10 January 2017

Summary of 2018 – 2021 National Performance Measures and Metrics

Introduction

The current list of national performance measures and metrics used in the NOAA National Sea Grant College Program 2014-2017 Strategic Plan will continue to be used for the NOAA National Sea Grant College Program 2018-2021 Strategic Plan.

The summary below was revised for purposes of clarity and consistency and has not changed substantively. The revisions include:
- title and text that was streamlined and harmonized with National Sea Grant Program reporting documents; and,
- concise definitions and justifications for each performance measure and metric.

The table at the end of this summary provides thetitle changes for the 2018 – 2021 National Performance Measures and Metrics.

Note: Programs may still include any state performance measures within their strategic plan at their discretion, and Planning, Implementation, and Evaluation Resources (PIER) will continue to provide a platform to track those performance measures.

Healthy Coastal Ecosystems

Number of resource managers who use ecosystem-based approaches in the management of land, water, and living resources as a result of Sea Grant activities

Explanation: This measure counts the number of managers who use ecosystem-based approaches in the management of land, water, and living resources in ocean, coastal and Great Lakes areas as a result of Sea Grant activities.

Justification: This measure indicates Sea Grant's role in informing decisions by delivering scientifically rigorous and integrated approaches to managing ocean, coastal and Great Lakes ecosystems to resource managers.

Definitions:
- Ecosystem-based approaches are integrated approaches to resource management that considers the entire ecosystem, including humans. They require managing ecosystems as a whole instead of separately managing their individual components or uses.
- NOAA's definition of ecosystem approaches to management is "management that

is adaptive, geographically specified, takes account of ecosystem knowledge and uncertainties, considers multiple external influences, and strives to balance diverse social objectives."

Reporting:
- Do report: Resource managers who use ecosystem-based approaches to management (e.g. a formal incorporation of approach into decision-making, guidance documents, etc.) can be counted. If said resource manager continues to use the approach annually, then this can be counted annually.

Number of acres of coastal habitat protected, enhanced, or restored as a result of Sea Grant activities.

Explanation: This metric tracks the number of acres involved in successful ecosystem restoration projects.

Justification: This measure highlights the area (in acres) of ocean, coastal, and Great Lakes habitat relieved of environmental stressors or returned to a more natural state through Sea Grant projects.

Definition: Coastal habitats include ocean, coastal, and Great Lakes habitats as defined in the Sea Grant legislation. Linear measures should either be converted to acres for this measure or reported as impacts or accomplishments.

Reporting:
- Do report: Sea Grant involvement that is of active participation, leadership, or provision of a service that was necessary for the restoration activity's ultimate success (e.g. Acres cleared of marine debris; Acres of dunes enhanced; Acres of stream restored through dam removal). A project with the goal of partial restoration of an ecosystem that significantly meets its goal would count toward this metric, even though the ecosystem was not completely restored. The ecosystem addressed can be of any size.
- Don't report: Indirect protection, enhancement, or restoration (e.g., through policy changes, fish stock enhancement, or habitat located downstream). These items should be highlighted as impacts or accomplishments, but not included in this measure.

Sustainable Fisheries and Aquaculture

Number of fishermen, seafood processing or aquaculture industry personnel who modify their practices using knowledge gained in fisheries sustainability and seafood safety as a

result of Sea Grant activities

Explanation: This measure tracks Sea Grant's success in having stakeholders adopt responsible fishery practices. Stakeholders who recognize the value of responsible use are more likely to adopt such practices.

Justification: This measure tracks Sea Grant's success in assisting industry personnel with the adoption of   responsible harvesting and processing techniques that improve social, economic, and ecological sustainability.

Definitions:
- Industry personnel include recreational, commercial (wild and cultured), and subsistence fishery participants, processors, and retailers**.**
- Practices include techniques, technologies and best management practices   adopted. Fisheries sustainability and seafood safety refers to any combination of the ability of the ecosystem to remain diverse and productive; the social, cultural, and economic resilience of the fishing community; personal or crew safety; and quality and safety of the seafood product.

