time position for 12 months	1 @ \$50,079	\$50,079
	2 Marine Resource Scientist I (to be created)	full time position for 12 months	2 @ \$45,340	\$90,680
	2 Marine Resource Specialist II (to be created)	full time position for 12 months	2 @ \$37,849	\$75,698
	2 Office Specialist I Supervisory (to be created)	full time position for 12 months	2 @ \$36,234	\$72,468
	1 Office Specialist I (to be created)	full time position for 12 months	1 @ \$34,424	\$34,424
	1 Office Associate II (to be created)	full time position for 12 months	1 @ \$31,741	\$31,741
			Subtotal	\$355,090
Fringe Benefits^A				
	1 Marine Resource Scientist II (to be created)	Includes health, dental, workers comp, FICA, life insurance and retirement		\$32,551
	2 Marine Resource Scientist I (to be created)			\$58,942
	2 Marine Resource Specialist II (to be created)			\$49,204
	2 Office Specialist I Supervisory (to be created)			\$47,104
	1 Office Specialist I (to be created)			\$22,376
	1 Office Associate II (to be created)			\$20,632
			Subtotal	\$230,809
			Total Personnel	\$585,899
Travel				
	1 vehicle ^B	1 car * \$188.67/mo * 12 mo		\$2,264
	Mileage fee	1 car * 1,000 mi per mo * \$.1533/mi * 12 mo		\$1,840
	Toll allowance	Estimated		\$100
	5 Overnight stays ^C	5* \$150/night		\$750
	Per diem (includes extended days)	(5 overnights + 5 extended days) * \$65/day		\$650
			Total Travel	\$5,604
Supplies				
	Filing Supplies	folders, folder labels, year labels		\$500
Other				
	Printing and binding of harvester report forms	1000 logbooks * \$2.50 per logbook		\$2,500
	Postage for logbooks	Mail 1000 logbooks * \$4.75 per logbook		\$2,375
	Postage for info packets and letters	(\$0.50*3250 compliance letters)		\$1,625
	Software (Adobe DC Professional)	8 copies at \$329.65/copy		\$2,637
	Technology (equipment, licenses)			\$500
	Enhancements to Maine LEEDS system	Automate compliance for electronic reporting		\$40,000
	Telecommunication charges ^D	5 phones * \$40/mo * 12 mo		\$2,400
			Total Supplies	\$52,537
			Subtotal	\$58,141
	Total Direct Costs			\$644,039
	Indirect Costs (30%)			\$193,212
	Total Award to DMR			\$837,251

A: Cost includes salary and benefits, which are dictated by contract with State of Maine and are non-negotiable.

B: All state agencies must rent vehicles through state's Central Fleet Agency which is non-negotiable. Vehicle costs include the following services and costs: maintenance, repairs, insurance, and gasoline.

C: DMR staff meet with and train harvesters how to electronically report to DMR and/or NMFS.

D: One cell phone for each of the two specialists, one each for the two scientists and one scientist II working on the project.

Partner Contribution For ACCSP Purposes

Scientist IV (7% time)	\$9,115
Scientist III (25% time)	\$24,542
Scientist II (25% time)	\$26,854
Specialist II (25% time)	\$18,710
Office Associate I (85% time)	\$47,568
Office Associate I (50% time)	\$37,191
Office Associate II (50%)	\$32,813
Office Associate II (15%)	\$10,531
Office Associate II (15%)	\$9,750
Office Associate II (15%)	\$8,513
Office Associate II (100%)	\$65,626
<u>Mobile Harvester Reporting App Development</u>	<u>\$150,000</u>

\$441,211

Budget Narrative for FY2020 proposal:

Personnel and Fringe Benefits: The new positions proposed in this proposal (1 Marine Resource Scientist II, 2 Marine Resource Scientist I, 2 Marine Resource Specialist II, 2 Office Specialist I Supervisory, 1 Office Specialist I and 1 Office Associate II). These positions are funded full time (100%) by this award and are a Department of Marine Resources' employees. Salary and benefits for this employee are dictated by contract with the State of Maine and are non-negotiable. Benefits include retirement benefits, FICA, health insurance, dental insurance, workers compensation and life insurance. The benefits are determined by a formula the state uses which is variable dependent upon the position classification, the pay grade of the employee (e.g. the number of years the person has been employed by the State of Maine) and type of coverage the employee selects.

Travel: The Scientists and Specialists are the employees who will be travelling. The travel is for holding electronic harvester reporting workshops, visiting harvesters to install reporting software, training harvester staff how to electronically report or troubleshooting reporting problems. Staff provide harvesters with one-on-one training first via phone but then in person if individuals need further assistance with the reporting system and help troubleshoot electronic reporting problems. Travel occurs throughout the coast of Maine, although trips to the interior are unusual unless the harvester can only meet inland. These harvesters must be trained in the use of electronic reporting and in some cases a group informational setting will not be enough for some to learn how to report their landings information.

