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**Research Annual Report**

**National Sea Grant Metrics and Performance Measures**

At this time we are requesting a progress report for the reporting period of:

**February 1, 2022 through January 31, 2023**.

Please submit this form by **February 15, 2023**. Please answer the following questions to the best of your ability; some areas, metrics or measures may not specifically apply to your research project; if so, type N/A.

If you have any questions please contact Mia Zwolinski, Texas Sea Grant Associate Director and Research Coordinator, at mzwolinski@tamu.edu or 979-458-0449. Please submit reports to mzwolinski@tamu.edu.

Texas Sea Grant is required to submit an Annual Report to the National Sea Grant Office to highlight our Research Program’s accomplishments and impacts, and to report specific metrics and measures used to evaluate the program’s progress. Detailed definitions and guidance for the metrics and measures can be found at the following link: <https://texasseagrant.org/research-funding/award-reporting/>

**SECTION I: Project Information**

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 **Report Type** (*Annual Progress or Final*)

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**Award Number NA18OAR4170088** if funded at 2/1/2018 or later; or

 **NA22OAR4170092** if funded at 2/1/2022 or later.

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**Principal Investigator**

**Project Title**

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**Primary Focus Area** *(Healthy Coastal Ecosystems, Sustainable Fisheries & Aquaculture, Resilient Communities & Economies, Environmental Literacy & Workforce Development)*

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**SECTION II: Project Partners**

**List all of the PARTNERS ENGAGED in this Sea Grant-funded project during the current reporting period.**

*Enter N/A if not applicable.*

***Partner Scale****: Local, State, Regional, Federal, International*

***Partner Type****: Government, NGO, Industry/Business, Academic Institution, Sea Grant, Other*

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| **Program Partner** | **Partner Scale** | **Partner Type** |
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**List all Sea Grant EXTENSION STAFF OR STAKEHOLDERS ENGAGED in this Sea Grant-funded project during**

**the current reporting period.** *Enter N/A if not applicable.*

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| **Description** | **Staff or Stakeholder** |
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**Section III: Publications Reporting**

**List any PEER-REVIEWED journal articles associated with this Sea Grant-funded project during the current reporting period.** *Include titles of articles in review or in press, and an estimate on when publication will occur.*

***SUBMIT A DIGITAL COPY when receive the ACCEPTED VERSION by accessing the AirTable Form***  *link at bottom of webpage:* [*https://texasseagrant.org/research-*](https://texasseagrant.org/research-funding/award-reporting/)[*funding/award-reporting/*](https://texasseagrant.org/research-funding/award-reporting/) *Password for form: TXSG-peer-pub*

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| **Author(s)** | **Title** | **Journal** | **Date** |
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**List** **OTHER TYPES OF PUBLICATIONS (not peer-reviewed) associated with this Sea Grant-funded project during the current reporting period.**

* ***SUBMIT A DIGITAL COPY******of* OTHER TYPES OF PUBLICATIONS** *reported below* ***to: Sara Carney, Communications Manager,*** ***scarney@tamu.edu******.***
* ***Include the following acknowledgment text:*** *Publication supported in part by an Institutional Grant (****NA18OAR4170088*** *(if funded at 2/1/2018 or later;* ***NA22OAR4170092*** *if funded 2/1/2022 or later) to the Texas Sea Grant College Program from the National Sea Grant Office, National Oceanic and Atmospheric Administration, U.S. Department of Commerce; and*
* ***Where applicable, please use the Sea Grant – At Texas A&M logo*** *which can be found on our website at the following link:* [*Texas Sea Grant – At Texas A&M*](https://drive.google.com/drive/folders/17ZRX5Y5f1Y8CpIu6ZDLbeI5_gzr618zu?usp=share_link)
* *If an embargo date is necessary, please indicate that date; if not, please put N/A.*

***Types of OTHER publications****:*

1. *Technical reports or surveys*
2. *Conference symposia or workshop proceedings and summaries*
3. *Brochures, fact sheets, or research summaries*
4. *Books and monographs*
5. *Peer and non-peer-reviewed reprints*
6. *Educational documents*
7. *Maps, charts, and atlases*
8. *Handbooks, manuals, and guides*
9. *Bibliographies, directories, and indexes*
10. *Theses and dissertations*
11. *Newsletters and periodicals*
12. *Topical websites and blog sites*
13. *Non-print formats*
14. *Other*

