Guidance for Annual Reports 2007/08

Due Date: Friday, September 19, 2008

Submission: National Information Management System (NIMS) http://www.seagrant.noaa.gov/nims/NimsHome/Default2.aspx

Dates Annual Report Represents: The 2007/08 Annual Report is scheduled to cover your grant year, February 1, 2007 through the following 12 months, January 31, 2008.

Introduction

NIMS: The introduction is entered as a short narrative (10,000 character limit) in a text box in the "Program Metrics" section, under the "Management" category. We suggest filling out your Annual Report introduction when you are ready to input your Metrics information (see page 11).

I. Award Reporting

<u>Instructions:</u> Under "Manage Projects" in the left-hand navigation, select "Enter/Edit Projects." You will go to the Introduction page (see screens below). From there, there are two ways to call up projects.

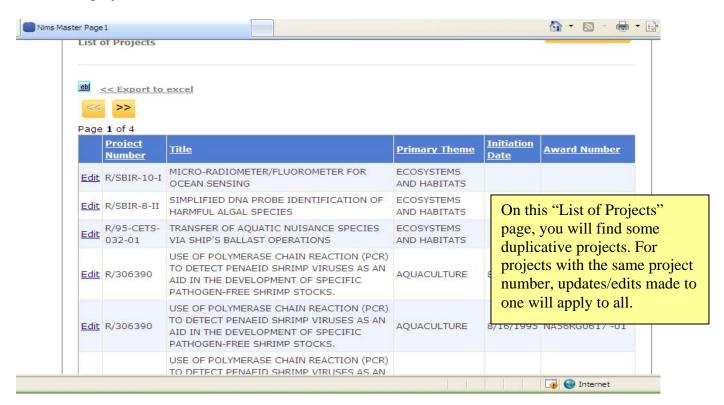
- 1. You may use the "Select a Project Folder" to open a project you have been working in. Use of this folder is optional. The Select a Project Folder" functionality is designed simply to show and provide easy access to projects that have been recently opened or edited.
- 2. To call up all projects that fall within the Annual Reporting period, simply scroll down on the page (see top of page 2) and choose the date range before hitting the "See Projects" button. (The name of your program should be selected. If not, go to "Select Program" near the bottom of the screen, choose your program name, and then hit the "See Projects" button.) You will then call up the individual projects that fall within the date range you selected (see sample "List of Projects" screen on page 2). Click on the "Edit Project" button to update information for individual NIMS projects within the selected Annual Reporting time period. (Please note that in the "List of Projects" you will find some duplicative projects. For projects with the same project number, updates/edits made to one will apply to all.)

(Program Development (PD) projects are reported under the "Program Metrics" section under the "Management" category [see page 11].)

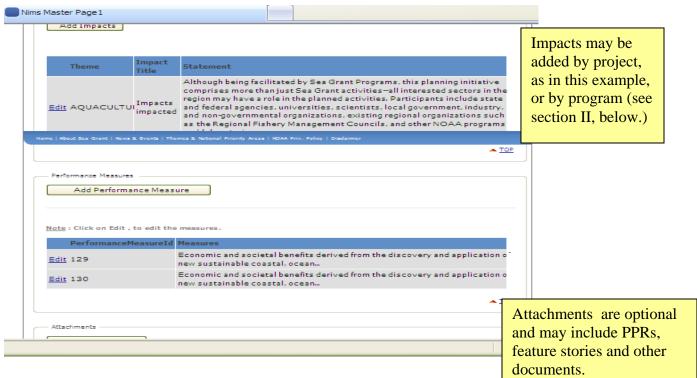


Reporting Period
<u>Instructions:</u> Select a reporting period and the program below:
Either February or March 1, 2007 (depending on your start date) through the following 12 months, either February or March 1, 2008. Then, click the "See Projects" button.
Dates from: (MM/DD/YYYY) to: (MM/DD/YYYY) 4/25/2008 Program:
Select Program
See Projects

Example: List of Projects selected by date range. Note that there are multiple pages of projects (the yellow page navigation arrows are on the "List of Projects" page above the listing of projects (see screen below). To edit an individual project, click on <u>Edit</u> (far left column, below). If you wish to export your projects into Excel, click on the button beside "Export to Excel." However, note that you cannot edit projects in Excel and move them back into NIMS.