Reporting:
- Do report: Sea Grant efforts that result in behavioral changes. Some examples include educating fishers on the benefits of using circle hooks as an alternative to j-hooks, which resulted in the decreased of bycatch and increased the survival of hooked fish. Other responsible harvesting and processing techniques and practices include: other measures to minimize bycatch and/or habitat destruction; support sustainability; aquaculturists who take steps to minimize the spread of pathogens; retailers who seek locally-sourced seafood; ensure seafood safety; fishermen who take additional precautions to remain safe at sea.
- Don't report: Interactions with industry   personnel that don't result in behavioral change. Thus, conferences, social media, or handouts on fishing practices should not count unless there is evidence of behavioral change (e.g., survey or personal communication).

Resilient Communities and Economies

Number of communities that adopt/ implement sustainable economic and environmental development practices   and policies as a result of Sea Grant activities

Explanation: This measure tracks communities that have made strides in sustainable development with Sea Grant aid – moving beyond analysis and planning and into implementation.

Justification: This measure provides the number of communities that have improved sustainability by improving   the balance of natural resource use and conservation.

Definitions:
- For the purpose of this measure, <u>communities</u> refer to local governments (cities, towns, villages, townships, counties, parish, borough, or census designated places).
- <u>Sustainable economic and environmental development   practices and policies</u> consist of actions by decision makers to support "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development).

Reporting:
- Do report: Communities that implement policy changes in land-use planning; working waterfronts; energy efficiency; climate change planning; smart growth measures; green infrastructure; etc.

Number of communities that adopt/ implement hazard resiliency practices to prepare for and respond to/ minimize   coastal hazardous events

Explanation: This metric tracks Sea Grant's contribution to communities that develop comprehensive emergency preparedness and response plans to increase their resiliency and enable them to respond effectively. Sea Grant contributes to this by building a sound knowledge base to improve forecasting capabilities, by identifying development and best management practices that reduce the vulnerability of people, buildings and businesses to coastal hazards, and by advancing ways communities can manage and recover from these events when they occur.

Justification: This measure indicates increased capacity of communities to assess vulnerability, minimize   potential impacts to ecological and human systems, and improve ability to respond to hazards and adapt to a changing climate by learning from past events and adopting risk reduction measures. Improving community resilience is a continuous effort that requires ongoing local attention and action.

Definitions:
- For the purpose of this measure, <u>communities</u> refer to local governments (cities, towns, villages, townships, counties, parish, borough, or census designated places).
- <u>Resiliency practices</u> are those that increase the capacity of a   community exposed to hazards to (1) absorb impacts while maintaining an acceptable level of functioning; (2) reduce the amount of time and financial resources needed to return to full level of functioning; or (3) adapt to future risks by learning from past disasters and adopting risk reduction measures.

- For this measure, the county of the community should also be reported along with the number of resilience trainings/technical assistance to meet NOAA requirements.

Reporting:
- Do report: Communities that adopt resilience assessments, training, local community development planning related to hazards, climate adaptation planning should be counted. Report on: 1) number of communities, 2) number of resiliency trainings/technical assistance were provided, and 3) community where hazard resiliency was improved.

Environmental Literacy and Workforce Development

Number of Sea Grant products that are used to advance environmental literacy and workforce development

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.

Definitions:
- NOAA defines an <u>environmentally literate</u> 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. <u>Workforce development</u> describes products and services designed to prepare individuals for entry into or advancement within an industry.

Reporting:
- Do report: Sea Grant products such as: homeowners' handbook; curricula, publications; or communications products used. Publications, websites, social media, webinars, and other communication products should be reported as "developed" but not "used" except when real-world application is reported via surveys, personal communication, etc. – downloads alone do not indicate use. Series of products (e.g. newsletters) that were developed or used should only be reported as one product per year.Don't report: Do not count items which are being reported in a separate performance measure or metric (e.g. HACCP, trainings, fellowships, etc.).