***NOTE: PowerPoints*** *and* ***poster presentations*** *are not considered publications and do not need to be submitted.*

*A detailed list of publications that qualify can be found on our webpage under the link:*

*A list with more detailed*[*descriptions of the media that are considered publications*](https://nsgl.gso.uri.edu/download/publication_submission_policy.pdf)*.*

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| **Author(s)** | **Title** | **Other Publication Type** | **Date** |
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**Section IV: Program Metrics Reporting**

**If VOLUNTEER ACTIVITIES were conducted as part of this Sea Grant-funded project, then how many PERSON-HOURS did the volunteers work during the current reporting period? Explanation:** The estimated number of hours that citizens volunteer without payment for their time and services to help a state Sea Grant program accomplish the goals and objectives of its four‐year plan (e.g., co‐sponsored events/trainings).

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**STUDENTS SUPPORTED IN HIGHER EDUCATION**

**List all NEW STUDENTS that were supported by this Sea Grant-funded project during the current reporting period.** *A new student is any student who begins working on the project during the current reporting period. Enter N/A if not applicable.*

*Status: Undergraduate, Masters, Ph.D.*

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| **Name** | **Institution** | **Degree Type & Subject** | **Status** | **Email** |
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**List all CONTINUING STUDENTS that were supported by this Sea Grant-funded project during the current reporting period.** *A continuing student is any student who worked on the project during the previous reporting period and continues to work on the project during the current reporting period. Enter N/A if not applicable.*

*Status: Undergraduate, Masters, Ph.D.*

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**List all GRADUATING STUDENTS that were supported by this Sea Grant-funded project during the current reporting period.** *Enter N/A if not applicable.*

*Status: Undergraduate, Masters, Ph.D.*

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| **Name** | **Institution** | **Degree Type & Subject** | **Status** | **Date Graduated** | **Email** |
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**List all STUDENTS that have GRADUATED and are EMPLOYED in a job related to their degree within two years of graduation or have PURSUED an ADVANCED DEGREE. Definition:** A **job** may include traditional employment, fellowships, internships, postdocs, or pursuit of an advanced degree. *Enter N/A if not applicable.*

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| **Name** | **Institution** | **Degree Type & Subject** | **Employer/Job Description** | **Date Graduated and Employed** | **Email** |
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**How many P-12 STUDENTS were reached through Sea Grant-trained educators or directly through Sea Grant FORMAL education programs that were associated with this Sea Grant-funded project during the current reporting period? *Explanation****: The estimated number of Pre-school thru 12th grade (P‐12) students who attend a* ***Sea Grant‐sponsored*** *workshop or training (i.e., by an educator/extension agent), as well as the number of students reached by teachers who have utilized information from a Sea Grant workshop/training. Enter N/A if not applicable.*

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**How many P-12 EDUCATORS participated in Sea Grant FORMAL education programs that were associated with this Sea Grant-funded project during the current reporting period? *Explanation****: This metric indicates the number of Preschool through 12th grade (P-12) educators who attend a* ***Sea Grant-sponsored*** *workshop or training (i.e., by an educator/extension agent) and can then enhance the environmental literacy of students for years to come. Enter N/A if not applicable.*

**List the all PUBLIC or PROFESSIONAL PRESENTATIONS that resulted from this project during the current reporting period. Justification:** This metric indicates efforts to share Sea Grant research; it is the number of presentations given by Sea Grant staff or regarding Sea Grant-funded research. *Enter N/A if not applicable.*

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| **Event** | **Location** | **Date** | **Name of Presenter:****Researcher or Student** | **# of Attendees**  | **SG Sponsored (Y/N)** |
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**Section V: Program Measures Reporting**

**List any FISHERMEN, SEAFOOD PROCESSORS and AQUACULTURE INDUSTRY PERSONNEL who**

**MODIFIED THEIR PRACTICES using knowledge gained in fisheries SUSTAINABILITY and SEAFOOD SAFETY as a result of Sea Grant activities during the current reporting period.** *Enter N/A if not applicable.*

