National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Office of Science and Technology

STATEMENT OF WORK
1/9/2017

Marine Recreational Information Program,
Recreational Fishing Effort Survey
2018 - 2022

Contents

I. Introduction and Background

A. Purpose and Nature of the Procurement

The National Marine Fisheries Service of the National Oceanic and Atmospheric Administration (NOAA Fisheries), United States Department of Commerce, requires a contract to administer the Marine Recreational Information Program (MRIP) Fishing Effort Survey, a mail survey that monitors recreational saltwater fishing activity by residents of coastal states. This procurement includes a base period of ten months to collect data for three independent, two-month reference waves, beginning with wave 1 (January/February), 2018 and continuing through wave 3 (May/Jun), 2018. At a minimum, the survey will collect information about recreational saltwater fishing activity in 16 states along the Atlantic coast and Gulf of Mexico. Optional tasks may extend the geographic coverage and performance period by an additional 54 months to complete data collection for additional reference waves and provide optional survey deliverables.

The MRIP Fishing Effort Survey (FES) was implemented in the states along the Atlantic coast and Gulf of Mexico in 2015. The FES is a cross-sectional, self-administered household mail survey. The survey samples from residential address frames supplemented with information from state databases of licensed saltwater anglers and collects information about saltwater fishing activity that occurred during two-month reference waves. Survey results are used to estimate the total number of people who participated in saltwater fishing as well as the number of shore and private boat fishing trips taken during each wave.

B. Enabling Legislation

Collection of recreational fishing data is necessary to fulfill statutory requirements of Section 303 of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1852 et. seq.), Section 401 of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act, and to comply with Executive Order 12962 on Recreational Fisheries. Section 303 (a) of the Magnuson-Stevens Act specifies data and analyses to be included in Fishery Management Plans (FMPs), as well as pertinent data that shall be submitted to the Secretary of Commerce under the plan.

II. Scope of Work

1. Fishing Effort Survey (FES)

1.1 Project Management

Under this task, the contractor shall perform its general project management functions. The contractor shall propose a project management approach that will ensure timely, efficient, and cost-effective data collection, processing, analysis, and reporting. The proposal shall describe the project organization and staffing requirements and include a detailed schedule of project tasks, milestones and deliverables.

The contractor shall participate in a project kickoff meeting within one month of contract award to review project requirements and discuss issues related to conduct of the work. Unless otherwise requested, the meeting shall be conducted at the NOAA Fisheries headquarters office in Silver Spring, MD and shall include all relevant project staff, as mutually agreed upon by the contractor and NOAA staff.

In addition to the kickoff meeting, the contractor's project manager or other designated personnel shall participate in bi-weekly conference calls with NOAA staff. These meetings will last one hour or less and be used to discuss the current status of the project and address any management, design or data collection issues. The contractor shall include a written summary of any operational or management decisions made during the meeting in the project wave reports (Section 1.10).

1.2 Sampling

The current sampling approach is described in FES Wave Reports (Attachment A). The sampling design shall support state-level estimation of key survey variables, including the total number of shore and private boat recreational fishing trips taken each wave. The FES will utilize address-based samples (ABS) within coastal states to identify anglers and collect information about recent recreational saltwater fishing activity. Within each coastal state, sampling is stratified by sub-state region, which is defined by geographic proximity to the coast. Generally, counties with borders that are within 25 miles of the coast are in the "coastal" stratum and all other counties are in the "non-coastal" stratum. Please note that all counties in Rhode Island, Connecticut, Delaware and Florida are considered coastal for the purposes of this study, and the designation of coastal counties in North Carolina, South Carolina, Georgia, Alabama, Mississippi and Louisiana changes throughout the year (FES Wave Reports identify geographic strata for each wave). NOAA Fisheries may redefine sub-state regions to improve the efficiency of the survey, but this will not impact overall sampling levels.

For each wave, state and sub-state region, the contractor shall create or purchase, from a qualified address list vendor, a sample of residential addresses that will allow for sub-sampling as described below. The contractor shall propose a sampling approach that ensures each sample is representative of all household addresses within the study area and describes the source of

sample, as well as the frequency of updates to the source ABS frame. Addresses on the do-not-mail list shall be included in the sample. The proposal shall describe procedures that account for any mailing issues that arise when sampling from ABS frames (e.g. houses under construction or renovation, households with multiple addresses, vacation addresses, group quarters, throwback addresses, etc.), as well as any suggestions to use supplemental frame information to assist in the weighting for nonresponse. The contractor shall acquire the ABS sample no more than 30 days prior to the end of each wave (i.e., approximately three weeks before the first mailing for each wave).