Number of people engaged in Sea Grant-supported informal education programs

Explanation: This metric counts the number of people who engage in Sea Grant informal education programs.

Justification: This metric provides an estimate of individuals that actively participate in Sea Grant supported informal education programs thus advancing environmental literacy.

Definition:
- <u>Engaged</u> means that the individuals are actively participating in the program.
- <u>Informal education</u> takes place outside the classroom and is often, but not always, site-based (e.g., at aquaria, science centers, or workshops).

Reporting:
- Do report: The number of people who participate in activities such as: "free-choice" learning programs.

Number of Sea Grant-supported graduates who become employed in a job related to their degree within two years of graduation

Explanation: This metric counts the number of Sea Grant-supported graduate students who become employed in a job related to their degree within two years of graduation.

Justification: This measure indicates the societal benefit Sea Grant education provides by providing the number of students who find jobs relating to their degree after graduating.

Definitions:
- A <u>job</u> may include traditional employment, fellowships, internships, postdocs, or pursuit of an advanced degree.
- <u>Sea Grant-supported graduates</u> are students that received Sea Grant federal, match, or leveraged funds.

Reporting:
- Do report: Sea Grant-supported students who accept Knauss Fellowship or a professional position; Sea Grant-supported undergraduates who pursue an advanced degree in a Sea Grant related field, such as marine population dynamics, marine biology, ocean engineering; Sea Grant supported graduates who accept positions related to their degree.

Cross Cutting

Number of Sea Grant tools, technologies and information services that are used by our partners/customers to improve ecosystem-based management.

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 Great Lakes 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 (whether research, extension, education or communications) and used by partners or customers. Only previously unreported tools, technologies and information services should be included; a specific product should not be reported in multiple years.

Definition:
- 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, our coasts and the Great Lakes. 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.
- Products are broadly defined as tools, technologies, and information services.

Reporting:
- Do report: The description of the product, the number of products that were developed, and the number of products that were used. The description of the product should include Sea Grant's role and information services. The key here is to account for tools and services utilized and applied by managers. Some examples include: stakeholder use of planning and mapping tools, sensors, observation tools, genetic markers, culturing systems, decision-support tools, or data-sharing websites. Examples of tools include: land cover data, benthic habitat maps, and environmental sensitivity index maps. Technologies refer to the transfer of new or underused approaches for addressing coastal management (e.g., remote sensing, biosensors, AUVs, genetic markers for fishery stocks) and resource development (e.g. culture systems for aquaculture, marine pharmaceuticals). This includes the application of technology to coastal resource management through synthesis, integration, training, and the development of new management tools.
- Don't report: Products should not be reported in multiple years. Only previously unreported tools, technologies, and information services should be included.

Economic and societal impacts derived from Sea Grant activities (market and non-market; jobs and businesses created or sustained)

Explanation: Society benefits from Sea Grant-supported technical assistance and innovation that lead to new businesses/jobs and sustaining existing businesses/jobs. This measure also tracks dollars that communities or businesses save due to Sea Grant assistance (i.e., providing information to help businesses make better decisions and avoid mistakes). This measure also tracks economic benefits from the development of new ocean, coastal and Great Lakes resources and technology.

Justification: This measure highlights change in economic impact - the jobs, businesses, dollars, and non-market value - that communities or businesses generate or save due to Sea Grant assistance (i.e., providing information to help communities, industries or businesses expand, make better decisions or avoid mistakes). Sea Grant supports research and provides the information and training that informs business decisions, and in some cases firms create or sustain jobs as a result. Moreover, Sea Grant activities can have positive effects on restoring, maintaining or improving environmental goods and ecosystem services, broadly defined as natural capital. Even if not valued by the market, these goods and services have economic value to humans. Provide the source for the economic impact estimates when it is available.