The monthly fee for the vehicle is dictated by contract with the State of Maine Central Fleet Agency; the fee is based on the type of vehicle leased, and the mileage fee is based on how many miles the car was used the previous year. Because of this, the vehicle fees between projects may differ. This project has one Nissan Rogue SUV which is a state-owned vehicle that MEDMR leases from the State of Maine Central Fleet Agency.

Occasional extended day travel or overnight stays are necessary. If multiple harvester appointments to these remote areas are made for the same day, or appointments are made for consecutive days, overnight travel may be necessary. The rates were calculated through the GSA website for posted rates.

Supplies: Filing supplies are needed each year but as more harvesters eventually shift to electronic reporting the need for filing supplies will decrease. The filing supplies include folders used to store individuals log sheets, labels (year and name) and protective coatings for these labels.

Other: The MEDMR will try and push electronic reporting as much as possible and will require waivers to report on

paper for lobster reporting. To help cut down on costs, MEDMR will try and have harvesters print their own paper forms when necessary from the MEDMR website. We do accept forms via email, fax or U.S. mail. The bound logbook includes a carbon copy that harvesters use for their records, or to resend should the original gets lost in the mail. Many harvesters like this carbon copy feature, which is one of the main reasons why we choose to continue to purchase these bound logbooks. Cell phones for the Specialists and the Scientists are necessary for communication and safety when on travel to harvester meeting locations. Staff often needs to call NMFS or the programmer when installing software or troubleshooting reporting issues in the field. All Landings Program staff use Adobe DC Pro to enter or audit paper reports or .PDF's that have been received electronically. The cost for this program has been set by our OIT Department. The line for Maine LEEDS enhancement is the programmatic cost to streamline MEDMR's compliance with harvester data submitted to SAFIS. MEDMR will need to create a SQL Server table to pull any data submitted by a harvester from the ACCSP Warehouse with Maine permits and flip their Maine LEEDS compliance record to submitted. This feature will be a large time saver for MEDMR and will save at least one full-time staff position.

Indirect costs: The Department of Marine Resources has an indirect cost rate of 30%. See Attachment 3 for the Negotiated Indirect Cost Agreement. These indirect funds are a necessity to help defray and offset the administrative costs associated with the ASMFC's directive to increase MEDMR's lobster reporting from its current rate to 100%. The anticipated increase to ~300,000 new harvester records and overall ~700,000 records (dealer and harvester) supplied to ACCSP's Data Warehouse will account for roughly 42% of all reports stored in the Data Warehouse. The increase in harvester reports received by MEDMR will be roughly 538%. These indirect monies are utilized to help cover the administrative costs not covered directly by this grant proposal and help offset any burden MEDMR assumes with fulfilling their ASMFC reporting requirements.

Attachment 1. Project History

Fund Year	Title	Cost	Extension through	Actual dates funding covered	Results
2020	FY20- Managing 100% Lobster Harvester Reporting in Maine	\$336,120	Apr-22	May 2020 – Apr 2021	Start preparing for MEDMR to move from mandatory 10% lobster harvester reporting to 100% lobster. Work on enhancement to Maine LEEDS program and continue work on app development.
2021	FY21- Managing 100% Lobster Harvester Reporting in Maine	\$335,918.13 (withdrawn)		May 2021 – Apr 2022	Continue preparations for MEDMR to move from mandatory 10% lobster harvester reporting to 100% lobster. Finalize enhancement to Maine LEEDS program, outreach with industry and rolling out MEDMR's offline harvester application built by Bluefin Data LLC.
2022	FY22- Managing 100% Lobster Harvester Reporting in Maine	\$335,662		May 2022 – Apr 2023	Final preparations before 100% reporting requirement is implemented in January 2023. Continue with outreach, audits and implementing reporting requirements.
2023	FY23- Managing 100% Lobster Harvester Reporting in Maine	No Proposal Submitted		May 2023 – Apr 2024	100% reporting requirement implemented in January 2023. Continue with outreach, audits and implementing reporting requirements. Utilized funds from FY20 and FY22 before asking for more funds.
2024	FY24- Managing 100% Lobster Harvester Reporting in Maine	\$335,591		May 2024 – Apr 2025	Continue with 100% reporting requirement. Assist with GARFO harvesters once NOAA implements 100% lobster reporting in April 2024. Continue with outreach, audits and implementing reporting requirements.
2025	FY25- Managing 100% Lobster Harvester Reporting in Maine	\$335,591		May 2025 – Apr 2026	Continue with 100% reporting requirement. Continue with outreach, audits and implementing reporting requirements.