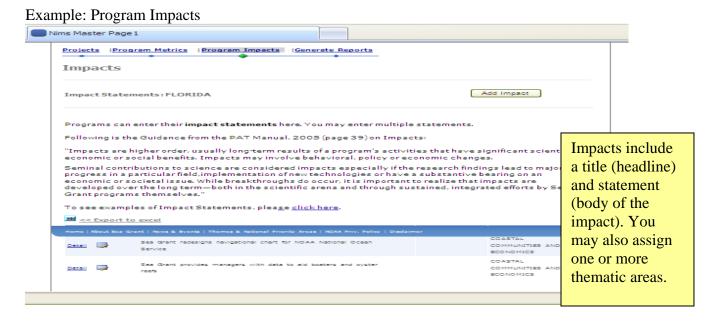


Example: Individual Project Screen. The next three sample screen shots show each category within an individual project screen. Program Nims Master Page 1 **Navigation Bar** Select Project | Projects | Program Metrics |Program Impacts View/Edit: Project Funding Attachments Impacts Performance Measures **Project Navigation** Program : INDEPENDENT/OTHER Bar (click on MBack to Project listing categories—e.g. Funding—to go to corresponding category Project Information within a project, below) ABANDONED FARMS, INC. a Grant Program: INDEPENDENT/OTHER V Award Title: TEST PROJECT - DELETE ea Grant Strategic Plan Category: $\overline{\mathbf{v}}$ COMMERCIAL BIOTECHNOLOGY ea Grant Strategic Plan Sub- ∇ 11 - MOLECULAR GENETICS Theme: INVASIVE SPECIES V Abstract: (searchable) Each Sea Grant College or Institution develops its own research education and outreach plans based on the needs of their stakeholders at the local, regional and national levels. To more effectively respond to coastal needs that span multiple States, in Objectives/Methodology/Rational 2006 Sea Grant began a regional research and information planning initiative. The coasts of the United States were divided into regions, and Sea Grant Programs in each region were awarded competitive grants to identify research and information Accomplishments and Outcomes: searchable) Nims Master Page 1 The "Project Completion Project Completion Summary Reports Summary Report" is a (searchable) (5,000 character limit) summary (rather than a full PPR), for completed projects detailing key findings. Programs may need Start Date: 4/15/2008 田田 to adjust/correct End Dates HH "Start" and "End" Not Submitted Status/Revision Notes dates. Status" and "Status/Revision Notes" are not relevant at this time. This functionality will be used later in the year, when entering 2008 projects Update Cancel Delete (please do not enter 2008 projects at this time). Guidance to follow. Funding Information Add Fund "Funding Information" allows you to click on Note: Click on the Federal Year below, to view/edit funding information. the Federal Year—e.g. Award Number Project Number 2007—to see how much TEST-DELETE R/-TESTODELETE ARMY \$0.0000 \$ the project received for that year.



II. Impacts

<u>Instructions:</u> This section should include impacts from a current or previously-funded project that may have been realized recently. In NIMS, impacts may be added by project (see screen above), if correlated to a specific project, or, by program (see screen below). Either method is fine. To add program-level impacts, go to "Manage Projects" in the left-hand navigation and select "Program Impacts."(see screen below). Many programs may choose to submit a combination of both project and program-wide impacts. (Note that when programs enter all Annual Report information and go to "Generate Reports," this report [in either PDF or Excel format], will include impacts by project and those entered by program in order to ensure that all impacts entered into NIMS will be included in your Annual Report.)