ABS samples are supplemented by matching the addresses to lists of licensed saltwater anglers. State license lists are derived from databases of anglers who were licensed to participate in saltwater fishing in the study area between the beginning of each wave and the time the lists are compiled. NOAA Fisheries will provide state-specific lists of licensed anglers to the contractor approximately three weeks prior to the initial mailing for each wave. The lists will include a unique address ID, telephone number, state, county, address (address lines 1 and 2) and zip code of residence. Each wave, the contractor shall match, by exact address and/or telephone number, the ABS sample for each state to that state's license list. The current frame matching program is included as Attachment B. Augmenting the ABS sample with fishing license information allows households with and without licensed anglers to be sampled at different rates. The contractor shall deliver in SAS format any programs developed for frame matching according to the delivery schedule.

After the matching has been completed, the contractor shall sub-sample within each stratum at a rate needed to achieve target sample sizes, which are estimated based upon precision goals and response rates achieved in prior years. The estimated target sample sizes for 2018 (total number of addresses retained after subsampling and included in the initial survey mailing) for each stratum (state*wave*sub-state region*license match) are provided in Table 1. Historical ABS sampling requirements, as well as the historical number of households with licensed anglers are provided in the FES Wave Reports. The contractor may use this information to estimate initial ABS sampling requirements for future survey administrations. Actual ABS sampling requirements will vary from year-to-year and wave-to-wave depending upon the actual number of households with licensed anglers at the time of sampling.

Within a state and wave, samples are optimally allocated among strata (sub-state region and license match) based upon costs and results from prior years – the sampling distribution provided in Table 1 is based upon an optimum allocation. NOAA Fisheries will reassess sample allocations each year and may redistribute sample among waves, states and sub-state regions to further optimize sampling, but this will not impact overall, annual target sample sizes.

Table 1. Targeted sample size by state, sub-state region and license matching status for 2018. Sample allocations will be reassessed each year.

State	Sub-State	License Match	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
AL	Coastal	Unmatch	1,670	783	763	1,869	671	2,493
AL	Coastal	Match	197	406	225	394	510	327
AL	Non-Coastal	Unmatch	1,538	504	573	35	597	33
AL	Non-Coastal	Match	36	60	60	49	77	60
CT	Coastal	Unmatch	0	5,409	1,534	1,330	1,697	4,387
CT	Coastal	Match	0	711	252	206	227	820
DE	Coastal	Unmatch	0	3,384	1,698	742	1,163	2,687
DE	Coastal	Match	0	231	181	295	1,038	868
FL	Coastal	Unmatch	1,034	698	726	850	742	641
FL	Coastal	Match	206	236	337	235	294	245
GA	Coastal	Unmatch	0	5,566	2,499	1,603	1,178	1,030
GA	Coastal	Match	0	700	225	434	847	513
GA	Non-Coastal	Unmatch	0	8,411	2,290	2,434	41	1,842
GA	Non-Coastal	Match	0	374	124	104	319	300
ME	Coastal	Unmatch	0	0	2,919	1,365	966	0
ME	Coastal	Match	0	0	382	263	657	0
ME	Non-Coastal	Unmatch	0	0	52	28	264	0
ME	Non-Coastal	Match	0	0	28	56	79	0
MD	Coastal	Unmatch	0	3,881	1,894	1,692	2,306	2,832
MD	Coastal	Match	0	391	337	357	215	429
MD	Non-Coastal	Unmatch	0	123	208	148	134	421
MD	Non-Coastal	Match	0	46	83	38	19	29
MA	Coastal	Unmatch	0	3,172	3,441	784	1,363	1,776
MA	Coastal	Match	0	290	176	252	148	1,137
MA	Non-Coastal	Unmatch	0	199	75	228	109	27
MA	Non-Coastal	Match	0	43	46	23	57	21
MS	Coastal	Unmatch	990	689	998	497	1,925	1,364
MS	Coastal	Match	471	380	152	106	492	278
MS	Non-Coastal	Unmatch	979	477	360	327	30	32
MS	Non-Coastal	Match	35	131	34	51	81	75
NH	Coastal	Unmatch	0	0	5,614	1,039	2,519	0
NH	Coastal	Match	0	0	297	237	543	0
NH	Non-Coastal	Unmatch	0	0	26	60	35	0
NH	Non-Coastal	Match	0	0	66	25	31	0
NJ	Coastal	Unmatch	0	6,129	2,836	2,282	2,281	4,017
NJ	Coastal	Match	0	195	98	59	124	219
NJ	Non-Coastal	Unmatch	0	218	102	73	38	97
NJ	Non-Coastal	Match	0	19	16	25	17	25