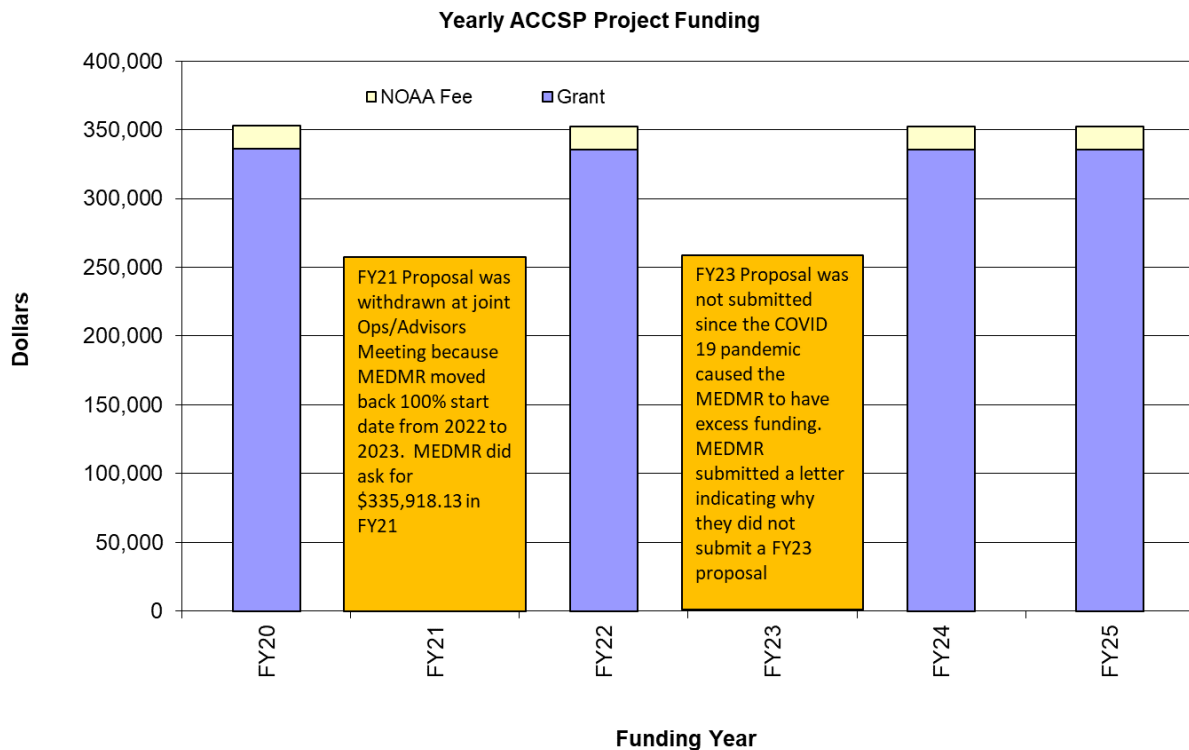


Figure 4. Project Funding History

Attachment 2: Negotiated Indirect Cost Agreement and Letter of Acknowledgement

U.S. Department of Commerce
Office of Acquisition Management – Grants Management Division
1401 Constitution Ave., NW, HCHB Rm 6412
Washington, DC 20230, Attn: Indirect Cost Program

CERTIFICATE OF INDIRECT COSTS

This is to certify that I have reviewed the indirect cost rate proposal prepared and maintained herewith and to the best of my knowledge and belief:

- (1) All costs included in this proposal dated 06/08/2023 to establish indirect cost billing rates for July 1, 2023 through June 30, 2024 are allowable in accordance with the requirements of the federal awards to which they apply and 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards". This proposal does not include any costs which are unallowable as identified in the applicable federal cost principles. For example, advertising contributions and donations, bad debts, entertainment costs or fines and penalties.
- (2) All costs included in this proposal are properly allocable to federal awards on the basis of a beneficial or causal relationship between the expenses incurred and the agreements to which they are allocated in accordance with applicable requirements. Further, the same costs that have been treated as indirect costs have not been claimed as direct costs. Similar types of costs have been accounted for consistently and the Federal Government will be notified of any accounting changes that could affect the rate.
- (3) The indirect cost rate calculated within the proposal is 33.70%, which was calculated using an indirect cost rate base type of Modified Total Direct Costs. The calculations were based on actual costs from fiscal year July 1, 2021 thru June 30, 2022 to obtain a federal indirect cost billing rate for fiscal year beginning July 1, 2023.

