ECOSYSTEM OBSERVATIONS PROGRAM SUPPLEMENT
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Planning
Performance Measurement *33-102*
Program Performance Reporting 33-102-02

PROGRAM PERFORMANCE REPORTING BUSINESS RULES FOR EOP

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SUMMARY OF REVISIONS:
Procedural Directive 33-102-02 Program Performance Reporting establishes the requirement to report on and periodically update data on (among other things) PPBES Program business rules. This document 33-102-02-02 reports Program business rules for the Ecosystem Observations Program.

Signed _____/s/ John Boreman_____

John Boreman Date: October 15, 2008
Ecosystem Observations Program Manager

1. Introduction This procedural directive supplemental describes the business rules and reporting procedures for the performance measures for the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) Ecosystem Observations Program. Specifically, it establishes the procedures for the creation, review, approval, reporting, and timing of changes to performance measure *targets* and *actuals*.

2. Performance Measures Business rules and reporting procedures are detailed in section 3 of this supplemental for the following performance measures:

3.1 Percentage of living marine resources with adequate population assessments and forecasts.
3.2 Percentage of fish stocks with adequate population assessments and forecasts.
3.3 Percentage of protected species stocks with adequate population assessments and forecasts.
3.4 Number of adequate population assessments for FSSI stocks per million dollars of program expenditure.

3. Business Rules and Procedures The following procedures will be followed for each performance measure identified.

3.1 Percentage of living marine resources with adequate population assessments and forecasts

3.1.1 Definition of terms.

This measure bundles "Percentage of fish stocks with adequate population assessments and forecasts" and "Percentage of protected species stocks with adequate population assessments and forecasts." See their respective entries for more information.

3.1.2 Criteria to determine progress in meeting the performance target.

This measure bundles "Percentage of fish stocks with adequate population assessments and forecasts" and "Percentage of protected species stocks with adequate population assessments and forecasts." See their respective entries for more information.

3.1.3 Specific counting methodology, algorithm, or other formula used to generate the numbers.

The overall target or actual percentage is calculated by having the total number of target/actuals of adequately assessed FSSI stocks combined with the target/actuals for the total number of protected species stocks for which the most recent assessment is a Tier 2 or above. This is then divided by the total number FSSI stocks (230) plus the total number of protected species stocks that can be assessed (currently 237).

This measure bundles "Percentage of fish stocks with adequate population assessments and forecasts" and "Percentage of protected species stocks with adequate population assessments and forecasts." See their respective entries for more information.

3.1.4 Reporting source.

Two primary databases serve as the combined reporting source for this overall performance measure. Specifically, report functions for the "Percentage of fish stocks with adequate population assessments and forecasts" performance measures are provided by the Species Information System, a web-accessible Oracle database maintained by the NMFS Office of Science and Technology. For the "Percentage of protected species stocks with adequate population assessments and forecasts" performance measure are provided by the Office of Protected Resources' Species Status Master List database. For both metrics, the individual assessment reports that provide even more detailed documentation are available from the regional Science Centers, Fishery Management Councils, or Marine Fisheries Commissions as relevant for the particular assessment.

3.1.5 Methodology and process for setting the targets and the level of detail behind the targets.

This measure bundles "Percentage of fish stocks with adequate population assessments and forecasts" and "Percentage of protected species stocks with adequate population assessments and forecasts." See their respective entries for more information.

3.1.6 Criteria for identification of the PPAs and capabilities that support the measure.

All budget lines associated with the Ecosystem Observation Program's Capability 1 (*Fish Monitoring and Assessment*) contribute to maintaining and improving this performance measure. Additionally, all budget lines associated with the Ecosystem Observation Program's Capability 2 (*Protected Species Monitoring and Assessment*) contribute to maintaining and improving this performance measure. Contributions from other capabilities, principally the Observer Programs and the Cooperative Research Programs of EOP Capability 3, also are significant.

3.1.7 How the measure is affected by changes in funding levels and how targets corresponding to different funding scenarios are determined.