Definitions:
- Economic impacts measure the economic activity associated with industry, event, or policy, it may represent gross direct and indirect spending (market and non-market values), and is represents as dollar values.
- Market impacts: the amount of money that will be saved (e.g., through technological efficiencies) or generated (e.g., through sales) as a result of Sea Grant activities.
- Non-market impacts: Ecosystem service valuation methods have the potential to provide information that can be used to demonstrate the direct and indirect economic impacts of different nonmarket goods and services. The estimation of non-market economic impacts can assist managers with decision making, as well as increase the public's general understanding of the economic importance and value of habitats. A number of valuation techniques have been developed to estimate the economic value of non-market ecosystem services, including value transfer, household production functions, hedonic analysis, travel cost and contingent valuation methodologies. A toolkit is available on the Sea Grant Social Science Website: (http://seagrant.noaa.gov/WhatWeDo/SocialScience/SocialScienceToolsandReports.aspx).
- Leveraged funds are funds above Sea Grant's appropriation and associated match. Leveraged funding comes from outside sources and can be of two types:
  1. Managed and administered by the Sea Grant program; or,

2. <u>Influenced</u> by the Sea Grant program. "Influenced" refers to funding (not administered/managed by Sea Grant) that a Sea Grant program uses to accomplish the goals and objectives of its four-year plan. This metric is not intended to include funds awarded to investigators based on past Sea Grant research.

   o Example: An extension agent who is primarily funded through Land Grant, but is also considered a Sea Grant extension agent. The funding he or she receives (provided the funding is not already included as match on your Sea Grant award) would be leveraged dollars "influenced" by Sea Grant since USDA Land Grant dollars are not managed by Sea Grant.

- A <u>job created</u> is a new position created and filled as a result of Sea Grant activities.
- A <u>job sustained</u> is an existing, filled position that is sustained as a direct result of Sea Grant activities.
- A <u>business created</u> is a new firm that was initiated as result of Sea Grant activities.
- A <u>business sustained</u> is a previously existing firm that is sustained as a direct result of Sea Grant activities.

Reporting:

- Do report: Economic impacts as dollar values. Market impacts examples include: Trade Adjustment Assistance, profits (savings or revenue generated) from technology transfer in fishing and aquaculture industries. Non-market impact examples include: flood and storm protection, provision of fresh water, tourism value of restored ecosystems. All reported jobs should have wages associated as an associated economic impact. The economic impact of jobs created/sustained (i.e., wages) is governed by reporting from the employer (if available) or estimated by median wages by sector in a given state using BLS Employment Statistics (http://www.bls.gov/oes/current/oessrcst.htm). Jobs created or sustained as a result of required training (e.g., HACCP) offered by Sea Grant should be included. However, optional professional development or educational opportunities from Sea Grant that improved applicant credentials should not be counted as jobs created/sustained. Jobs created or sustained should be expressed as "full-time equivalent" (FTE), calculated as all hours worked divided by the total hours in a full-time schedule. All businesses that are reported as created or sustained should include a report of the associated jobs created and sustained and the wages for those jobs using BLS Employment Statistics (http://www.bls.gov/oes/current/oessrcst.htm). Social benefits (e.g., statistical lives saved) should be explained in impact statements, but not quantified here.
- Don't report: This measure should not include economic impact from volunteer hours, directly-supported staff, or fellows, as those measures are collected through other performance measures/metrics. Economic impacts should not include employment or expenditures funded directly from the Sea Grant award (including match). Leveraged funds should be reported as such and not duplicated within this performance measure. An existing position that is filled with a Sea Grant-trained applicant should not be reported in this measure. A job cannot be reported as both created and sustained in the

same year. A business cannot be reported as both created and sustained in the same year. When reporting on market impacts Multipliers should not be used; this measure focuses on direct market impacts.

Cross Cutting Output Metrics

Number and origination of core funding pre-and full proposals

Explanation: Proposal metrics for the institution where the Sea Grant Director reports.

Justification: This metric is used to demonstrate the scale and diversity of Sea Grant's research enterprise as programs report the number of pre-proposals, full proposals, and funded proposals for omnibus core funding and the number of participating institutions.

Definition: The home institution is the institution to which the Sea Grant Director reports. It includes any centers or departments within that institution. When a proposal has multiple co-PIs, one individual should be considered the project leader, and the individual's institution determines where to report the proposal.