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| **Description of Activity** | **User(s)** |
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**List any COMMUNITIES that IMPLEMENTED SUSTAINABLE ECONOMIC and ENVIRONMENTAL DEVELOPMENT PRACTICES (e.g., land-use planning, working waterfronts, energy efficiency, climate change planning, smart growth measures, green infrastructure) as a result of Sea Grant activities during the current reporting period.** *Enter N/A if not applicable.*

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| **Description of Activity** | **Community** |
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**List the NUMBER of ACRES of coastal habitat PROTECTED, ENHANCED or RESTORED as a result of Sea Grant activities during the current reporting period.** *Enter N/A if not applicable.*

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| **Location** | **Description of Activity** | **Number of Acres Restored** |
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**List the RESOURCE MANAGERS who use ECOSYSTEM-BASED APPROACHES in the management of land, water, and living resources as a result of Sea Grant activities during the current reporting period.** *Enter N/A if not applicable.*

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| **Description of Activity** | **User(s)** |
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**List any INFORMAL EDUCATION PROGRAMS that resulted from this project during the current reporting period. *Justification****: This metric provides an estimate of individuals that are engaged in and actively participate in* ***Sea Grant supported*** *informal education programs thus advancing environmental literacy.*

*Informal education takes place outside the classroom and is often, but not always, site- based (e.g., at aquaria, science centers, or workshops).*

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| **Event** | **Location** | **Date** | **# of Attendees and** **# of people Engaged/Active Participants** |
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**List any Sea Grant PRODUCTS that were USED to ADVANCE ENVIRONMENTAL LITERACY and WORKFORCE DEVELOPMENT during the current reporting period.** *Enter N/A if not applicable.*

***Explanation****: This metric tracks the number of Sea Grants products that are used by stakeholders or program staff to advance environmental literacy and workforce development.*

***Justification****: This measure indicates Sea Grant efforts to develop and implement Sea Grant educational, extension, and communications products that are used by stakeholders or program staff to advance environmental literacy and workforce development.*

***NOAA defines an environmentally literate person*** *as someone who has a fundamental understanding of the systems of the natural world, the relationships and interactions between the living and non-living environment, and has the ability to understand and utilize scientific evidence to make informed decisions regarding environmental issues.*

***• Workforce development*** *describes products and services designed to prepare individuals for entry into or advancement within an industry.*

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| **Description of Item and How Used** | **Developed**  | **Used** | **List Users(s)** |
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**List any Sea Grant TOOLS, TECHNOLOGIES and INFORMATION SERVICES that are USED by our partners/customers to IMPROVE ECOSYSTEM-BASED MANAGEMENT during the current reporting period.** *Enter N/A if not applicable.*

***Explanation****: This measure tracks success in translating research findings into useful tools, technologies and information services that improve the use and management of coastal, ocean and ecosystems****.***

***Justification****: This measure communicates the number of Sea Grant products that address the management of land, water and living resources in coastal areas resulting from Sea Grant activities.*

***Ecosystem-based management*** *is an integrated approach to management that considers the entire ecosystem, including humans, and drives decisions at the ecosystem level to protect the resilience and ensure the health of the ocean and our coasts.. It requires managing ecosystems as a whole instead of separately managing individual components or uses. This includes the application of technology to coastal resource management through synthesis, integration, training, and the development of new management tools.*

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| **Description of Item and How Used** | **Developed** | **Used**  | **List Users(s)** |
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**List any COMMUNITIES that IMPLEMENTED HAZARD RESILIENCY PRACTICES to prepare for, respond to or minimize coastal hazardous events as a result of Sea Grant activities during the current reporting period.** *Enter N/A if not applicable.*

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| **Coastal Community** | **County** | **Description** | **Number of Trainings/Tech Assistance Provided** | **Hazard Resiliency Improved** |
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**List any ECONOMIC (MARKET and NON-MARKET) MONETARY IMPACTS derived from Sea Grant activities during the current reporting period.** *Enter N/A if not applicable.*

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| **Description of Activity** | **Economic Benefit ($)** |
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**List any BUSINESSES CREATED and/or SUSTAINED as a result of Sea Grant activities during the current reporting period.** *Enter N/A if not applicable.*

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| **Description of Activity** | **# of Businesses Created** | **# of Businesses Sustained** |
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**List any JOBS CREATED and/or SUSTAINED as a result of Sea Grant activities (not to include jobs currently funded by Sea Grant) during the current reporting period.** *Enter N/A if not applicable.*