Definition

"Impacts are higher order, usually long-term results of a program's activities that have significant scientific, economic or social benefits. Impacts may involve behavioral, policy or economic changes. Seminal contributions to science are considered impacts especially if the research findings lead to major progress in a particular field, implementation of new technologies or have a substantive bearing on an economic or societal issue. While breakthroughs do occur, it is important to realize that impacts are developed over the long term—both in the scientific arena and through sustained, integrated efforts by Sea Grant programs themselves." (PAT Manual, 2005)

Guiding Principles

Impacts should:

- Be well-written and succinct brevity is key
- Highlight research, education, extension and communications projects (not just research projects)
- Capture unique or noteworthy results
- Demonstrate partnerships, when possible
- Show how products or results *are* being <u>or</u> *will* be used (often demonstrate regional or national application, or the potential for broad use)
- Quality is key (more important than the quantity of impacts)

Each impact statement entered into NIMS will include:

Theme: Aquaculture

Title: Sea Grant seeds small businesses and creates jobs

Statement: Sea Grant has contributed to the founding or operation of eight pearl farms, four demonstration and training pearl hatcheries, 15 giant clam farms (including the largest commercial giant clam aquaculture venture in the Pacific) and 20 sponge farms (Micronesia is the only area that farms sponges). Overall, the number of aquaculture enterprises in the Hawaiian Islands has reached 126 farms valued at \$25.2 million dollars, which translates into approximately 630 jobs.

Below are several additional examples of impacts for reference purposes. This list is not intended to be comprehensive since there are many types of impacts.

• Sea Grant traces organic contaminants from the White's Point Outfall Effluent Using radioisotope data Sea Grant researchers have found concentrations of DDT and PCBs in the water column off White's Point that are 100 to 1000-fold higher than the current limiting concentrations for effluents. Their methods have been adopted by the Southern California Coastal Water Research Project (SCCWRP) and the Department of Earth Sciences at USC, resulting in a total of approximately 155 person hours saved per month (equivalent of one fulltime employee).

• Sea Grant Develops Revolutionary Way to Track Illegal Shark Trade Researchers developed an inexpensive, rapid and reliable genetics test to identify shark body parts. Federal prosecutors are using this research in investigations, resulting in fines of more than \$100K. DNA markers for 18 US Atlantic shark species have been fully developed and tested for legal and illegal species.

• Sea Grant Helps Landowners Reduce Pollution and Improve Water Quality
Sea Grant extension agents are providing public education (audiovisual materials, newsletters and presentations) about the value of planting buffers—filter strips of vegetation planted along streams and ditches to receive runoff from agricultural fields in the Lake Erie watershed.

Approximately 18,000 miles of buffer strips have been installed in northern Ohio and some 1,700 acres of wetlands have been constructed.

• Sea Grant Helps Prevent Spread of Non-Native Plants and Animals Through National Campaign

In response to the U.S. Ocean Commission Report, the Great Lakes regional network, in partnership with the pet industry and the U.S. Fish and Wildlife Service, launched a major public education and outreach effort called "Habitattitude" to prevent the release of non-native plants and animals. The message: "If you have acquired an undesirable aquatic plant or fish species for your aquarium or water garden, it is important not to release these plants or animals into the environment." When aquarium hobbyists, backyard pond owners and water gardeners purchase fish or plants for their tanks or ponds, they receive the Habitattitude message at pet stores, such as Pet Smart and Petco.

III. Performance Measures

<u>Instructions:</u> Performance Measures are entered in NIMS by project (see project entry screen on the top of page 4 for the Performance Measures category). Screen shots of the individual entry screens for all three Performance Measures are displayed below. If you have a Performance Measure for your program (i.e. not correlated with an individual project), please return to the "Listing of Projects" page and enter the measure under your Management Project.

Background

All NOAA programs are required to report annually on their performance to NOAA leadership, OMB, and Congress. NOAA has established performance measures for its matrix programs, and as part of the Ecosystem Research Program (ERP), the NSGO will report on Sea Grant's contribution to the ERP performance measures. The measures have been developed in the last two years and are intended to cover all ERP programs. Three of those measures (below) are well-suited to Sea Grant and capture a great deal of what Sea Grant is about.