State	Sub-State	License Match	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
NY	Coastal	Unmatch	0	10,096	12,750	2,636	3,067	5,920
NY	Coastal	Match	0	208	176	109	160	219
NY	Non-Coastal	Unmatch	0	24	61	164	197	362
NY	Non-Coastal	Match	0	223	71	25	16	27
NC	Coastal	Unmatch	2,943	1,544	1,806	2,575	1,361	1,913
NC	Coastal	Match	730	528	326	285	436	365
NC	Non-Coastal	Unmatch	643	1,827	215	480	31	1,617
NC	Non-Coastal	Match	423	393	80	50	98	237
RI	Coastal	Unmatch	0	3,478	1,001	2,378	4,181	8,171
RI	Coastal	Match	0	338	134	115	105	261
SC	Coastal	Unmatch	0	3,527	531	265	820	3,151
SC	Coastal	Match	0	816	415	344	392	516
SC	Non-Coastal	Unmatch	0	524	130	550	32	1,143
SC	Non-Coastal	Match	0	334	126	167	157	49
VA	Coastal	Unmatch	0	3,423	4,518	1,996	1,850	2,256
VA	Coastal	Match	0	1,172	399	252	612	226
VA	Non-Coastal	Unmatch	0	1,070	113	139	3,440	90
VA	Non-Coastal	Match	0	77	43	37	46	19

1.3 Update Survey Materials

The current FES questionnaire, cover letters and postcards are included in the FES Wave Reports (FES Report 20163 is the most current version). We do not anticipate substantive changes to the materials, although they will need to be updated to reflect current dates, states, reference periods, contact information, etc. In addition, the contractor may propose modifications to improve the content of the materials. The contractor shall work with NOAA staff to update and finalize survey materials as needed.

The contractor shall be responsible for translating survey materials into its preferred system for forms design and formatting all materials into layouts suitable for a mail survey. The contractor shall deliver electronic, PDF versions of final mail survey materials (envelope, cover letters, postcard, questionnaires) at least two weeks prior to their mailing for the first data collection wave. For subsequent waves, the contractor shall deliver electronic versions of the survey materials at least two weeks prior to their mailing only if substantive revisions have been made. In addition, the contractor shall deliver 5 hard copies of the complete survey packet as they would be mailed according to the delivery schedule.

1.4 Survey Administration

The survey is a single phase, mail out/mail back, self-administered questionnaire. The contractor shall be responsible for all aspects of survey administration, including printing, assembling, mailing, receipting, and processing all survey materials.

The contractor shall administer the survey for two-month reference waves. The data collection schedule for the base and optional periods is included in Table 2. The data collection period for each wave begins one week prior to the end of the wave with the initial survey mailing. The initial mailing shall include a cover letter stating the purpose of the survey, a survey questionnaire, a business reply envelope (BRE), and a $2.00 prepaid cash incentive (two $1.00 bills). The contractor shall send a thank you/reminder postcard to all sampled addresses one week following the initial mailing. In addition, the contractor shall make automated, telephone reminder calls for sample units for which a telephone number can be identified or is known, also one week following the initial mailing. The contractor shall complete a follow-up mailing, including a second questionnaire, a nonresponse conversion letter, and a BRE to all nonrespondents three weeks after the initial mailing. All mailings shall be delivered through regular, first-class mail. Data collection shall continue for thirteen weeks after the initial mailing. Questionnaires returned after thirteen weeks shall be scanned, but shall not be included in final survey datasets.

Table 2 Data collection schedule for Fishing Effort Survey.

	Reference Period					
Task/Event	**Wave 1, 2018**	**Wave 2, 2018**	**Wave 3, 2018**	**Wave 4, 2018 (Optional)**	**Wave 5, 2018 (Optional)**	**Wave 6, 2018 (Optional)**
Wave begins	1/1/18	3/1/18	5/1/18	7/1/18	9/1/2018	11/1/2018
Contractor acquires ABS sample	2/1/18	4/2/18	6/1/13	8/1/18	10/1/18	12/1/18
NOAA provides state license databases to contractor	2/6/18	4/5/18	6/6/18	8/6/18	10/5/18	12/6/18
Initial survey mailing	2/22/18	4/24/18	6/25/18	8/27/18	10/25/18	12/26/18
Wave ends	2/28/18	4/30/18	7/1/18	8/31/18	10/31/18	12/31/18
Postcard / telephone reminder	3/1/18	5/1/18	7/2/18	9/3/18	11/1/18	1/2/19
Follow-up mailing	3/15/18	5/15/18	7/16/18	9/17/18	11/15/18	1/16/19
Preliminary wave data files	3/28/18	5/28/18	7/30/18	9/28/18	11/30/18	1/28/19
Final wave data files	5/28/18	7/30/18	9/28/18	11/30/18	1/28/19	3/28/19
	Reference Period					
Task/Event	**Wave 1, 2019 (Optional)**	**Wave 2, 2019 (Optional)**	**Wave 3, 2019 (Optional)**	**Wave 4, 2019 (Optional)**	**Wave 5, 2019 (Optional)**	**Wave 6, 2019 (Optional)**
Wave begins	1/1/19	3/1/19	5/1/19	7/1/19	9/1/19	11/1/19
Contractor acquires ABS sample	2/1/19	4/1/19	6/1/19	8/1/19	10/3/19	12/1/19
NOAA provides state license databases to contractor	2/5/19	4/5/19	6/5/19	8/5/19	10/4/19	12/5/19
Initial survey mailing	2/22/19	4/24/19	6/24/19	8/26/19	10/25/19	12/26/19
Wave ends	2/28/19	4/30/19	6/30/19	8/31/19	10/31/19	12/31/19
Postcard reminder mailing	3/1/19	5/1/19	7/1/19	9/2/19	11/1/19	1/2/20
Follow-up mailing	3/15/19	5/15/19	7/15/19	9/16/19	11/15/19	1/16/20
Preliminary wave data files	3/28/19	5/28/19	7/29/19	9/30/19	11/28/19	1/28/20
Final wave data files	5/28/19	7/29/19	9/30/19	11/28/19	1/28/20	3/30/20