This measure bundles "Percentage of fish stocks with adequate population assessments and forecasts" and "Percentage of protected species stocks with adequate population assessments and forecasts." See their respective entries for more information.

3.1.8 Additional contingencies that could potentially impact the result in unanticipated ways

This measure bundles "Percentage of fish stocks with adequate population assessments and forecasts" and "Percentage of protected species stocks with adequate population assessments and forecasts." See their respective entries for more information.

3.1.9 Approval structure.

The Ecosystem Observation Program Capability 1 & 2 Leads submit their input for the respective performance measures "Percentage of fish stocks with adequate population assessments and forecasts" and "Percentage of protected species stocks with adequate population assessments and forecasts" to EOP staff through appropriate NMFS Line Office channels. Details on the review/clearance routing of bundled performance measures are provided in their respective entries.

3.1.10 Timing of when updates are available and the periodicity of available reporting mechanisms.

This measure bundles "Percentage of fish stocks with adequate population assessments and forecasts" and "Percentage of protected species stocks with adequate population assessments and forecasts." See their respective entries for more information.

3.2 Percentage of (FSSI) fish stocks with adequate population assessments and forecasts

3.2.1 Definitions.

Assessment: A population assessment, also commonly termed a stock assessment, is an analysis of the abundance and mortality of a living marine resource with respect to relevant management targets and limits.

Stock: A stock is the demographic unit for which the assessment is conducted. A stock is all or part of a species that is found in a defined geographic region and that is sufficiently homogeneous to support management as a unit.

FSSI Stock: Out of the 900+ stocks listed in U.S. Fishery Management Plans, 230 stocks were selected by regional fishery managers to represent the stocks that were most important to track. These stocks are used to calculate the Fish Stock Sustainability Index and are the set of stocks for which the percentage adequate assessment measure is calculated.

SAIP: The Marine Fish Stock Assessment Improvement Plan, published in 2001, described the state of stock assessment knowledge at that time and laid out a plan for improvement.

SAIP Tier: The SAIP described three tiers of improvement in the stock assessment enterprise. Tier 2 most closely matches the performance measure for adequate stock assessments. Tier 2 called for elevating all assessments to new national standards of excellence. This included upgrading assessments for core species to at least level 3 and for adequate baseline monitoring for all managed species.

SAIP level: The SAIP levels were developed to rank the level of data completeness, complexity and sophistication of stock assessments. There are 5 levels for the stock assessment model category now used to gauge adequacy of assessments.

Adequate: For the purposes of this Performance Measure, an assessment is gauged as adequate if it has a SAIP assessment level of 3 or higher and it has been done or updated within the past 5 years.
Completion – An assessment is considered to be completed when it has completed its regional technical review and has been judged to be the best available science. Extensive external peer reviews may be used for new or controversial assessments, and internal panels may serve for routine updates of previously reviewed assessments.

Update: An assessment update occurs when existing data streams are extended forward in time (e.g. another year of catch data and another year of fishery-independent survey observations) and the existing model framework is updated with this additional information in order to provide information on the current status of the stock and to extend short-term forecasts. Assessment updates do not normally have extensive reviews because they depend upon previously reviewed methods and types of data.

3.2.2 Criteria to determine progress in meeting the performance target.

Each year, approximately 50-100 FSSI stocks are assessed. The selection and scheduling of these assessments depends upon numerous regional factors including: seasonal availability of data, implementation needs of fishery management plans, preliminary information that the status of a stock may be changing, requirements for close tracking of stocks on rebuilding plans, availability of scientists to conduct assessments, availability of other scientists to conduct reviews, etc. Some regions conduct all assessments on a biennial basis to dovetail with the fishery management process. Some fishery management plans require annual updates for a few key species in order to implement updates of fishery catch quotas. Because of the complexity of diversity of these regional needs, it is only possible to forecast

the exact list of stocks to be assessed for one year.