Subject to the provisions of the Program Fraud Civil Remedies Act of 1986, (31 USC 3801 et seq.), the False Claims Act (18 USC 287 and 31 USC 3729); and the False Statement Act (18 USC 1001), I declare to the best of my knowledge that the foregoing is true and correct.

Organization Name: State of Maine, Department of Marine Resources

CFO Signature: Gilbert M. Bilodeau Date: 6/8/23

Name/Title Authorized Official: Gilbert M. Bilodeau, Director, Natural Res Ser Ctr

Dept Head Signature: Patrick Keliher Date: 6/5/23

Name/Title Authorized Official: Patrick Keliher, Commissioner



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ACQUISITION AND GRANTS OFFICE

August 10, 2020

Mr. Brandon Flint
Managing Staff Accountant
Natural Resources Service Center
155 State House Station
Augusta, ME 04333

Dear Mr. Flint:

This letter supersedes the previous letter dated May 1, 2020 concerning this subject, and confirms that no further action is required under Department of Commerce Financial Assistance Standard Term & Condition A.05, Indirect Costs. Pursuant to OMB regulation 2 CFR Part 200, your organization is not required to submit an indirect cost allocation proposal or plan narrative to its cognizant agency. These plans are to be prepared and retained at the local government level. OMB regulation 2 CFR Part 200, Appendix V Il, par. D states, in part:

All department or agencies of the governmental unit desiring to claim indirect costs under Federal awards must prepare an indirect cost rate proposal and related documentation to support the costs. The proposal and related documentation must be retained for audit in accordance with the records retention requirements contained in the Common Rule.

When actual costs are known at the end of your fiscal year, you are required to account for differences between estimated and actual indirect costs by means of either: a) making an adjustment to the next year's indirect cost rate calculation to account for carry-forward (the difference between the estimated costs used to establish the rate and the actual costs of the fiscal year covered by the rate); or b) making adjustments to the costs charged to the various programs based on the actual charges calculated. Since OMB regulation 2 CFR Part 200 requires the independent auditor to determine the allowability of both direct and indirect costs, the organization's indirect cost charges will be subject to audit.

It is important to note that your organization is still required to submit to the Grants Management Division of the National Oceanic and Atmospheric Administration (NOAA) an annual Certificate of Indirect Costs. NOAA acknowledges receipt of your most recent certificate, submitted March 18, 2020 pertaining to your rate of 34.30% for Fiscal Year 2020. Additionally, your request to move to a two-year fixed rate with carry-forward schedule, is approved. Given this, the aforementioned indirect cost rate of 34.30% is also applicable for Fiscal Year 2021.

The submission of the Certificate of Indirect Costs is due to our office within six (6) months after the close of your fiscal year.

A copy of this letter will be retained in your official award file. If you have any questions, please contact Lamar Revis at 301.628.1308 or at lamar.revis@noaa.gov. Thank you.

Sincerely,

Lamar Dwayne Revis

Arlene Simpson Porter
Director, Grants Management Division



Department of Marine Resources

INTEROFFICE MEMORANDUM

TO: FILE
FROM: PATRICK KELIHER, COMMISSIONER
SUBJECT: RATE USED FOR COST ALLOCATION
DATE: 5/31/2024

In accordance with OMB Circular A-87, the Department of Marine Resources has submitted to the U.S. Department of Commerce a departmental cost allocation plan for use during state fiscal year 2024 ending June 30, 2024. The indirect cost rate proposal is 33.70%. I am authorizing the use of the lesser rate of **30%** to be used during this period.

ACCSP
"Managing 100% Lobster Harvester Reporting in Maine"
(May 1, 2025 – April 30, 2026)

A handwritten signature in blue ink, appearing to read "P. C. Keliher", is written over a horizontal line. To the right of the signature, the date "5/31/24" is handwritten in blue ink.

Patrick C. Keliher
Commissioner

Date

Attachment 4: Authority to Suspension Licenses for Delinquent Reporters

An Act to Improve the Quality of the Data Used in the Management of Maine's Fisheries

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 12 MRSA §6301, sub-§6 is enacted to read:

6. Ownership identified. If a license issued under chapter 625 is issued to a firm, corporation or partnership, the individual who owns the highest percentage of that firm, corporation or partnership must be identified on the license application. When 2 or more individuals own in equal proportion the highest percentages of a firm, corporation or partnership, each of those owners must be identified.