	Reference Period					
Task/Event	**Wave 1, 2020 (Optional)**	**Wave 2, 2020 (Optional)**	**Wave 3, 2020 (Optional)**	**Wave 4, 2020 (Optional)**	**Wave 5, 2020 (Optional)**	**Wave 6, 2020 (Optional)**
Wave begins	1/1/20	3/1/20	5/1/20	7/1/20	9/1/20	11/1/20
Contractor acquires ABS sample	2/1/20	4/1/20	6/1/20	8/1/20	10/1/20	12/1/20
NOAA provides state license databases to contractor	2/5/20	4/6/20	6/5/20	8/5/20	10/5/20	12/7/20
Initial survey mailing	2/24/20	4/24/20	6/24/20	8/25/20	10/26/20	12/28/20
Wave ends	2/29/20	4/30/20	6/30/20	8/31/20	10/31/20	12/31/20
Postcard reminder mailing	3/2/20	5/1/20	7/1/20	9/1/20	11/2/20	1/4/21
Follow-up mailing	3/16/20	5/15/20	7/15/20	9/15/20	11/16/20	1/18/21
Preliminary wave data files	3/30/20	5/28/20	7/28/20	9/28/20	11/30/20	1/28/21
Final wave data files	5/28/20	7/28/20	9/28/20	11/30/20	1/28/21	3/29/21
	Reference Period					
Task/Event	**Wave 1, 2021 (Optional)**	**Wave 2, 2021 (Optional)**	**Wave 3, 2021 (Optional)**	**Wave 4, 2021 (Optional)**	**Wave 5, 2021 (Optional)**	**Wave 6, 2021 (Optional)**
Wave begins	1/1/21	3/1/21	5/1/21	7/1/21	9/1/21	11/1/21
Contractor acquires ABS sample	2/1/21	4/1/21	6/1/21	8/2/21	10/1/21	12/1/21
NOAA provides state license databases to contractor	2/5/21	4/6/21	6/7/21	8/6/21	10/5/21	12/6/21
Initial survey mailing	2/22/21	4/23/21	6/24/21	8/25/21	10/26/21	12/23/21
Wave ends	2/28/21	4/30/21	6/30/21	8/31/21	10/31/21	12/30/21
Postcard reminder mailing	3/1/21	4/30/21	7/1/21	9/1/21	11/2/21	12/30/22
Follow-up mailing	3/15/21	5/14/21	7/15/21	9/15/21	11/16/21	1/18322
Preliminary wave data files	3/29/21	5/28/21	7/28/21	9/28/21	11/29/21	1/28/22
Final wave data files	5/28/21	7/28/21	9/28/21	11/29/21	1/28/22	3/28/22

	Reference Period					
Task/Event	**Wave 1, 2022 (Optional)**	**Wave 2, 2022 (Optional)**	**Wave 3, 2022 (Optional)**	**Wave 4, 2022 (Optional)**	**Wave 5, 2022 (Optional)**	**Wave 6, 2022 (Optional)**
Wave begins	1/1/22	3/1/22	5/1/22	7/1/22	9/1/22	11/1/22
Contractor acquires ABS sample	2/1/22	4/1/22	6/1/22	8/1/22	10/3/22	12/1/22
NOAA provides state license databases to contractor	2/7/22	4/5/22	6/6/22	8/5/22	10/5/22	12/6/22
Initial survey mailing	2/22/22	4/25/22	6/24/22	8/25/22	10/25/22	12/23/22
Wave ends	2/28/22	4/30/22	6/30/22	8/31/22	10/31/22	12/31/22
Postcard reminder mailing	3/1/22	5/2/22	7/1/22	9/1/22	11/1/22	12/30/23
Follow-up mailing	3/15/22	5/16/22	7/15/22	9/15/22	11/15/22	1/13/23
Preliminary wave data files	3/28/22	5/30/22	7/28/22	9/28/22	11/28/22	1/30/23
Final wave data files	5/30/22	7/28/22	9/28/22	11/28/22	1/30/23	3/28/23