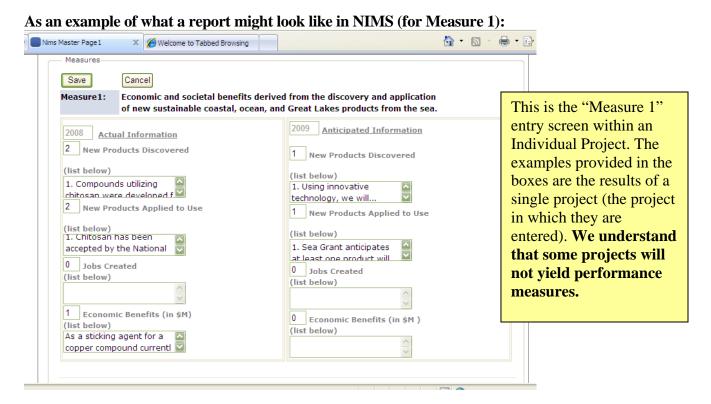
While it is not necessary nor expected that each Sea Grant program will contribute to each measure, we hope that there will be a number of substantial contributions that the Sea Grant network collectively will be able to make to each measure. Please note that you are NOT expected to fit all of your program's activities into the confines of one of these measures – there are undoubtedly areas of your program that do not fit into these measures.

The goal for reporting on the measures below is to provide a target number for each of the measures that explains the likely anticipated outcome over the next year. **In other words, report on what you estimate to be the result of efforts that are already underway or recently completed.** Do NOT provide a listing of projects that you are planning to do.

For each measure, please indicate: (1) what your actual performance was from February 1, 2007 through January 31, 2008; and, (2) your anticipated performance from February 1, 2008 through January 31, 2009.

Measure 1: Economic and societal benefits derived from the discovery and application of new sustainable coastal, ocean, and Great Lakes products from the sea.

Explanation: Society benefits from the discovery, exploration, and development of new sustainable coastal and ocean products (i.e. marine natural products, health, pharmaceuticals). As an example, Sea Grant's (and other NOAA programs') efforts to develop new drugs from marine organisms have resulted in the discovery and description of more than 1,000 compounds that may be vitally important to the health industry. This measure tracks the economic benefits generated by NOAA's investment in new products from coastal, ocean, and Great Lakes ecosystems.



We are grateful to Washington Sea Grant for providing the following measures as examples for the reporting process:

2007 Actual:

2 new products derived

- Compounds utilizing chitosan were developed for various sustainable agriculture applications, including control of potato late blight, submerged aquatic weeds and "fairy rings" on golf courses.
- Marine microbial proteasome inhibitor with potential pharmaceutical properties was biosynthesized and its gene sequenced.

2 new products applied to use

- Chitosan has been accepted by the National Organic Program as a legitimate inert ingredient and no longer requires experimental use permits; Northwest organic potato growers have begun using it commercially.
- Protease inhibitor is currently in Phase I human clinical trials for treatment of multiple myeloma and solid tumors; two provisional patent applications have been filed.

Economic benefits generated

Washington Sea Grant (WSG) researchers are currently unable to provide a precise estimate of the economic benefits derived from the application of chitosan compounds; however, as a sticking agent for a copper compound currently available to organic growers the chitosan/copper treatment has proven efficacy in controlling potato late blight. Its application requires 1/40th the amount of copper in the treatment combination, significantly reducing treatment costs and potential copper accumulations in the environment. Given the lower cost of chitosan compared to commercially available products the use of chitosan by organic potato farmers alone in Washington and Idaho could generate close to \$860,000 in savings. Widespread use by potato farmers could generate much higher economic savings, compared to those from the use of currently available commercial products. With both increasing acreage devoted to organic farming and additional grower acceptance, such savings could amount to several million dollars annually. These estimates do not take into consideration the unknown chitosan marketing costs. In addition, this research has helped provide a market for chitosan and helps sustain commercial chitosan manufacturing. The utilization of crab shell waste to produce chitosan also reduces waste and pollutants near seafood processing plants.

2008 Anticipated:

1 new product derived

 Using innovative technology, exopolymers will be extracted from sea-ice bacteria and tested for biotechnological, medical and engineering applications as enzyme stabilizers and cryoprotectants.