Reporting:
- Do Report: Pre-proposals submitted, full proposals submitted, and proposals funded. Report the number of proposals, the number of institutions involved, and number from home institutions.
- Don't report: NSIs in this metric.

Number of marinas certified as "Clean Marina" by the Clean Marina Program as a result of Sea Grant activities

Explanation: This metric is used to track the number of newly certified or recertified marinas by the Clean Marina Program as a result of Sea Grant activities. The Clean Marinas Program is an ongoing endeavor, by a marina industry alliance, determined to provide environmentally clean facilities and protect the states' coastal and inland waters from pollution through compliance of best management practices.

Justification: This metric tracks Sea Grant efforts to provide clean facilities to the boating community and protect waterways from pollution through Clean Marina certifications or re-certifications awarded as a result of Sea Grant activities.

Definition: Clean Marina is a voluntary compliance program that stresses environmental and managerial best management practices that exceed regulatory requirements. A facility must meet all legal regulatory requirements and a percentage of voluntary best management

practices to become a certified Clean Marina.

Examples:
- Do report: The number of newly certified or recertified Clean Marinas.

Number of individuals certified in Hazard Analysis Critical Control Point (HACCP) due to Sea Grant efforts

Explanation: Sea Grant Programs provide HACCP training (they don't issue certifications). Technically, the certificates of training completion are issued by the Association of Food and Drug Officials, not Sea Grant Programs.

Justification: This metric demonstrates Sea Grant's effort to train professionals to identify and prevent hazards   that could cause foodborne illnesses through the number of HACCP certifications awarded as a result of Sea Grant activities. Sea Grant offers required standardized training that enables people to meet the FDA training requirement in the seafood HACCP regulation. The certificates of training completion are issued by AFDO.

Definition: The number of individuals newly certified or recertified HACCP practitioners. Certifications should be reported   by the program that supports the HACCP trainer, even if the trainer travels to another state. If multiple programs supply trainers, the programs can divide the values reported, but do not double count the number of individual certified.

Reporting:
- Do report: The number of individuals who have taken HACCP trainings for programs in commercial and regulatory settings, trainings for importers, processors and distributors of fish and fishery products.
- Don't report: The number of certifications.

Number of peer-reviewed publications produced by Sea Grant

Explanation: This metrics tracks the number of publications produced by Sea Grant. The end product of scientific and engineering research is information, and Sea Grant research results are not realized until they are available to users in the marine community. To further the use and development of marine and coastal resources, NOAA encourages wide dissemination of the results of Sea Grant research and other activities. A major part of that dissemination occurs in the form of publications and other communications documents and products aimed at Sea Grant's various audiences.

Justification: This metric indicates the breadth of Sea Grant's research portfolio and comes from the National Sea Grant Library (NSGL). These refereed documents are subject to rigorous peer- review and are usually written by the investigators for use by other scientists. Their

quality is generally high and they represent an important   scholarly contribution to the wise use and development of marine resources.

Definition: Peer-reviewed publications include journal articles that have undergone a thorough peer-review process. Book chapters, proceedings papers, and periodical articles that have been peer-reviewed also fall under this category.

Reporting:
- Do report: To review the types and definitions of publications collected by the NSGL, visit: http://nsgl.gso.uri.edu/about/pdfs/pubdefinitions.pdf
- Don't report: Criteria is provided in the url above that includes items not to submit.

Number of individuals and full-time equivalents (FTEs) supported by Sea Grant

Explanation: Number of individuals and FTEs devoted to Sea Grant during the reporting period.

Justification: In order to describe and monitor the size of the Sea Grant network, this metric provides the information about personnel composition of each program.