The contractor shall provide a per-unit cost that covers all aspects of survey administration, including the cost of the case incentive. Contractors shall base their cost estimate on the following:

- An estimated initial mailing of 139,975 surveys for the base period (Wave 1 – Wave 3, 2018), distributed among 3 waves and 16 states. Within a state and wave, sample is optimally allocated among sub-strata as described above and included in Table 1. NOAA Fisheries will reassess sample allocations each year and may redistribute sample among waves, states and sub-state regions to further optimize sampling, but this will not impact overall sampling levels for each ordering period,
- Estimated sample sizes for optional ordering periods are as follows:
    - 2018, Wave 4-Wave 6: 129,564
    - 2019, Wave 1-Wave 6: 269,539
    - 2020, Wave 1-Wave 6: 269,539
    - 2021, Wave 1-Wave 6: 269,539
    - 2022, Wave 1-Wave 6: 269,539
    -
- Through wave 3, 2016, the FES achieved an overall weighted response rate (RR1) of approximately 25% prior to the second survey mailing and final response rates of 32%. Final, unweighted response rates for each wave, state and stratum are included in FES Wave Reports,
- Each questionnaire will be printed on a single 11X17 sheet of paper, front and back,
- Cover letters will be printed on letterhead quality stock with a color NOAA logo,
- Frequently Asked Questions will be printed on the reverse side of the cover letter,
- Questionnaires will be mailed in a large envelope that can accommodate an 8.5X11 cover letter without folding,
- Cover photographs will be in color.

1.5 Data Entry

The contractor shall be responsible for converting returned questionnaires into an electronic database format using optical scanning technology. The contractor shall maintain scanned images of returned questionnaires for delivery to NOAA Fisheries according to the delivery schedule. Questionnaires that have been damaged or are otherwise inappropriate for scanning shall be manually reviewed by contractor personnel. If such questionnaires are complete and legible, the contractor shall be responsible for manually key-entering survey information. Questionnaires that are illegible or missing key information shall be coded as such. The contractor shall develop an appropriate coding scheme for sample dispositions with input from NOAA Fisheries.

1.6 Data Editing

Generally, the contractor shall deliver raw, minimally edited survey data. The current data processing procedures are described in FES Wave Reports, and the current data processing SAS program is included as Attachment C. The contractor shall work with NOAA Fisheries staff to update and revise editing procedures as needed. The contractor shall deliver data editing and data processing programs in SAS format according to the delivery schedule.

1.7 Survey Weighting

The contractor shall develop sample weights to apply to the survey data. The weights are necessary to produce population estimates for various survey measures. Weighting shall include base weights that reflect the inverse of the inclusion probabilities, nonresponse weights that account for unit nonresponse by households in different nonresponse weighting classes, and post-stratified weights that reflect the most current population control totals for the number of households (e.g., most current control totals from the American Community Survey). The current survey weighting plan is described in the FES Wave Reports, and the weighting SAS program is included as Attachment D. The contractor shall work with NOAA staff before, during and after data collection to identify appropriate weighting classes for nonresponse adjustment. All stages of weights shall be included in both preliminary and final survey datasets. The contractor shall deliver in SAS format any programs developed to produce sample weights.

1.8 Data Files

The contractor shall delivery fully weighted preliminary and final wave datasets as described in Section III (Deliverables). All survey data shall be delivered as SAS (version 9 or higher) datasets. Naming and coding conventions for the 2018-2022 FES are includes as Attachment E. The Contractor shall work with NOAA staff to make any changes to final dataset content, coding, formatting and naming conventions for all data collection components. All data shall be transferred to NOAA staff through NOAA's secure online data transfer system according to the delivery schedule.

1.9 Quality Control Procedures

The contractor shall propose and implement a set of quality control procedures that will ensure the collection of high quality data through all stages of data collection. The contractor shall closely monitor sampling, printing, mailing, data capture, and data processing in order to ensure that all data collection procedures are adhered to. Problems that are identified shall be addressed immediately and consistently.

Quality control procedures shall address each of the following: Sampling, frame matching, printing, preparing mailing packages, receipting of returned surveys, data entry, weighting and data file production. The proposed approach shall specify the procedures and management controls that will be utilized to ensure a high quality data collection.