Sec. 2. 12 MRSA §6412 is enacted to read:

§ 6412. Suspension of license or certificate for failure to comply with reporting requirements

1. Authority to suspend. The commissioner, in accordance with this section, may suspend a license or certificate issued under this Part if the holder of the license or certificate fails to comply with reporting requirements established by rule pursuant to section 6173. A license or certificate suspended under this section remains suspended until the suspension is rescinded by the commissioner. The commissioner shall rescind a suspension when:

A. The commissioner determines and provides notice to the holder of the suspended license or certificate that the holder has come into compliance with the reporting requirements established by rule pursuant to section 6173; and

B. The holder pays to the department a \$25 administrative fee.

When a suspension is rescinded, the license or certificate is reinstated. Until the suspension is rescinded, the holder of the suspended license or certificate is not eligible to hold, apply for or obtain that license or certificate.

2. Process for suspension for failing to comply with weekly reporting. If the commissioner determines that a person who holds a license or certificate under this Part has failed to comply with a weekly reporting requirement established by rule pursuant to section 6173, the commissioner shall notify the person at the telephone number provided on the application for the license or certificate and by e-mail if an e-mail address is provided on the application. If the license or certificate holder has not complied with the reporting requirements within 2 days after the commissioner has provided the notice, the commissioner shall mail a notice of suspension to the license or certificate holder by certified mail or the notice must be served in hand. The notice must:

A. Describe the information that the license or certificate holder is required to provide pursuant to this Part that the department has not received; and

B. State that, unless all the information described in paragraph A is provided to the department or the license or certificate holder requests a hearing, the license or certificate will be suspended in 3 business days after the license or certificate holder's receipt of the notice.

If the license or certificate holder has not complied with the reporting requirements or requested a hearing within 3 business days after receipt of the notice, the commissioner shall suspend the license or certificate.

3. Process for suspension for failing to comply with monthly reporting. If the commissioner determines that a person who holds a license or certificate under this Part has failed to comply with a monthly reporting requirement established by rule pursuant to section 6173, the commissioner shall notify the person at the telephone number provided on the application for the license or certificate and by e-mail if an e-mail address is provided on the application. If the license or certificate holder has not complied with the reporting requirements within 45 days after the commissioner has provided the notice, the commissioner shall mail a notice of suspension to the license or certificate holder by certified mail or the notice must be served in hand. The notice must:

A. Describe the information that the license or certificate holder is required to provide pursuant to this Part that the department has not received; and

B. State that, unless all the information described in paragraph A is provided to the department or the license or certificate holder requests a hearing, the license or certificate will be suspended in 3 business days after the license or certificate holder's receipt of the notice.

If the license or certificate holder has not complied with the reporting requirements or requested a hearing within 3 business days after receipt of the notice, the commissioner shall suspend the license or certificate.

4. Hearing. A license or certificate holder receiving a written notice of suspension pursuant to this section may request a hearing on the suspension by contacting the department within 3 business days of receipt of the notice. If a hearing is requested, the suspension is stayed until a decision is issued following the hearing. The hearing must be held within 3 business days of the request, unless another time is agreed to by both the department and the license or certificate holder. The hearing must be conducted in the Augusta area. The hearing must be held in accordance with:

A. Title 5, section 9057, regarding evidence, except the issues are limited to whether the license or certificate holder has complied with reporting requirements established by rule pursuant to section 6173;

B. Title 5, section 9058, regarding notice;

C. Title 5, section 9059, regarding records;

D. Title 5, section 9061, regarding decisions, except the deadline for making a decision is one business day after completion of the hearing; and

E. Title 5, section 9062, subsections 3 and 4, regarding a presiding officer's duties and reporting requirements, except that notwithstanding Title 5, section 9062, subsection 1, the presiding officer must be the commissioner or the commissioner's designee.

Summary of Proposal for ACCSP Ranking

Proposal Type: Maintenance Proposal

Primary Program Priority and Percentage of Effort to ACCSP modules:

Catch and Effort (10 points): 100% of licensed lobster (and 12 other fisheries) must report trip level information. Most of these reports will be electronic.

Data Delivery Plan (2 Points): All electronic data through the MEDMR offline application will be submitted into SAFIS daily. All data entered into MEDMR's MARVIN database and will be sent to the ACCSP Data Warehouse on at least a bi-annual basis after all data have been thoroughly audited.

Project Quality Factors:

Regional Impact (5 Points): all partners will benefit, as all the data collected will be uploaded to ACCSP. Regional management organizations, such as ASMFC, will benefit from the trip level information from Maine. Partners may also benefit from the technologies/procedures tested in the new offline MEDMR mobile application. MEDMR is currently contracted with Bluefin Data LLC to build a mobile app for harvesters to use to meet the 100% lobster reporting requirement mandated in ASMFC Addendum XXVI. MEDMR is currently paying for all start-up costs associated with this project and shared findings with ACCSP. Partners will be able to utilize (the developer might charge a support fee) this application once built if they so choose.

