National Performance Measure and Metric Definitions

The following questions may be helpful to consider when determining whether or not to count something towards a metric

1. ***Is this number defensible?***
2. ***Is there a clear and direct connection to Sea Grant?***

If the answer to both questions is "yes," then the particular metric should be counted.

Attribution

To report results of Program activities in performance measures and metrics, Sea Grant involvement should be one of leadership or provision of a service (planning, financial, personnel, or research accomplishments) that was necessary for the project's ultimate success.

Program Output Metrics

Leveraged Funds: 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 Institution/Program; or,
2. **Influenced** by the Sea Grant Institution/Program
   "Influenced" refers to funding (not administered/managed by Sea Grant) that a state 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.
   - 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.

Volunteer Hours: 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).

- For example, all volunteer hours from a beach clean-up that is sponsored by Sea Grant could contribute.

Peer Reviewed Reprints (from journals, books and proceedings) and Other Communications Products: Programs are expected to submit publications intended for public dissemination to the National Sea Grant Library (NSGL). Please be sure to submit materials and products for your

entire program during the annual reporting period, including those from extension agents, communicators, education specialists *and* researchers. To review the types and definitions of publications collected by the NSGL, visit:
http://nsgl.gso.uri.edu/about/pdfs/pubdefinitions.pdf

Students Supported: The number of students supported by Sea Grant through financial or other means. This includes students, interns, and fellows supported by Sea Grant federal, match, and leveraged funds.

- New students: Students who have not previously been counted and are supported by Sea Grant
- Continuing students: Students who were previously counted and are still supported by Sea Grant
- Graduate or Professional Degrees Awarded: Students who received full or partial support from Sea Grant

NOTE: The categories are broken into M.A./M.S. and Ph.D. 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".

K-12 Students Reached: The estimated number of K-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.

Curricula Developed: The number of curricula developed with Sea Grant support, assistance or influence. Curricula include formal education courses, school or university instructional materials, lesson plans, audio-visual materials, teacher guides and textbooks.

Sea Grant-Sponsored/Organized Meetings, Workshops and Conferences: The number of events in which Sea Grant support was integral (e.g., planning/financial/personnel contributions).

Attendees at Sea Grant-Sponsored/Organized Meetings, Workshops and Conferences: 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).

Public or Professional Presentations: The estimated number of presentations given by Sea Grant staff (e.g., a talk given to a local volunteer organization, a presentation to the American Society of Limnology and Oceanography, etc.).

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

Focus Area Metrics

Resource Managers who use Ecosystem-Based Approaches to Management: Number of natural resource 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. 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."

Acres of degraded ecosystems restored as a result of Sea Grant activities: The number of acres involved in successful ecosystem restoration projects. 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. Sea Grant involvement should be one of active participation, leadership, or provision of a service that was necessary for the restoration activity's ultimate success. Linear measures should be converted to acres. Indirect protection, enhancement, or restoration (e.g., through policy changes) should be highlighted in impacts or accomplishments, but not included here.

Program Management Metrics

Personnel Composition - All personnel devoted to Sea Grant should be counted, including PIs, graduate students, technicians, support staff, etc.

Number of individuals: Each person supported by Sea Grant, even if only supported part-time/quarter-time/one-month time, etc. should be counted as one individual. Only count an individual once (to avoid double counting), such that if someone is part "administration" and part-time "extension", please only count them in either extension or administration, not both. The number of individuals should be a whole number.

Full Time Effort (FTEs): One 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 .25 administration and .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.

National Performance Measures

Overall PM: Economic (market and non-market) benefits derived from Sea Grant activities.

Explanation: Society benefits from Sea Grant's assistance in developing new businesses/jobs and retaining existing businesses/jobs. This measure highlights the jobs, businesses, and dollars that communities or businesses generate or save due to Sea Grant assistance (i.e., providing information to help businesses make better decisions and avoid mistakes). 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. While the values of natural resources traded in markets, such as fish and shellfish, may be relatively easy to compute, many ecosystem services are not traded in markets and thus are more difficult to estimate. Nevertheless, these services, such as flood and storm protection, provision of fresh water, climate maintenance, waste elimination and storage provide great value to humans. 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.