As each stock assessment completes its technical review, the outcome of this review is communicated from the regional NMFS Science Center to the Office of Science and Technology. This communication is expected within a month of completion of the review and may be before formal publication of the assessment or action by the regional fishery management council. By early FY2007, a web-based Species Information System (SIS), maintained by the NMFS Office of Science & Technology, will be used to facilitate communication of this stock assessment outcome information.

When updates of the percentage adequate assessments are necessary, relevant information will be extracted from the SIS and used to calculate the number and percentage of adequate assessments.

3.2.3 Specific counting methodology, algorithm, or other formula used to generate the numbers.

The percentage of FSSI stocks with adequate assessments is calculated as:

number of FSSI stocks with adequate assessments
divided by
total number of FSSI stocks (which is 230)

where an adequate assessment is an assessment that currently is at SAIP level 3 or higher and has been done or updated within the past 5 years.

3.2.4 Reporting source.

The source of performance information will be the Species Information System, a web-accessible Oracle database maintained by the NMFS Office of Science and Technology. This database stores information regarding when an assessment is updated and the SAIP level of that update. The assessment reports that provide more detailed documentation are available from the regional Science Centers, Fishery Management Councils or Marine Fisheries Commissions as relevant for the particular assessment.

3.2.5 Methodology and process for setting the targets and the level of detail behind the targets.

The target for the upcoming fiscal year is calculated by taking into account the assessments that will pass beyond the 5 year window on adequacy, the list of assessments that will be updated within this year, and new assessments for stocks that previously were unassessed or inadequately assessed. This is sufficient information to calculate the expected percentage adequate at the end of the fiscal year.

Beyond the upcoming fiscal year, the exact list of stocks to be assessed is not completely determined, so an exact forecast of the percentage adequate is not feasible. However, the general capability to conduct assessments will be maintained and applied to the highest regional priorities, so level funding is expected to maintain the percentage adequate near the present level. However, there are two sources of inflationary pressure. One is inflation in salary and other operational costs (such as fuel costs for vessels). The other is escalation in the expectation for comprehensiveness of assessments and their review and documentation, thus increasing the staff time needed per assessment. Efficiencies are sought also but have not been quantified. In lieu of an exact calculation of inflation and efficiency gain, we believe that a 2% factor represents the rate at which we will lose assessment capacity at level funding. Out-year targets are based on this 2% factor.

3.2.6 Criteria for identification of the PPAs and capabilities that support the measure.

All budget lines associated with the Ecosystem Observation Program's Capability 1 (*Fish Monitoring and Assessment*) contribute to maintaining and improving this performance measure. This includes the many lines associated with Fishery Information Networks, Survey and Monitoring Projects, Fisheries Research and Management, etc. Contributions from other capabilities, principally the Observer Programs of EOP capability 3, also are significant. Beginning in 2001, increases in this capability have principally been packaged in the Expand Annual Stock Assessment – Improve Data Collection PPA. As of 2007, this line contains approximately 17% of the total funding for Capability 1.

3.2.7 How the measure is affected by changes in funding levels and how targets corresponding to different funding scenarios are determined.

The connection between funding and the updating of assessments is real, but diffuse. The data needed to conduct an assessment span several years prior to the assessment date, and the planning necessary to schedule an assessment and its review occurs before the beginning of a fiscal year. Thus, increases in funding will only rarely cause an increase in the performance measure in that year. However, significant decreases in funding could decrease the performance measure because decreases are often associated with travel restrictions and limitations on contracts, both of which would impede review and communication of assessments.