Funding transition plan (4 Points): MEDMR will continue to look for other funding sources; however, with the timeline of 100% lobster reporting being pushed forward from the date set in Addendum XXVI, MEDMR will need help to achieve the requirements coming in the next few years. MEDMR is funding the development of an offline mobile harvester reporting application that will meet MEDMR and GARFO reporting requirements. MEDMR will pay for the ongoing monthly maintenance fee associated with this program. MEDMR has already secured an additional one-time \$600K in additional federal funding and a one time 2 million ARPA fund for this project. Currently, the MEDMR does not have any plans to require electronic reporting for all fisheries but intends on pushing electronic reporting. Geographical restrictions prevent all harvesters from having reliable high-speed internet access at this time.

In-kind Contribution (3 Points): the partner contribution is listed on page 16. MEDMR's in-kind contribution is approximately 35%.

Improvement in Data Quality/Timeliness (4 Points): MEDMR can audit data at a more detailed level, including checking harvester reported data against dealer reported data. MEDMR encourages reporting timeliness through outreach with harvesters and is working with Marine Patrol to ensure industry understands the importance of submitting accurate and timely information. The Maine State Legislature also passed law that authorizes license suspensions for those who fail to report on time which has improved the timeliness and quality of the data submitted for the fisheries that utilize this law.

Potential secondary module as a by-product (in program priority order) (3 points): The offline application that MEDMR envisions will be able to eventually link up with certain dealer reports and accept tracker data which will revolutionize the way spatial data could be used to determine many effort fields and dealer and harvester reports are matched up.

This project has also been used to help with socio-economic programs such as disaster relief from flooding in the winter of 2024. Having access to landings data has proven to be useful in town/working waterfront planning.

Impact on Stock Assessment (3 Points): Regional management organizations which carry out stock assessments will benefit from the detailed landings data reported from Maine. This information is used in stock assessments for many species that are managed by regional agencies.

Properly Prepared (1 Points): MEDMR followed ACCSP guidelines and pertinent documents when preparing this proposal.

Merit (3 points): This proposal allows MEDMR to comply with mandatory ASMFC requirements. The MEDMR currently provides more data to the data warehouse than any other state and accounts for over 30% of all records landed in the Data Warehouse. MEDMR are always looking for ways to collect data in a timely and efficient manner.

Summary of Proposal for ACCSP Ranking (Abridged Ranking Process)

Achieved Goals: MEDMR did not receive FY20 funding for this grant from NOAA until June 8, 2020. MEDMR also pulled back our FY21 and FY23 proposals with the understanding that the FY22 would be treated as a maintenance proposal since our new data to require 100% lobster reporting shifted from January 1, 2022 to January 1, 2023. MEDMR has already completed the Maine LEEDS enhancement to automate electronic reporting compliance. The offline harvester application (VESL) was rolled out to industry members in 2021. The VESL software was GARFO approved in 2021 and has been submitting data directly to SAFIS since.

Data Delivery Plan (2 Points): All electronic data through the MEDMR offline application will be submitted into SAFIS daily. All data entered into MEDMR's MARVIN database and will be sent to the ACCSP Data Warehouse on at least a bi-annual basis after all data have been thoroughly audited.

Level of Funding (1 Point): In FY20 MEDMR asked for \$837,251 and was awarded \$336,162. In FY22 MEDMR asked for and received \$335,620.77. In FY24 MEDMR is asking for \$335,591.06.

Properly Prepared (1 Points): MEDMR followed ACCSP guidelines and pertinent documents when preparing this proposal.

Merit (3 points): This proposal allows MEDMR to comply with mandatory ASMFC requirements. The MEDMR currently provides more data to the data warehouse than any other state and accounts for over 30% of all records landed in the Data Warehouse. MEDMR are always looking for ways to collect data in a timely and efficient manner.

Robert B. Watts II
Maine Department of Marine Resources
(207) 633-9412
[**rob.watts@maine.gov**](mailto:rob.watts@maine.gov)

June 2023

PROFILE:

- Knowledge of Maine and federal regulations pertaining to commercial fishing and associated reporting requirements through working with the Department of Marine Resources and the National Marine Fisheries Service.
- Knowledgeable of Maine's fishing industries and how they operate.