Jobs: A job created is a new position created and filled or an existing position that is filled with a qualified applicant as a result of Sea Grant activities (not including positions funded by Sea Grant appropriation). A job retained is a previously existing filled position that is sustained as a direct result of Sea Grant activities (not including positions funded by Sea Grant appropriation). Jobs created or retained shall be expressed as "full-time equivalent" (FTE), calculated as all hours worked divided by the total hours in a full-time schedule. A job cannot be reported as both created and retained. *Optional professional development or educational opportunities* that improve applicant credentials should not be included, but jobs created or retained as a result of *required* training offered by Sea Grant should be included.

Businesses: A business created is a new business that exists as result of Sea Grant activities. A business retained is a previously existing business that is sustained as a direct result of Sea Grant activities. A business cannot be reported as both created and retained.

Economic Benefit: Economic benefit is the amount of money that will be saved or generated as a result of Sea Grant activities. The economic benefit of jobs created/retained is governed by what an FTE makes by sector. This can be done, but it needs to reflect the average sector-specific annualized wage/salary for the job created using input-output (I/O) analysis. This measure should not include economic benefit

from volunteer hours, directly-supported staff, or fellows. Social benefits (e.g., lives saved) should be explained in impact statements.

Examples: Aquaculture research and development leads to creation of new businesses.

HCE PM: Number of tools, technologies, and information services that are used by NOAA partners/customers to improve ecosystem-based management.

Explanation: This measure tracks success in translating research findings into tools, technologies and information services that improve the use and management of coastal, ocean, and Great Lakes ecosystems. 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. The key here is to account for tools and services utilized and applied by managers. If a publication counts towards this measure, please only count it once (no need to repeat every issue of the same publication).

Examples: Planning and mapping tools, sensors, observation tools, genetic markers, culturing systems, decision-support tools, data-sharing websites, webinars, presentations, web-based tools

HCE PM: Number of coastal communities that have restored degraded ecosystems as a result of Sea Grant activities.

Explanation: The number of coastal communities (including cities, municipalities, small towns even if unincorporated, and neighborhoods if they have a cohesive identity) that have undertaken activities for the purpose of restoring degraded ecosystems, and have succeeded in the goals of that activity. A community that undertakes a project with the goal of partial restoration of an ecosystem, and that significantly meets its goals, would count toward this PM even though the ecosystem was not completely restored. The ecosystem addressed can be of any size. Sea Grant involvement should be one of active participation, leadership, or providing a service (such as initial training) that was necessary for the restoration activity's ultimate success. This measure is reported to NOAA and the Office of Management and Budget (OMB) by county.

HRCC PM: Number of coastal communities that have adopted or implemented 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.

SSSS PM: Number of fishers who adopt and implement responsible harvesting techniques and practices.
Explanation: This measure tracks Sea Grant's success in assisting commercial, recreational, and subsistence fishery participants (individuals) to adopt new techniques, technologies and best management practices that enhance their ability to safely land a higher quality and wholesome product and work to ensure ecological sustainability and socioeconomic wellbeing. The practices may also reduce the capture of non-target species and other negative environmental impacts. Stakeholders who recognize the value of responsible use are more likely to adopt such practices. Responsible harvesting and processing techniques and practices include measures to reduce bycatch and impacts to habitats, increase seafood safety, and support higher levels of sustainability.

Examples: Hazard Analysis and Critical Control Point practicioners, fishermen that reduce bycatch mortality using circle hooks or bycatch excluder devices, or aquaculturists that take steps to minimize the spread of pathogens

SSSS PM: Number of stakeholders who modify their practices using knowledge gained in fisheries sustainability, seafood safety, and the health benefits of seafood.

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. For example, Sea Grant efforts to educate fishers on the benefits of using circle hooks as an alternative to j-hooks has decreased bycatch and increased the survival of hooked fish. Responsible harvesting and processing techniques and practices include measures to minimize bycatch and habitat destruction, ensure seafood safety, and support sustainability.

SCD PM: Number of coastal communities that have adopted or implemented sustainable (economic and environmental) development practices and policies (e.g., land-use planning, working waterfronts, energy efficiency, climate change planning, smart growth measures, green infrastructure) 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.