There are many factors that complicate the connection between funding and accomplishment of assessments. The largest expenditures typically are for fishery sampling programs, fishery-independent surveys, and observer programs. These are usually designed to sample an entire fishery, which harvests many stocks of fish, or a habitat area in which multiple stocks of fish reside. On the other hand, data from these broad-scale surveys and fishery sampling programs serve more needs than just fish stock assessments, so it would not be accurate to ascribe all of the costs of such programs to fish stock assessments. The linkage between funding and assessments is further complicated by the time lags; some kinds of information only become useful when they are examined as a trend extending over many (usually at least 5) years. While the costs just mentioned are largely shared across a collection of stocks within a region and it may be reasonable to calculate an average shared cost per stock within each such group, other aspects of assessment cost vary greatly between groups of species. For example, assessment of some stocks has been accomplished through statistical analysis of existing data streams of fishery logbook data, thus may have little marginal cost other than the salary of one stock assessment scientist. On the other extreme, some stocks and their fisheries do not allow such an analysis and may require observer programs for at-sea sampling of the fishery and a stock-specific fishery-independent survey (Alaska pollock). Some stocks may be assessed through moderate augmentation of existing multi-species bottom trawl surveys, others may require a multi-year program to develop and apply new sampling technologies (such as acoustic and visual sensors on autonomous underwater vehicles). The SAIP documented the number of staff associated with each generic step of the assessment process, but did not attempt to break this down by stock nor to assign costs. A comprehensive, stock-by-stock cost estimate is not available and would require a major effort to quantify the existing gap more precisely.

3.2.8 Additional contingencies that could potentially impact the result in unanticipated ways.

The primary driver for fish stock assessments is the Magnuson-Steven Fishery Conservation and Management Act (MSFCMA). Recently, this Act was reauthorized in 2006. This groundbreaking reauthorization mandated the use of annual catch limits and accountability measures to prevent overfishing, promoting limited access programs for market-based fishery management, and enhancing international cooperation. It is important to note that the establishment of Annual catch limits in all managed fisheries based on scientific assessments will have to incorporate expanded survey days-at-sea from FSVs and chartered survey vessels. Dependent on funding, this may result in an increase in the number of FSSI

stocks assessed.

3.2.9 Approval structure.

The performance measure will be reported by the Ecosystem Observation Program. Tracking of the measure will be by the Office of Science and Technology. A quarterly request will be sent from the EOP Program Manager and the Director of the OST to the Science Directors to request that any assessments completed in that quarter be updated in the Species Information System database maintained by OST. Prior to each fiscal year, a list of expected assessments will be compiled by OST from information provided by the FMCs. Some, but not all, of these assessments will be listed as AOP milestones. Those not so listed will principally be those assessments conducted by associated States, universities, or Commissions.

3.2.10 Timing of when updates are available and the periodicity of available reporting mechanisms.

There is no explicit linkage to fiscal year reporting and most assessments track the status of stocks on a calendar year basis. However, it is not possible for all assessments and their reviews to occur at the same time. Assessments and their reviews are distributed throughout the year and the seasonality varies by region and by Fishery Management Plan within region. Assessment outcomes are to be reported to the tracking database within a month of their completion, so it is realistic to update the percentage adequate on a quarterly basis. When such updates are calculated, assessments that reach their 5-year window of adequacy will not be classified as inadequate until the end of the fiscal year.

3.3 Percentage of protected species stocks with adequate population assessments and forecasts

3.3.1 Definitions.

Assessment: A population assessment, also commonly termed a stock assessment, is an analysis of the abundance and mortality of a living marine resource with respect to relevant management targets and limits.

Protected species: defined as all marine mammal stocks (except walruses, polar bears, and manatees) and those domestic non-marine mammal species listed as threatened or endangered under the Endangered Species Act that are under the jurisdiction of the National Marine Fisheries Service. Marine Mammal species can be listed as “depleted” under the Marine Mammal Protection Act.

Threatened: Defined under the ESA as "*any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range*."

Endangered: Defined under the ESA as "*any species which is in danger of extinction throughout all or a significant portion of its range*."

Stock: A stock is the demographic unit for which the assessment is conducted. A stock is all or part of a species that is found in a defined geographic region and that is sufficiently homogeneous to support management as a unit.

SAIP: “*A Requirements Plan for Improving the Understanding of the Status of U.S. Protected Marine Species*.”, published in 2004, described the state of stock assessment knowledge at that time and laid out a plan for improvement.