1.10 Reporting

The contractor shall prepare and deliver bi-weekly electronic progress reports describing data collection and survey management activities. At a minimum, reports should document, by stratum, the distribution of sample cases among standard AAPOR dispositions (AAPOR, 2000). NOAA staff may provide additional specifications for reporting requirements.

The contractor shall deliver wave reports describing data collection and data processing activities completed during the wave. Wave reports shall be delivered at the conclusion of each wave according to the delivery schedule. At a minimum, wave reports shall include:

1. A description of data collection activities for each wave, including the data collection schedule, a description of any problems encountered or deviations from the data collection design, and changes made during the wave.
2. Overall and by state and stratum:
    a. Total sample allocation,
    b. Total number of completed surveys,
    c. Unweighted response rates,
3. Overall and by state and stratum, distribution of final dispositions for all sample units (AAPOR standard definitions).
4. Results of the data editing and corrective actions
5. Expenses incurred and budgeted by task.

NOAA staff may provide additional specifications for reporting requirements

2. (Optional) Hawaii Fishing Effort Survey

The contractor shall administer the MRIP Fishing Effort Survey in Hawaii. With the exception of frame augmentation, all sampling, data collection, sample weighting, quality control and data processing procedures for the HI FES shall be consistent with the base FES, and, if ordered, all HI FES data shall be included in base FES deliverables. Currently, state angler license information is not available in HI. However, NOAA Fisheries may choose to augment ABS samples in HI with other sources, such as boater registration information. Furthermore, state

angler license information may become available at some point in the future. The contractor shall work with NOAA staff to supplement ABS samples in HI if and when auxiliary sources of information become available. Until then, ABS samples in HI will not be augmented with state saltwater license information, and the state will not be stratified into smaller geographic regions. Consequently, the contractor shall select a simple random sample of addresses within HI for each reference wave. The contractor shall ensure that ABS samples are representative of residential addresses in HI. NOAA Fisheries may redefine sub-state regions and reassess sample allocations to improve the efficiency of the survey, but this will not impact overall sampling levels in HI. Table 3 provides the number of sampled addresses (i.e., initial number of initial survey mailings) for the HI FES.

3. (Optional) Puerto Rico Fishing Effort Survey

The contractor shall administer the MRIP Fishing Effort Survey in Puerto Rico. With the exception of frame augmentation, all sampling, data collection, sample weighting and data processing procedures for the Puerto Rico FES shall be consistent with the base FES, and, if ordered, all Puerto Rico FES data shall be included in base FES deliverables. Currently, state angler license information is not available in Puerto Rico. However, state angler license information may become available at some point in the future. The contractor shall work with NOAA staff to supplement ABS samples in Puerto Rico if and when auxiliary sources of information become available. Until then, ABS samples in Puerto Rico will not be augmented with state saltwater license information, and the state will not be stratified into smaller geographic regions. Consequently, the contractor shall select a simple random sample of addresses within Puerto Rico for each reference wave. To the extent possible, the contractor shall validate sampled addresses prior to administering the survey. The contractor shall ensure that ABS samples are representative of residential addresses in Puerto Rico. NOAA Fisheries may redefine sub-state regions and reassess sample allocations to improve the efficiency of the survey, but this will not impact overall sampling levels in Puerto Rico. The contractor shall include both English and Spanish versions of the FES questionnaire in all survey mailings. Table 3 provides the number of sampled addresses (i.e., initial number of initial survey mailings) for the Puerto Rico FES.

4. (Optional) Louisiana Fishing Effort Survey

The contractor shall administer the MRIP Fishing Effort Survey in Louisiana. All sampling, data collection, sample weighting and data processing procedures shall be consistent with the base FES, and, if ordered, all Louisiana FES data shall be included in base FES deliverables. NOAA Fisheries staff will provide the contractor with Louisiana license data according to the base FES schedule (i.e. LA will be included in license data provided to the contractor by NOAA Fisheries). Table 3 provides the targeted number of initial survey mailings by year, wave, sub-state stratum (coastal and non-coastal) and license status (matched and unmatched).

5. (Optional) Texas Fishing Effort Survey

The contractor shall administer the MRIP Fishing Effort Survey in Texas. All sampling, data collection, sample weighting and data processing procedures shall be consistent with the base

FES, and, if ordered, all Texas FES data shall be included in base FES deliverables. NOAA Fisheries staff will provide the contractor with Texas license data according to the base FES schedule (i.e. TX will be included in license data provided to the contractor by NOAA Fisheries). Table 3 provides the targeted number of initial survey mailings by year, wave, sub-state stratum (coastal and non-coastal) and license status (matched and unmatched).