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| **Description of Activity** | **# of Jobs Created** | **# of Jobs Sustained** |
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**Section VI: Leveraged Funding**

**If you used this Sea Grant-funded project to leverage funds from other sources (e.g., your university, a state agency, foundation, etc.), provide the sources of funding and amount from each source.** *Enter N/A if none.*

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| **Project Title** | **Funding Amount** | **Project Start Date** | **Project End Date** | **Project Sponsor** |
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***Accomplishment Statements or Impact Statements***

Texas Sea Grant is required to submit Accomplishment and Impact Statements for projects and activities that are funded through the program. Impact reporting is used as a tool to enhance visibility, demonstrate accountability, generate program support, and build a reputation as a focused, productive and successful program. Impacts help decision makers and constituents understand how Sea Grant programs are making a difference.

Accomplishment and Impact Statements serve as qualitative components of the annual reports that each Sea Grant Program submits to the National Sea Grant Program and to our prime sponsor, NOAA. Statements are used for grants progress reports, assessing progress made toward projects, communication products and materials, partnership building, and program evaluation. Impacts and accomplishments will be featured on the national Sea Grant website and searchable by the public. The National Sea Grant Office uses impact and accomplishment statements to communicate the value of Sea Grant's work, as talking points for Sea Grant and NOAA leadership, to inform legislative activities, and to demonstrate the ability of Sea Grant to take advantage of new opportunities. They are used to inform efforts by the NSGO to support local or regional partnership efforts at the national level. Finally, they are used as part of the full cycle evaluation of each Sea Grant Program.

**Accomplishment** **Statements** effectively describe the **key actions**, **activities** or **products** resulting from Sea Grant research, extension, education and communications work. Accomplishments are activities that are distinct from Impact Statements in that they reflect **ongoing activities or key results** that may not yet have had a significant economic, societal and/or environmental benefit/impact, but that lay the foundation for such a benefit/impact.

**Impact** **Statements** effectively describe the significant economic, societal and/or environmental **benefits/impact** of our research, extension, education and communications work. Impact statements document the **verifiable results** of Sea Grant's work and how our efforts have made a difference in the lives of coastal residents, communities and environments, help decision makers and constituents understand how our programs are making a difference, and/or enable the Sea Grant network to reflect on and improve our work. Stakeholders use what they learned from funded project to take action beyond engagement with Texas Sea Grant.

**Detailed definitions and guidance for accomplishment and impact statements** can be found at the following link: <https://seagrant.noaa.gov/Portals/1/Report%20Guidance/ImpactsAccomplishments-Webinar-Feb2019.pdf> and <https://seagrant.noaa.gov/Portals/1/Report%20Guidance/Sample_Impacts_Accomplishments-Final.pdf>.

**Please characterize and summarize in language that a lay audience can understand any accomplishments or impacts that have resulted from this Sea Grant-funded project during the current reporting period.**

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**Type of Statement** (Accomplishment or Impact)

**Title** (*PRESENT TENSE– 120 character max)* ***Concise and descriptive headline***

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**Relevance** *(WHY statement – 75 words max)* ***What societal or environmental issue*** *does this project address?*

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**Response** *(WHAT statement – 75 words max) What* ***activities occurred*** *during this reporting period to address the issue under this project's objectives?*

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**Results** *(OUTCOME statement – 75 words max)* *What r****esults*** *were* ***generated*** *during this reporting period?*

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**Recap** *(SUMMARY statement – 500 character max)* ***Overview statement*** *summarizing the relevance, response, and results on this project during this reporting period?*

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**Type of Statement** (Accomplishment or Impact)

**Title** *(****Concise and descriptive headline*** *PRESENT TENSE– 120 character max)*

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**Relevance** *(WHY statement – 75 words max)* ***What societal or environmental issue*** *does this project address?*

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**Response** *(WHAT statement – 75 words max) What* ***activities occurred*** *during this reporting period to address the issue under this project's objectives?*

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**Results** *(OUTCOME statement – 75 words max)* *What r****esults*** *were* ***generated*** *during this reporting period?*

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**Recap** *(SUMMARY statement – 500 character max)* ***overview statement*** *summarizing the relevance, response, and results on this project during this reporting period?*

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