SAIP Tier: The SAIP described three tiers of improvement in the stock assessment enterprise. Tier 2 most closely matches the performance measure for adequate stock assessments. Tier 2 called for elevating all

assessments to new national standards of excellence. This included upgrading assessments for core species to at least level 3 and for adequate baseline monitoring for all managed species.

Adequate: For the purposes of this Performance Measure, an assessment is gauged as adequate if it has a SAIP Tier 2 or higher and it has been done or updated within time requirements of the ESA or MMPA, as appropriate.

Review: An assessment is considered to be completed when it has completed its regional technical review and has been judged to be the best available science. Extensive external peer reviews may be used for new or controversial assessments, and internal panels may serve for routine updates of previously reviewed assessments.

Update: An assessment update occurs when existing data streams are extended forward in time (e.g. another year of catch data and another year of fishery-independent survey observations) and the existing model framework is updated with this additional information in order to provide information on the current status of the stock and to extend short-term forecasts.

3.3.2 Criteria to determine progress in meeting the performance target.

Each year, up to 45 stocks or species may be assessed. The selection and scheduling of these assessments depends upon numerous regional factors including: availability of funds, availability of ship and computing resources, new listings requiring initial assessments, length of time since the last assessment. Because of the complexity of diversity of these regional needs, it is only possible to forecast the exact list of stocks to be assessed for one year. It should be noted that, for most stocks/species, assessment is a two year process, so the forecast number is the number of stocks that will be completed in a given year.

Communication on assessment status comes from the Science Center Directors to the Office of Protected Resources on an annual basis. During the completion and Science Center Review process, the assessment is reviewed to determine status against the SAIP. In addition, as outyear targets are set, declines in assessment status (adequate to inadequate) are noted, usually based on a lack of resources to schedule and perform an assessment before it expires.

3.3.3 Specific counting methodology, algorithm, or other formula used to generate the numbers.

The percentage of adequate assessments in a given year is simply the number of stocks for which the most recent assessment is a Tier 2 or above, divided by the total number of protected species that can be assessed.

3.3.4 Reporting source.

Assessments are captures in periodic stock assessment reports for each region, available on the web at http://www.nmfs.noaa.gov/pr/sars/. Data on status are also tracked in the Office of Protected Resources in the Species Status Master List database. The assessment reports that provide more detailed documentation are available from the regional Science Centers as relevant for the particular assessment.

3.3.5 Methodology and process for setting the targets and the level of detail behind the targets.

The target for the upcoming fiscal year is calculated by taking into account the assessments that will pass beyond the prescribed legal widow for review, the current list of adequate and inadequate assessments, the list of assessments that will be updated within this year, and new assessments for stocks that have been listed in the execution year. This is sufficient information to calculate the expected percentage adequate at

the end of the fiscal year. Beyond the upcoming fiscal year, the exact list of stocks to be assessed is not completely determined, so an exact forecast of the percentage adequate is not feasible. However, the general capability to conduct assessments will be maintained and applied to the highest regional priorities, so level funding is expected to maintain the percentage adequate near the present level. However, there are two sources of inflationary pressure. One is inflation in salary and other operational costs (such as fuel costs for vessels). The other is escalation in the expectation for comprehensiveness of assessments and their review and documentation, thus increasing the staff time needed per assessment. Efficiencies are sought also and the actual average inflation in assessment costs has not been attempted. In lieu of an exact calculation, we believe that a 2% factor represents the rate at which we will lose assessment capacity at level funding.

3.3.6 Criteria for identification of the PPAs and capabilities that support the measure.

All budget lines associated with the Ecosystem Observation Program's Capability 2 (*Protected Species Monitoring and Assessment*) contribute to maintaining and improving this performance measure. Contributions from other capabilities, principally the Observer Programs of EOP Capability 3, also are significant. There are presently 16 PPAs assigned to F/PR which contribute to this measure.