1 new product applied to use

• WSG anticipates at least one 2006 product will be further applied to use in 2007: there may be additional applications for chitosan compounds (e.g., control of aquatic weeds) and/or the proteasome inhibitor may complete advanced trials.

Economic benefits generated

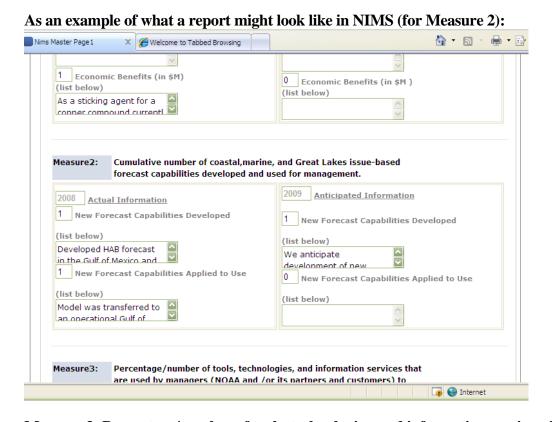
 WSG is currently unable to estimate the potential economic benefits that could be derived.

Measure 2: Cumulative number of coastal, marine, and Great Lakes issue-based forecast capabilities developed and used for management.

Explanation: NOAA develops discrete forecast models that allow resource managers to make decisions based on predicted environmental and socioeconomic impacts related to a particular issue. Managers use these issue-based forecasts to predict the impacts of a single ecosystem stressor (i.e. climate change, extreme natural events, pollution, invasive species, and land and resource use) and in order to evaluate the potential of various management options.

These forecasts are based on field and laboratory studies, existing data, and models predicting environmental conditions under different scenarios. Forecast capabilities will be specific to a geographic area; they will be counted for each ecosystem as they become operational. For example, HAB forecasts in the Gulf of Mexico and Gulf of Maine will be counted as two separate forecast capabilities. Similarly, multiple, distinct forecast capabilities could be counted within a single ecosystem (i.e. NOAA may forecast HABs, pink shrimp harvest, and hypoxia in the Gulf of Mexico).

There has been significant progress toward this goal in recent years. Numerous examples include: pink shrimp harvest and Gulf of Mexico hypoxia forecast model development (2002), transfer of an operational Eastern Gulf of Mexico harmful algal bloom alert capability to NOAA's Coastal Services Center (2004), transfer of the Great Lakes Forecasting System to NOS CO-OPS and NWS (2005), and preliminary forecasts for domoic acid in Pacific NW razor clams, coral bleaching, MSX oyster mortality, and real time jellyfish prediction in the Chesapeake Bay.



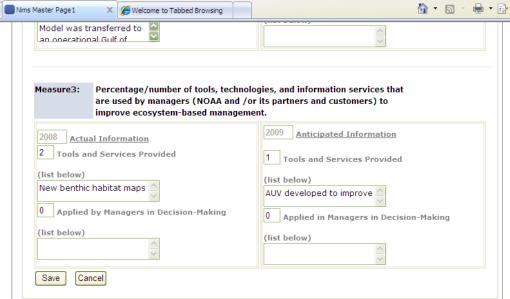
Measure 3: Percentage/number of tools, technologies, and information services that are used by managers (NOAA and/or its partners and customers) to improve ecosystem-based management.

Explanation: This measure tracks Ecosystem Research Program (ERP) 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. Tools or techniques used

for modeling or forecasting are measured elsewhere and excluded here. The KEY here is for these tools and services to be utilized and applied by managers.

Tracking the accessibility and application of information by target audiences will allow ERP to identify and expand its most effective programs and products. NOAA partners and customers include federal, state, local and tribal authorities who make decisions that affect the state of resources in the U.S. coastal zone, and other users whose actions impact the condition of coastal ecosystems (e.g., private industry, school children.)

As an example of what a report might look like in NIMS (for Measure 3):



IV. Appendices (Program Metrics)

<u>Instructions:</u> To enter Metrics information, click on "Program Metrics" under the "Manage Projects" tab on the NIMS home page in the left navigation (see screen below). Or, if you are in a project screen you can also select "Program Metrics" from the horizontal navigation.