EDUCATION:

B.S. Marine Science, Maine Maritime Academy, Castine, ME 2002

EMPLOYMENT EXPERIENCE:

May 2016 – Present Marine Resource Scientist III
Maine Department of Marine Resources
West Boothbay Harbor, ME

- Manages daily operations of Maine's Commercial Landings Program, which collects, compiles and distributes commercial fishery statistics for Maine's commercial fisheries.
- Supervises Landings Program personnel.
- Maintain Microsoft Access databases for licensing information, compliance and data entry.
- Communicates with industry regarding reporting requirements, monitors reporting compliance and works with the licensing division in order to ensure all mandatory reporting requirements are met and licenses are issued accordingly.
- Oversees DMR's landings suspension authority and process.
- Oversees DMR's swipe card reporting program.
- Oversees MEDMR's MARVIN database.
- Maintains dealer and harvester auditing databases.
- Oversaw Maine's Interactive Voice Response (IVR) reporting program (IVR reporting ended in 2019)
- Serves as key contact for Maine commercial landings information.
- Promotes Maine's partnership with Atlantic Coastal Cooperative Statistical Program (ACCSP), serving on the Operations Committee, Commercial Technical Committee, Information Systems Technical Committee, Standard Codes Committee and Outreach Committee; working to bring the Landings Program into compliance with ACCSP standards.

Jan 2014 – Jan 2016 Marine Resource Scientist III (Acting Capacity)
June 2015 – Apr 2016 Marine Resource Scientist II
Maine Department of Marine Resources
West Boothbay Harbor, ME

- Manages daily operations of Maine's Commercial Landings Program, which collects, compiles and distributes commercial fishery statistics for Maine's commercial fisheries.
- Supervises Landings Program personnel.
- Maintain Microsoft Access databases for licensing information, compliance and data entry.
- Communicates with industry regarding reporting requirements, monitors reporting compliance and works with the licensing division in order to ensure all mandatory reporting requirements are met and licenses are issued accordingly.

- Oversees DMR's landings suspension authority and process.
- Oversees DMR's swipe card reporting program.
- Maintains dealer and harvester auditing databases.
- Oversees Maine's Interactive Voice Response (IVR) reporting program.
- Serves as key contact for Maine commercial landings information.
- Promotes Maine's partnership with Atlantic Coastal Cooperative Statistical Program (ACCSP) through serving on the Commercial Technical Committee, Information Systems Technical Committee and Outreach Committee; working to bring the Landings Program into compliance with ACCSP standards.

Feb 2012 – Apr 2015 Marine Resource Scientist I
Maine Department of Marine Resources

- Manages daily operations of Maine's Commercial Landings Program, which collects, compiles and distributes commercial fishery statistics for Maine's commercial fisheries.
- Supervises five Landings Program personnel.
- Maintain Microsoft Access databases for licensing information, compliance and data entry.
- Communicates with industry regarding reporting requirements, monitors reporting compliance and works with the licensing division in order to ensure all mandatory reporting requirements are met and licenses are issued accordingly.
- Oversees outreach to industry.
- Maintains dealer and harvester auditing databases.
- Oversees Maine's Interactive Voice Response (IVR) reporting program.
- Serves as key contact for Maine commercial landings.

Oct 2007 – Jan 2012 Marine Resource Specialist II
Maine Department of Marine Resources

- Oversee daily operations of the harvester landings program.
- Notify new harvesters about reporting requirements.
- Maintain databases used for data audits and data entry.
- Monitor reporting compliance database and notifies harvesters if they are delinquent.
- Supervise two Landings Program personnel.
- Oversees IVR reporting.
- Prepare data requests from various sources

Jul 2005 – Oct 2007 Marine Resource Specialist I
Maine Department of Marine Resources

- Interviewed marine recreational anglers all over the Maine coast to help determine fish stocks. Identified, weighed, measured and recorded fish caught by anglers.
- Created publications, updated regulation handouts and updated the recreational fishing website as needed.

May 2001 – Jun 2005 Conservation Aid
Maine Department of Marine Resources

- Interviewed marine recreational anglers all over the Maine coast to help determine fish stocks. Identified, weighed, measured and recorded fish caught by anglers.
- Acted as a liaison between the State of Maine and the recreational anglers, answered anglers questions about fishing regulations.

Jesica Waller
Maine Department of Marine Resources
(207) 350-6440
Jesica.d.waller@maine.gov

June 2023

PROFILE:

- Knowledge and oversight of the State of Maine's programs to research, monitor, and compile data from commercial and recreational coastal marine fisheries. This includes coordination of research plans across programs and with external research partners.
- Knowledgeable of Maine's fishing industries and how they operate.
- Knowledgeable about state and federal funding structures to support this work.