3.3.7 How the measure is affected by changes in funding levels and how targets corresponding to different funding scenarios are determined.

The data needed to conduct an assessment spans several years prior to the assessment date and the planning necessary to schedule an assessment and its review occurs before the beginning of a fiscal year. Thus, increases in funding will only rarely cause an increase in the performance measure in that year. However, significant decreases in funding could decrease the performance measure because decreases are often associated with travel restrictions and limitations on contracts, both of which would impede review and communication of assessments.

3.3.8 Additional contingencies that could potentially impact the result in unanticipated ways.

Both the ESA and MMPA are currently awaiting reauthorization. Changes in these laws could mandate stricter deadlines fro assessments, as well as require the inclusion or exclusion of certain items in an assessment. Court decisions regarding the adequacy of Biological Opinions issued under the PSP could also have an effect, if they require reassessments in the course of drafting a new BiOp.

3.3.9 Approval structure.

The performance measure will be reported by the Ecosystem Observation Program. Tracking of the measure will be by the Office Protected Resources. An annual request will be sent from the Office Director coupled with a similar PSP data call to the Science Directors to request that any assessments completed in that year be updated on the Species Status Master List maintained by F/PR. This joint data call occurs in November of each year, following the close of the previous Execution Fiscal year. As part of this data call, a list of expected assessments will be compiled by F/PR from information provided by the FMCs. Some, but not all, of these assessments will be listed as AOP milestones.

3.3.10 Timing of when updates are available and the periodicity of available reporting mechanisms.

There is no explicit linkage to fiscal year reporting and most assessments track the status of stocks on a calendar year basis. However, assessments and their reviews can occur throughout the year and the

seasonality varies by region. Assessment outcomes are to be reported to F/PR annually.

3.4 Number of adequate population assessments for FSSI stocks per million dollars of program expenditure

3.4.1 Definitions.

Annual Program Expenditures: These expenditures are drawn from FY06 Actuals, FY07 Enacted, and FY08 President's Budget for all budget lines associated with the EOP's Capability 1 (Fish Monitoring and Assessment). These PPAs contribute to maintaining and improving this performance measure. This includes the many lines associated with Fishery Information Networks, Survey and Monitoring Projects, Fisheries Research and Management, etc.

Assessment: A population assessment, also commonly termed a stock assessment, is an analysis of the abundance and mortality of a living marine resource with respect to relevant management targets and limits.

Stock: A stock is the demographic unit for which the assessment is conducted. A stock is all or part of a species that is found in a defined geographic region and that is sufficiently homogeneous to support management as a unit.

FSSI Stock: Out of the 530+ stocks and stock complexes now managed through U.S. Fishery Management Plans, 230 stocks were selected by regional fishery managers to represent the stocks that were most important to track. These stocks are used to calculate the Fish Stock Sustainability Index and are the set of stocks for which the percentage adequate assessment measure is calculated.

SAIP: The Marine Fish Stock Assessment Improvement Plan, published in 2001, described the state of stock assessment knowledge at that time and laid out a plan for improvement.

SAIP Tier: The SAIP described three tiers of improvement in the stock assessment enterprise. Tier 2 most closely matches the performance measure for adequate stock assessments. Tier 2 called for elevating all assessments to new national standards of excellence. This included upgrading assessments for core species to at least SAIP level 3 and for adequate baseline monitoring for all managed species.

SAIP Level: the SAIP levels were developed to rank the level of data completeness, complexity and sophistication of stock assessments. There are 5 levels for the stock assessment model category now used to gauge adequacy of assessments.

Adequate: For the purposes of this Performance Measure, an assessment is gauged as adequate if it has a SAIP assessment level of 3 or higher and it has been done or updated within the past 5 years. An adequate assessment is able to produce a time series of the estimated level of abundance and fishing mortality from which status determinations and projections of sustainable catch can be made.

Completion: An assessment is considered to be completed when it has completed its regional technical review and has been judged to be the best available science. Extensive external peer reviews may be used for new or controversial assessments, and internal panels may serve for routine updates of previously reviewed assessments.