Example: Program Metrics screen. Note that NIMS will default to your own program name.



A. Management Metrics

Please note there are seven sections (see screen below) under the Management category (these become visible when you move your cursor over "Management" in the navigation bar, see screen below). Under the Management category, you will find links to pages where you can access entry screens for the Annual Report Introduction, Staff Composition, Program Development Projects, Leveraged Funds, Partnerships, Awards and Honors, and New Businesses/Jobs/Patents/Licenses.

Example: Management Metrics drop down menu

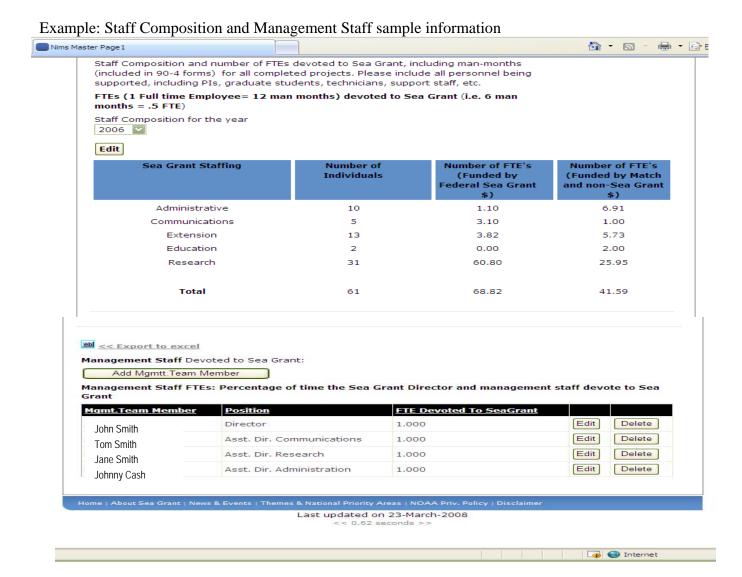


1. Management Metrics: Introduction

To add your Annual Report introduction, select the "Annual Report Introduction" link in the drop down menu under "Management." Here, you are able to paste your introduction directly into the text box provided.

2. Management Metrics: Staff Composition

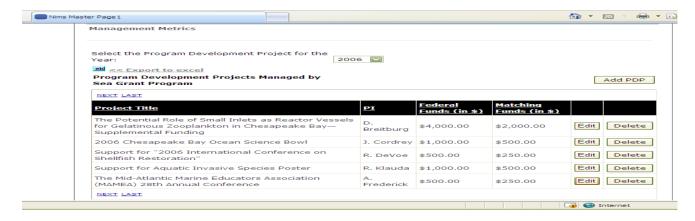
The next drop down option under the "Management" tab is "Staff Composition." Please add staff composition and number of FTEs devoted to Sea Grant, including man-months (included in 90-4 forms) for all completed projects. Please include all personnel being supported, including PIs, graduate students, technicians, support staff, etc. Note also the "Management Staff" table at the bottom of the page. The number of individuals should represent the *total* number of people involved in Sea Grant-related activities, while the number of Sea Grant-funded and non-Sea Grant-funded FTEs are based on man-months alone and do not necessarily add up to the total number of individuals listed.



3. Management Metrics: Program Development Projects

Please add Program Development Projects managed by your Sea Grant program. These should be projects that are initiated at any point during the annual reporting period, or continuing projects with funding that was not reported on during the previous annual reporting period/year.