Definition:
- Individuals supported by Sea Grant may be supported part-time/quarter-time/one-month time, etc. but are counted as one individual. The number of individuals should be a whole number. If an individual works in more than one functional area (e.g., administration and extension), please count that individual in both areas.
- To avoid any double counting when we total the individuals for all of Sea Grant, a new field for Total Individuals in all areas has been added to PIER.
- A Full Time Equivalent (FTE) is equivalent to 12 months of full time effort. One individual's time can be counted in different functional areas. For example, an individual's time (who is only part-time Sea Grant) can be counted as 0.25 administration and 0.25 extension. Another example is if you have 24 Researchers each with only 1 month time, they would add up to total of 2 FTEs.

Reporting:
- Do report: All personnel, including: PIs, graduate students, technicians, and support staff. All personnel should be counted in categories of Administration, Communications, Extension, Education, and Research.

Number of postsecondary students and degrees financially-supported by Sea Grant in higher education programs (undergraduate, graduate)

Explanation: The number of undergraduate/graduate students and degrees supported by Sea Grant through financial or other means.

Justification: To indicate Sea Grant's investment in postsecondary education, this metric tracks the number of undergraduate/graduate students and degrees financially supported by Sea Grant. This includes undergraduate/graduate students and degrees supported by Sea Grant federal, match, and leveraged funds.

Definition:
- New students: undergraduate/graduate students who have not previously been counted and are supported by Sea Grant.
- Continuing students: undergraduate/graduate students who were previously counted and are still supported by Sea Grant.
- Graduate or Professional Degrees Awarded: The number of degrees awarded to students who received full or partial support from Sea Grant at any point during the degree program.

Reporting:
- Do report: The number of postsecondary students and degrees in four categories 1) Undergraduate students and degrees, 2) M.A./M.S. students and degrees, 3) Ph.D. students and degrees, and 4) all other degree-seeking students supported by Sea Grant (such as J.D. or post-graduate students) should be counted under "Other Sea Grant supported professional degree students".

Number of P-12 students reached through Sea Grant-trained educators or directly through Sea Grant education programs

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.

Justification: This metric demonstrates the number of Preschool through 12th grade (P-12) students who have increased environmental literacy by attending a Sea Grant- sponsored event or were reached by teachers who have utilized information in the year that they receive Sea Grant training.

Definition: P-12 educators that attend Sea Grant workshops should be asked to provide the number of students that they teach to establish a multiplier for students reached. Only students reached in the report period should be counted.

Reporting:
- Do report: On the number of students who participate in a Sea Grant-sponsored workshop or training (i.e., by an educator/extension agent).

Number of P-12 educators who participated in Sea Grant education programs

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.

Justification: This metric demonstrates the number of Preschool through 12th grade (P-12) educators who have increased environmental literacy by attending a Sea Grant- sponsored event and can then enhance the environmental literacy of students for years to come.

Definition: The Sea Grant workshop educators should be asked to provide the number of P-12 educators that attend workshops or trainings. Only P-12 educators reached in the report period should be counted.

Reporting:
- Do report: On the number of educators who participate in a Sea Grant-sponsored workshop or training (i.e., by an educator/extension agent).

Number of Volunteer hours

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).

Justification: This metric shows how Sea Grant coordinates individuals who are willing to donate time without payment for their time and services in order to help a state Sea Grant program accomplish the goals of its four-year plan.

Definition: These hours include training required to become a volunteer.

Reporting:
- Do Report: On the volunteers at a beach clean-up; ecosystem restoration; citizen-science; or outreach/education that is sponsored by Sea Grant.

Number of Sea Grant-sponsored/organized events

Explanation: The number of events in which Sea Grant support was integral (e.g., planning/financial/personnel contributions).

Justification: This metric indicates the scale of Sea Grant outreach as it provides the number

of meetings, workshops, festivals, conferences, etc. in which Sea Grant played an integral role.

Definition: <u>Events</u> include organized meetings, workshops, and conferences.

Reporting:
- Do Report: On the number of events in which Sea Grant played an integral role. Some examples include: Coast Day; Community Supported Fisheries Summit; etc.

Number of attendees at Sea Grant-sponsored/organized events

Explanation: The estimated number of attendees at the events counted in the preceding metric (i.e., events in which Sea Grant support was integral via its planning/ financial/ personnel contributions).