Table 3. Targeted sample size by state, sub-state region and license matching status for optional tasks 2 (Hawaii Fishing Effort Survey), 3 (Puerto Rico Fishing Effort Survey), 4 (Louisiana Fishing Effort Survey) and 5 (Texas Fishing Effort Survey). Sample allocations will be reassessed each year.

State	Sub-State	License Match	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
LA	Coastal	Unmatch	1,309	712	471	1,297	619	469
LA	Coastal	Match	638	777	716	300	343	842
LA	Non-Coastal	Unmatch	290	390	135	166	83	150
LA	Non-Coastal	Match	126	127	120	93	27	178
TX	Coastal	Unmatch	1,257	5,303	1,367	721	1,367	1,257
TX	Coastal	Match	384	532	631	733	631	384
TX	Non-Coastal	Unmatch	1,227	342	219	1,300	219	1,227
TX	Non-Coastal	Match	108	368	129	180	129	108
HI	Coastal	Unmatch	1,800	1,800	1,800	1,800	1,800	1,800
PR	Coastal	Unmatch	1,800	1,800	1,800	1,800	1,800	1,800

6. (Optional) Additional FES Sampling

NOAA Fisheries may choose to order additional sample for the Fishing Effort Survey. The estimated quantity for the additional sample may be up to an additional 30% of the estimated quantities for line items.

7. (Optional) Research and Development

NOAA Fisheries may choose to conduct experiments to examine the impacts of modest design changes on survey response and survey measures. Specifically, research may evaluate survey pre-notification letters, additional survey mailings, alternative reporting modes and modifications to the format and content of survey questionnaires. NOAA Fisheries may provide more specific requirements and request pricing for this optional research and development tasks following award.

8. (Optional) Pre-notification Letters

NOAA Fisheries may choose to include survey pre-notification letters in the FES design. NOAA Fisheries will provide more specific requirements and request pricing for this optional task following award.

9. (Optional) Additional Survey Mailing

NOAA Fisheries may choose to include an additional survey mailing in the FES design. NOAA Fisheries will provide more specific requirements and request pricing for this optional task following award.

III. Deliverables

Survey deliverables for base and optional tasks are described below. The schedule of deliverables is included as Table 4.

1. Frame matching programs: Programs, in SAS, developed to match ABS sample records to license frames.

2. Mail survey materials: The contractor shall deliver for all base and optional data collections, electronic, PDF copies of final mail survey materials, including the questionnaire, cover letters, refusal conversion letters and postcards at least two weeks prior to their mailing for the first wave of data collection. The contractor shall deliver mail survey materials at least two weeks prior to mailing for subsequent waves only if revisions are made to the materials. Five hard copies of all mail survey materials shall be delivered at the conclusion of data collection for the first wave. Hard copies shall be delivered for subsequent waves only if substantial changes are made to the materials.

3. Automated data editing programs: Programs, in SAS, developed to identify and correct questionable survey values. Data editing programs for optional data collection tasks shall be delivered if different from the programs developed for the base Fishing Effort Survey.

4. Preliminary wave data files: The contractor shall deliver preliminary SAS datasets that include all collected survey data four weeks after the conclusion of each reference period. Data files shall include a record for every sampled unit, regardless of whether or not a unit was successfully contacted and/or participated in the survey. Preliminary datasets shall include all completed questionnaires that were returned within three weeks of the conclusion of the reference period and will require the development of preliminary weights (nonresponse weights and final post-stratified weights). **This will provide 1 week to process returned questionnaires (data entry, editing, weighting, etc.) and deliver preliminary data.** Preliminary data files shall be delivered for all base and optional data collection tasks.

5. Final wave data files: Data collection for mail survey treatments shall be terminated twelve weeks following the conclusion of each reference period. The contractor shall deliver final SAS datasets that include all collected survey data thirteen weeks after the conclusion of each reference period. The contractor shall adjust nonresponse and post-stratified weights accordingly between preliminary and final data. The contractor shall scan questionnaires that are returned after thirteen weeks, but they will not be included in survey datasets. Final data files shall be delivered for all base and optional data collection tasks.

6. Sample weighting programs: Programs, in SAS, developed to calculate survey weights, including nonresponse adjustment weights and final, post-stratified weights. Sample weighting programs for optional data collection tasks shall be delivered if different from the programs developed for the base Fishing Effort Survey.

7. Scanned questionnaires: The contractor shall deliver electronic, scanned images of all returned questionnaires along with each reference period's final survey data, thirteen weeks following the conclusion of each reference period. The contractor shall deliver scanned images for all base and optional data collection tasks.

8. Progress reports: The contractor shall prepare and deliver bi-weekly electronic progress reports describing data collection and survey management activities. Summaries of data collection activities for optional data items shall be included in the progress reports for the base Fishing Effort Survey.