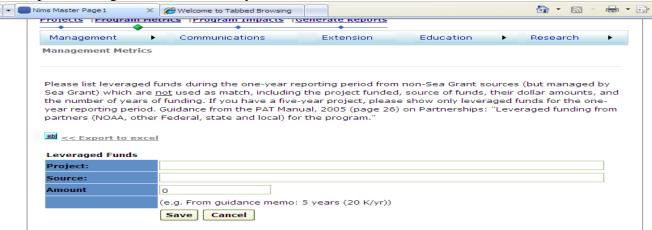
Example: Program Development Projects sample information



4. Management Metrics: Leveraged Funds (Not shown as match)

Please list funds leveraged during the one-year reporting period from non-Sea Grant sources (but managed by Sea Grant) which are <u>not</u> used as match, including the project funded, source of funds, their dollar amounts. If you have a five-year project, please show only leveraged funds for the one-year reporting period. Guidance from the PAT Manual, 2005 (page 26) on Partnerships: "Leveraged funding from partners (NOAA, other Federal, state and local) for the program."

Example: Leveraged Funds blank entry screen



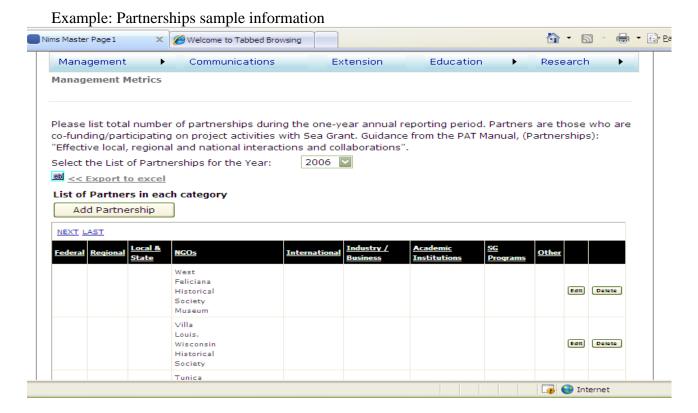
Example: Leveraged Funds sample information



5. Management Metrics: List of Partnerships

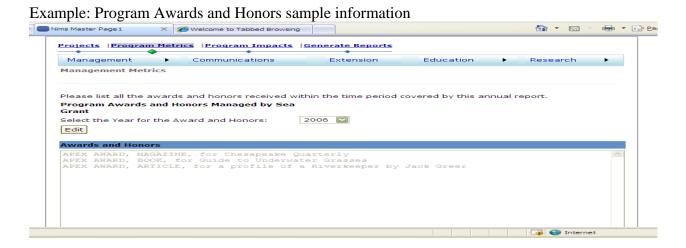
Instructions: Please hit "save" after entering each partner (i.e., save after each entry).

List the total number of partnerships within the time period covered by this annual report. When listing a federal agency or university, please include the name of the particular office and/or department (e.g. NOAA—Coastal Services Center). Partners are those who are cofunding/participating on projects or activities with Sea Grant. Guidance from the PAT Manual, 2005 (page 58) on Partnerships: "Effective local, regional and national interactions and collaborations."



6. Management Metrics: Program Awards and Honors

Please list all the awards and honors received during the annual reporting period.



7. Management Metrics: New Businesses/Jobs/Patents/Licenses

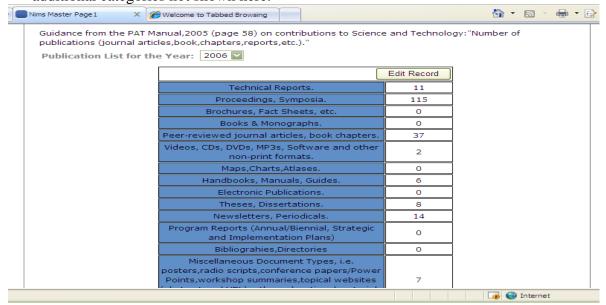
Please list any new businesses and/or jobs created, and patents and/or licenses received during these 12 months.