EDUCATION:

B.S. Marine and Freshwater Biology, University of New Hampshire, Durham, NH 2009

M.S. Marine Biology, University of Maine, Orono, ME 2016

EMPLOYMENT EXPERIENCE:

July 2022 – Present Marine Resource Scientist IV
Maine Department of Marine Resources
West Boothbay Harbor, ME

- Division Director for the Division of Biological Monitoring and Assessment
- Oversee fishery monitoring and research for commercially important marine species
- Lead research around emerging fisheries and climate related topics
- Supervise a staff of 25 MEDMR researchers and maintain external collaborations
- Hire, train, and supervise research staff and students supported by MEDMR programs
- Write research proposals to federal agencies to obtain funding for MEDMR programs
- Coordinate the drafting and submission of all federal grant reporting requirements
- Conduct research and analyses, and write and review reports on timely research questions
- Work with diverse stakeholders to coordinate research in support of MEDMR priorities
- Represent MEDMR on state, regional, and federal research panels
- Advise senior staff on issues ranging from new research findings to funding opportunities
- Co-lead the MEDMR Environmental Monitoring Program and expand program capacity

March 2018 – July 2022 Marine Resource Scientist III
Maine Department of Marine Resources
West Boothbay Harbor, ME

- Lead question-based lobster research to support the management of the Maine lobster fishery
- Build research collaborations, submit proposals for funding and author research publications
- Co-develop the MEDMR wet lab and serve as the point person for biosecurity
- Represent MEDMR at regional meetings, research conferences, and the Maine Climate Council
- Coordinated the MEDMR Lobster Research Collaborative and organized quarterly meetings

Jan. 2017 – March 2018 Research Technician
Bigelow Laboratory for Ocean Sciences
East Boothbay Harbor, ME

- Designed and performed laboratory and field experiments for grant funded projects
- Contributed to authorship of peer-reviewed publications and federal/state grant proposals
- Led field and lab-based data collection for multiple projects with no supervision
- Supervised and developed research projects for summer undergraduate interns

**Sept. 2014 – Dec. 2016 Graduate Student and Canadian American Center Fellow
University of Maine (UMaine), Darling Marine Center
Walpole, ME**

- Thesis title: Linking Rising $p\text{CO}_2$ and Temperature to the Larval Development, Physiology and Gene Expression of the American Lobster (*Homarus americanus*)
- Completed all thesis research and coursework and secured fellowship funding annually
- Led the authorship and submission of grants to support travel and advanced sample analysis
- Presented research at international meetings
- Supervised undergraduate interns at UMaine and Bigelow Laboratory for Ocean Sciences
- Contributed to the data collection and analysis efforts on two lobster biology projects
- Assisted Dr. Rhian Waller in teaching SMS 480 “Invertebrates of the Maine Coast”
- Supervised and instructed 25 undergraduate students during weekly lab sessions

Selected Publications

1. Ellertson, A. A., **Waller, J. D.**, Pugh, T. L., & Bethoney, N. D. (2022). Differences in the size at maturity of female American lobsters (*Homarus americanus*) from offshore Southern New England and eastern Georges Bank, USA. *Fisheries Research*, 250, 106276.
2. McClenachan, L., Record, N. R., & **Waller, J. D.** (2022). How do human actions affect fisheries? Differences in perceptions between fishers and scientists in the Maine lobster fishery. *FACETS*, 7(1), 174-193.
3. **Waller, J. D.**, Reardon, K. M., Caron, S. E., Jenner, B. P., Summers, E. L., & Wilson, C. J. (2021). A comparison of the size at maturity of female American lobsters (*Homarus americanus*) over three decades and across coastal areas of the Gulf of Maine using ovarian staging. *ICES Journal of Marine Science*, 78(4), 1267-1277.
4. **Waller, J.D.**, Reardon, K.M., Caron, S.E., Masters, H.M., Summers, E.L. & Wilson, C.J. (2019). Decrease in size at maturity of female American lobsters *Homarus americanus* (H. Milne Edwards, 1837) (Decapoda: Nephropidae) over a 50-year period in Maine, USA. *Journal of Crustacean Biology*, 39(4), 509-519.
5. **Waller, J. D.**, Wahle, R. A., McVeigh, H., & Fields, D. M. (2017). Linking rising $p\text{CO}_2$ and temperature to the larval development and physiology of the American lobster (*Homarus americanus*). *ICES Journal of Marine Science*, 74(4), 1210-1219.

Synergistic Activities

2021-present *Steering Committee Member*, Maine Ocean and Coastal Acidification Partnership
 2021-present *Advisory Committee Member*, Dalhousie University (PhD student, M. Rampal)
 2021-present *Reviewer*, *Journal of Crustacean Biology*
 2019-present *Agency support*, Maine Climate Council, Coastal and Marine Working Group
 2019-present *Reviewer*, *Canadian Journal of Fisheries and Aquatic Sciences*
 2018-2022 *Coordinator*, Maine Department of Marine Resources Lobster Research Collaborative
 2017-present *Reviewer*, *ICES Journal of Marine Science*