Justification: This metric also demonstrates the scale of Sea Grant outreach as it includes the estimated number of attendees at the events counted in the preceeding metric.

Examples:
- Do Report: On the number of attendees at Sea Grant-sponsored/organized events, for example: Coast Day or a community-supported fisheries summit
- Don't Report: people engaged in Sea Grant-supported informal education programs, should be reported in that performance measure and not duplicated here.

Number of public or professional presentations

Explanation: The estimated number of presentations given by Sea Grant staff.

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.

Definition: Report the number of presentations given by Sea Grant staff or regarding Sea Grant-funded research.

Reporting:
- Do Report: Public talks given to a local volunteer/ service organizations; professional presentations to the American Society of Limnology and Oceanography

Number of attendees at public or professional presentations

Explanation: The estimated number of attendees at the presentations counted in the previous metric (i.e., a presentation given by a Sea Grant staff member).

Justification: The estimated number of attendees at the presentations given by Sea Grant staff or regarding Sea Grant-funded research indicates the size of the audience reached by the preceding metric.

Definition: Report the number of attendees at presentations given by Sea Grant staff or regarding Sea Grant-funded research.

Reporting:
- Do Report: The number of attendees at talks given to a local volunteer/service organization; or the American Society of Limnology and Oceanography

	The evolution of the National Performance Measures and Metrics Titles from the 2014-2017 Plan to the 2018-2021 Plan		
	NSGCP 2014-2017 National Performance Measure and Metrics	**NSGCP 2014-2017 National Performance Measure and Metrics Edits**	**2018-2021 National Performance Measure and Metrics**
1	Number of resource managers who use ecosystem-based approaches in the management of land, water, and living resources as a result of Sea Grant activities	Number of resource managers who use ecosystem-based approaches in the management of land, water, and living resources as a result of Sea Grant activities	Number of resource managers who use ecosystem-based approaches in the management of land, water, and living resources as a result of Sea Grant activities
2	Number of acres of coastal habitat protected, enhanced, or restored as a result of Sea Grant activities.	Number of acres of coastal habitat protected, enhanced, or restored as a result of Sea Grant activities.	Number of acres of coastal habitat protected, enhanced, or restored as a result of Sea Grant activities
3	Number of fishermen, seafood processing and aquaculture industry personnel who modify their practices using knowledge gained in fisheries sustainability and seafood safety as a result of Sea Grant activities	Number of fishermen, seafood processing and aquaculture industry personnel who modify their practices using knowledge gained in fisheries sustainability and seafood safety as a result of Sea Grant activities	Number of fishermen, seafood processing and aquaculture industry personnel who modify their practices using knowledge gained in fisheries sustainability and seafood safety as a result of Sea Grant activities
4	Number of communities that implemented sustainable economic and environmental development practices and policies as a result of Sea Grant activities.	Number of communities that adopt/implement~~ed~~ sustainable economic and environmental development practices and policies as a result of Sea Grant activities.	Number of communities that adopt/ implement sustainable economic and environmental development practices and policies as a result of Sea Grant activities
5	Number of communities that implemented hazard resiliency practices to prepare for, respond to or minimize coastal hazardous events as a result of Sea Grant activities	Number of communities that adopt/implement~~ed~~ hazard resiliency practices to prepare for~~,~~and respond to ~~or~~/minimize coastal hazardous events as a result of Sea Grant activities	Number of communities that adopt/implement hazard resiliency practices to prepare for and respond to/minimize coastal hazardous events as a result of Sea Grant activities
6	Number of Sea Grant products that are used to advance environmental literacy and workforce development	Number of Sea Grant products that are used to advance environmental literacy and workforce development	Number of Sea Grant products that are used to advance environmental literacy and workforce development
7	Number of people engaged in Sea Grant-supported informal education programs	Number of people engaged in Sea Grant-supported informal education programs	Number of people engaged in Sea Grant-supported informal education programs