Update: An assessment update occurs when existing data streams are extended forward in time (e.g. another year of catch data and another year of fishery-independent survey observations) and the existing model framework is updated with this additional information in order to provide information on the current status of the stock and to extend short-term forecasts. Assessment updates do not normally have extensive reviews because they depend upon previously reviewed methods and types of data.

3.4.2 Criteria to determine progress in meeting the performance target.

Each year, approximately 50-100 FSSI stocks are assessed. The selection and scheduling of these assessments depends upon numerous regional factors including: seasonal availability of data, implementation needs of fishery management plans, preliminary information that the status of a stock may be changing, requirements for close tracking of stocks on rebuilding plans, availability of scientists to conduct assessments, availability of other scientists to conduct reviews, etc. Some regions conduct all assessments on a biennial basis to dovetail with the fishery management process. Some fishery management plans require annual updates for a few key species in order to implement updates of fishery catch quotas. Because of the complexity of diversity of these regional needs, it is only possible to forecast the exact list of stocks to be assessed for one year.

As each stock assessment completes its technical review, the outcome of this review is communicated from the regional NMFS Science Center to the Office of Science and Technology. This communication is expected within a month of completion of the review and may be before formal publication of the assessment or action by the regional fishery management council. By early FY2007, a web-based Species Information System (SIS), maintained by the NMFS Office of Science & Technology, will be used to facilitate communication of this stock assessment outcome information.

When updates of the adequate assessments are necessary, relevant information will be extracted from the SIS and used to calculate the number assessments then divided by annual program expenditures provided by the NMFS budget office.

3.4.3 Specific counting methodology, algorithm, or other formula used to generate the numbers.

This is an Input Productivity class efficiency measure (i.e., ratio of an output (assessments) to an input (expenditures).

3.4.4 Reporting source.

The source of performance information will be the ExpectMore.gov website:
http://www.whitehouse.gov/omb/expectmore/index.html

Specifically, this information can be found at the following OMB site:

http://www.whitehouse.gov/omb/expectmore/detail/10000036.2007.html#performanceMeasures

The source of performance information for stock assessments will be the Species Information System, a web-accessible Oracle database maintained by the NMFS Office of Science and Technology. This database stores information regarding when an assessment is updated and the SAIP level of that update. The assessment reports that provide more detailed documentation are available from the regional Science Centers, Fishery Management Councils or Marine Fisheries Commissions as relevant for the particular assessment.

3.4.5 Methodology and process for setting the targets and the level of detail behind the targets.

This measure shows the number of FSSI stocks with adequate assessments for each million dollars of program expenditure. An adequate assessment is considered an assessment that currently is at SAIP level 3 or higher and has been done or updated within the past 5 years.

The actual cost per assessment will vary widely depending on geographic extent of the stock, the type of

technology and ships needed to do surveys, and the number of commercial and recreational fisheries needing to be monitored in order to record the level of catch. Most observation systems will collect information on several co-occurring stocks, thus effectively spreading the cost across all those stocks. Prevention of overfishing and tracking the rebuilding of overfished stocks requires periodic updates of assessments because stock abundance responds to both the effects of fishing and to unpredictable natural factors. The nominal period beyond which an assessment is considered to be no longer adequate is 5 years and some stocks require more frequent updates than this. The program is not fully internalized because factors unrelated to the efficiency of the program could have a significant negative impact on increasing the number of adequate assessments. These include: escalating expectations for the precision and comprehensiveness of assessments, non-programmatic infrastructure needs such as Fishery Survey Vessels. In particular, the reauthorized MSFCMA now requires establishment of annual catch limits for each managed fishery, thus increasing the need for more timely updates of assessments that include short-term forecasts of stock abundance and available catch.