Example: New businesses, jobs created, patents, licenses entry screen Nims Master Page 2 × Welcome to Tabbed Browsing ♠ - ♠ - P: Projects | Program Metrics | Program Impacts | Generate Reports Management Communications Extension Education Research **Management Metrics** Please list any new businesses and/or jobs created, and patents and/or licenses received during these 12 months. Save Cancel ~

B. Communications Metrics

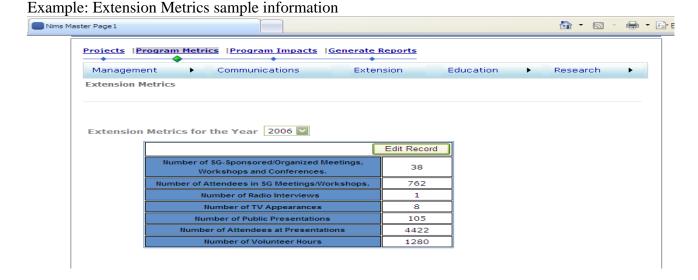
Please list all publications in the categories below. The following categories should reflect the total numbers of materials and products for your ENTIRE PROGRAM—including research, communications extension and education. For instance, please ensure that the numbers for items such as brochures, fact sheets, CDs, DVDs, and so forth, reflect the efforts of all extension, education specialists, and researchers.

Example: Communications metrics sample information. Note that this metric table includes additional categories not shown here.



C. Extension Metrics

Example: Extension Metrics (**optional** – <u>fill this metric out if you collect this information</u>). Note, however, that we collect and utilize these metrics for the NOAA Annual Operating Plan, the NOAA Office of Education, for Agency planning and budgeting activities, the Congress and other audiences.



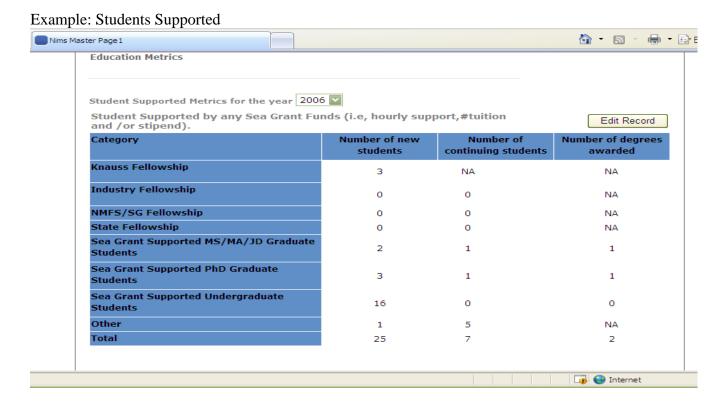
D. Education Metrics

1. K-16 (**optional** – <u>fill this metric out if you collect this information</u>). Note, however, that we collect and utilize these metrics for the NOAA Annual Operating Plan, the NOAA Office of Education, for Agency planning and budgeting activities, the Congress and other audiences.

Example: K-16 Metrics sample information. Note that this metric table includes additional categories not shown here.



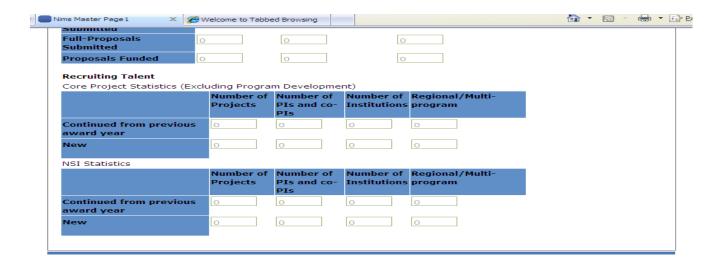
2. Students Supported. This includes students supported by any Sea Grant funds (i.e., hourly support, tuition and/or stipend).



E. Research Metrics (Core Omnibus Competition Statistics)

You may include both PIs and co-PIs for the following categories. Also, please note that when totaling numbers for institutions, schools and colleges under a single university count as one institution.





Generate Annual Report

If you wish to print your annual report (not necessary for NSGO submission), go to "Generate Reports." This will take you to a "Reports" page where you may choose "Annual Report." You will then specify either award number(s) or call up projects by date range. The system will generate a report in one of several file formats of your choosing. This functionality is nearly complete in NIMS and will be available in mid-May.

Problems, Questions, Comments?

For questions about the guidance, please contact your PO. To report a problem with NIMS please go to Help/Suggestions in the system: http://www.seagrant.noaa.gov/nims/Support/Support.aspx

Thank you and congratulations!