8	Number of Sea Grant-supported graduates who become employed in a job related to their degree within two years of graduation.	Number of Sea Grant-supported graduates who become employed in a job related to their degree within two years of graduation.	Number of Sea Grant-supported graduates who become employed in a job related to their degree within two years of graduation.
9	Number of Sea Grant tools, technologies and information services that are used by our partners/customers to improve ecosystem-based management.	Number of Sea Grant tools, technologies and information services that are used by our partners/customers to improve ecosystem-based management	Number of Sea Grant tools, technologies and information services that are used by our partners/customers to improve ecosystem-based management.
10	Economic impacts derived from Sea Grant activities (market and non-market; jobs and businesses created or sustained) impacts derived from Sea Grant activities.	Economic and societal impacts derived from Sea Grant activities (market and non-market; jobs and businesses created or sustained) impacts derived from Sea Grant activities.	Economic and societal impacts derived from Sea Grant activities impacts derived from Sea Grant activities (market and non-market; jobs and businesses created or sustained)
11	Clean Marina certifications	Number of Marinas Certified as "Clean Marina"certifications by the Clean Marina Program as a result of Sea Grant Activities	Number of Marinas Certified as "Clean Marina" by the Clean Marina Program as a result of Sea Grant Activities
12	HACCP Certifications	Number of individuals certified or recertified in Hazard analysis critical control point (HACCP) Certifications as a result of Sea Grant activities	Number of individuals certified or recertified in Hazard analysis critical control point (HACCP) as a result of Sea Grant activities
13	Number of peer-reviewed publications produced by the Sea Grant network	Number of peer-reviewed publications produced by the Sea Grant network	Number of peer-reviewed publications produced by Sea Grant
14	Sea Grant Staffing	Number of individuals and full-time equivalents (FTEs) by Sea Grant Staffing	Number of individuals and full-time equivalents (FTEs) by Sea Grant
15	Core Funding Proposals	Number and Origination of Core Funding Pre-and Full Proposals	Number and Origination of Core Funding Pre-and Full Proposals

16	Sea Grant Financially-Supported Students, and Fellows and Degrees (Undergraduate, Graduate)	Number of Postsecondary Students ~~Sea Grant~~ Financially-Supported by Sea Grant in Higher Education Programs ~~Students, and Fellows and Degrees~~ (Undergraduate, Graduate)	Number of Postsecondary Students Financially-Supported by Sea Grant in Higher Education Programs (Undergraduate, Graduate)
17	Sea Grant Financially-Supported Students, and Fellows and Degrees (Undergraduate, Graduate)	Number of Postsecondary Degrees ~~Sea Grant~~ Financially-Supported by Sea Grant in Higher Education Programs ~~Students, and Fellows and Degrees~~ (Undergraduate, Graduate)	Number of Postsecondary Degrees Financially-Supported by Sea Grant in Higher Education Programs (Undergraduate, Graduate)
18	Number of P-12 Students Reached Through Sea Grant-Trained Educators or Directly through Sea Grant Education Programs	Number of P-12 Students Reached Through Sea Grant-Trained Educators or Directly through Sea Grant Education Programs	Number of P-12 Students Reached Through Sea Grant-Trained Educators or Directly through Sea Grant Education Programs
19	Number of P-12 Educators who participated in Sea Grant education programs	Number of P-12 Educators who participated in Sea Grant education programs	Number of P-12 Educators who participated in Sea Grant education programs
20	Volunteer Hours	Number of Volunteer Hours	Number of Volunteer Hours
21	S G-Sponsored/Organized Events	Number of Sea Grant-Sponsored/Organized Events	Number of Sea Grant-Sponsored/Organized Events
22	Attendees at Sea Grant--Sponsored /Organized Events	Number of Attendees at Sea Grant--Sponsored /Organized Events	Number of Attendees at Sea Grant-Sponsored/Organized Events
23	Public or Professional Presentations	Number of Public or Professional Presentations	Number of Public or Professional Presentations
24	Attendees at Public or Professional Presentations	Number of Attendees at Public or Professional Presentations	Number of Attendees at Public or Professional Presentations