9. Wave reports: The contractor shall prepare and deliver wave reports along with each wave's final survey data, thirteen weeks following the conclusion of each reference period. Summaries of optional data collection tasks shall be included in base wave reports.

Table 4. Schedule of deliverables for task 1 (Base Recreational Fishing Effort Survey) and optional tasks 2 (Hawaii Fishing Effort Survey), 3 (Puerto Rico Fishing Effort Survey), 4 (Louisiana Fishing Effort Survey) and 5 (Texas Fishing Effort Survey).

	2018					
Deliverable	**Wave 1**	**Wave 2**	**Wave 3**	**Wave 4 (Optional)**	**Wave 5 (Optional)**	**Wave 6 (Optional)**
Electronic version of survey instruments**	2/05/18					
Electronic version of survey cover letters**	2/05/18					
Electronic version of postcard reminder**	2/12/18					
Electronic version of refusal conversion letter**	2/26/18					
Frame matching programs (SAS)	3/28/18					
Preliminary wave data files	3/28/18	5/28/18	7/30/18	9/28/18	11/30/18	1/28/19
Final wave data files	5/28/18	7/30/18	9/28/18	11/30/18	1/28/19	3/28/19
Hard copy survey materials***	5/28/18					
Scanned questionnaires	5/28/18	7/30/18	9/28/18	11/30/18	1/28/19	3/28/19
Data Editing Program (SAS)	5/28/18					
Sample Weighting Program (SAS)***	5/28/18					
Wave report	5/28/18	7/30/18	9/28/18	11/30/18	1/28/19	3/28/19
Progress reports	Bi-weekly					
	2019					
Deliverable	**Wave 1 (Optional)**	**Wave 2 (Optional)**	**Wave 3 (Optional)**	**Wave 4 (Optional)**	**Wave 5 (Optional)**	**Wave 6 (Optional)**
Preliminary wave data files	3/28/19	5/28/19	7/29/19	9/30/19	11/28/19	1/28/20
Final wave data files	5/28/19	7/29/19	9/30/19	11/28/19	1/28/20	3/30/20
Scanned questionnaires	5/28/19	7/29/19	9/30/19	11/28/19	1/28/20	3/30/20
Wave report	5/28/19	7/29/19	9/30/19	11/28/19	1/28/20	3/30/20
Progress reports	Bi-weekly					

** Delivered at least two weeks prior to their implementation during first wave of data collection. Delivery of materials for subsequent waves is only required if substantive changes have been made.

***Delivered with final data files for initial reference wave. Delivery for subsequent waves is only required if substantive changes have been made.

	2020					
Deliverable	**Wave 1 (Optional)**	**Wave 2 (Optional)**	**Wave 3 (Optional)**	**Wave 4 (Optional)**	**Wave 5 (Optional)**	**Wave 6 (Optional)**
Preliminary wave data files	3/30/20	5/28/20	7/28/20	9/28/20	11/30/20	1/28/21
Final wave data files	5/28/20	7/28/20	9/28/20	11/30/20	1/28/21	3/29/21
Scanned questionnaires	5/28/20	7/28/20	9/28/20	11/30/20	1/28/21	3/29/21
Wave report	5/28/20	7/28/20	9/28/20	11/30/20	1/28/21	3/29/21
Progress reports	Bi-weekly					

	2021					
Deliverable	**Wave 1 (Optional)**	**Wave 2 (Optional)**	**Wave 3 (Optional)**	**Wave 4 (Optional)**	**Wave 5 (Optional)**	**Wave 6 (Optional)**
Preliminary wave data files	3/29/21	5/28/21	7/28/21	9/28/21	11/29/21	1/28/22
Final wave data files	5/28/21	7/28/21	9/28/21	11/29/21	1/28/22	3/28/22
Scanned questionnaires	5/28/21	7/28/21	9/28/21	11/29/21	1/28/22	3/28/22
Wave report	5/28/21	7/28/21	9/28/21	11/29/21	1/28/22	3/28/22
Progress reports	Bi-weekly					
	2022					
Deliverable	**Wave 1 (Optional)**	**Wave 2 (Optional)**	**Wave 3 (Optional)**	**Wave 4 (Optional)**	**Wave 5 (Optional)**	**Wave 6 (Optional)**
Preliminary wave data files	3/28/22	5/30/22	7/28/22	9/28/22	11/28/22	1/30/23
Final wave data files	5/30/22	7/28/22	9/28/22	11/28/22	1/30/23	3/28/23
Scanned questionnaires	5/30/22	7/28/22	9/28/22	11/28/22	1/30/23	3/28/23
Wave report	5/30/22	7/28/22	9/28/22	11/28/22	1/30/23	3/28/23
Progress reports	Bi-weekly					