3.4.6 Criteria for identification of the PPAs and capabilities that support the measure.

All budget lines associated with the Ecosystem Observation Program's Capability 1 (*Fish Monitoring and Assessment*) contribute to maintaining and improving this performance measure. This includes the many lines associated with Fishery Information Networks, Survey and Monitoring Projects, Fisheries Research and Management, etc. Contributions from other capabilities, principally the Observer Programs of EOP capability 3, also are significant. Beginning in 2001, increases in this capability have principally been packaged in the Expand Annual Stock Assessment – Improve Data Collection PPA. As of 2007, this line contains approximately 17% of the total funding for Capability 1.

3.4.7 How the measure is affected by changes in funding levels and how targets corresponding to different funding scenarios are determined.

It is important to note that when assessment activities with the lowest cost and the highest return are undertaken first, unit costs for increasing the number of adequate assessments may increase over time. To counterbalance this, NOAA Fisheries is continually striving to improve fisheries assessments by making them less expensive, faster, and more accurate. The Program has been actively pursuing the development of new methodologies (e.g., Toolbox of standardized assessment models[1]) and technologies (e.g., improved FSCS[2], acoustically quiet survey ships[3], AUV surveys[4], etc.) to be made available for the collection, processing, and analysis. This should reduce the cost per adequate assessment. The goal of this annual efficiency measure is to improve NOAA Fisheries' scientific advice to support fisheries management in a more cost effective manner.

3.4.8 Additional contingencies that could potentially impact the result in

[1] standardized stock assessment models facilitate a streamlined review process, thus letting one review panel cover 2-3 stocks rather than just one stock and its customized model. This expedites scientific advice to management.

[2] The deployment of the Fisheries Scientific Computing System (FSCS) on survey vessels speeds the acquisition of data from fish samples, thus allowing more samples to be taken per day and reducing the number of days necessary to complete a survey. FSCS also allows for a seamless data transfer from ship to shore operation. Data can be supplied in near-real time to the NMFS regional Science Center. This reduces data editing and integration time significantly.

[3] The use of acoustically quiet fishery survey vessels reduces fish avoidance, thus reducing the time and expense to calibrate the fish avoidance factor and reducing the total number of days necessary to conduct a survey. Further efficiency advancements from acoustically quiet vessels come from their ability to detect small concentrations of fish against the noise background created by the ship.

[4] AUVs can make survey vessels more efficient by having more instrumentation in the water on a given sea day (i.e., more area surveyed per given sea day).

unanticipated ways.

The primary driver for fish stock assessments is the Magnuson-Steven Fishery Conservation and Management Act (MSFCMA). Recently, this Act was reauthorized in 2006. This groundbreaking reauthorization mandated the use of annual catch limits and accountability measures to prevent overfishing, promoting limited access programs for market-based fishery management, and enhancing international cooperation. It is important to note that the establishment of Annual catch limits in all managed fisheries based on scientific assessments will have to incorporate expanded survey days-at-sea from FSVs and chartered survey vessels. Dependent on funding, this may result in an increase in the number of FSSI stocks assessed.

3.4.9 Approval structure.

The performance measure will be reported by the Ecosystem Observation Program. Tracking of the measure will be by the Office of Science and Technology. Following Program Assessment Rating Tool (PART) Guidance, updated information (targets and actuals) will entered into PARTWeb. PARTWeb is an interactive, web-based database designed to collect and monitor information related to Federal program evaluations conducted under the PART process.

3.4.10 Timing of when updates are available and the periodicity of available reporting mechanisms.

There is no explicit linkage to fiscal year reporting and most assessments track the status of stocks on a calendar year basis. However, it is not possible for all assessments and their reviews to occur at the same time. Assessments and their reviews are distributed throughout the year and the seasonality varies by region and by Fishery Management Plan within region. Assessment outcomes are to be reported to the tracking database within a month of their completion, so it is realistic to update the number of adequate stocks on a quarterly basis. When such updates are calculated, assessments that reach their 5-year window of adequacy will not be classified as inadequate until the end of the fiscal year. Corresponding fiscal information can be provided quarterly by the NMFS budget office.