

- PART Measure: Increased understanding of viability and factors limiting recovery.
- PART Measure: Increases in fish populations in ESA-listed Pacific Salmon ESUs.
- PART Measure: Program expenditures per percentage point of ESA-listed Pacific salmon ESUs with stable or increasing trends.

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

3.1 Number of Protected Species Designated as threatened or endangered with stable or increasing population levels.

a. *List the definitions of all terms in the measure*

1. Protected species are 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 “strategic” under the Marine Mammal Protection Act.
2. 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."
3. Endangered: Defined under the ESA as "any species which is in danger of extinction throughout all or a significant portion of its range."

b. *Insert criteria to determine progress in meeting the performance target (e.g., the criteria for identifying when an unknown stock becomes known or what criteria or level of recovery an endangered species must demonstrate to be considered stable or increasing; this should include criteria for the reverse, i.e. when a known stock becomes unknown or a stable or increasing species is no longer considered stable or increasing).* Recovery of threatened, endangered, or depleted protected species is very slow and can take decades. While it is not possible to “recover or de-list” a species in a five to ten year time frame, progress can be made to stabilize or increase the species. For some, it is trying to stop a steep decline (right whales, steller sea lions); for others it is trying to increase their numbers/abundance (ridley turtles). NOAA’s protected species management efforts are focused on halting declines and conserving species while still allowing human activities to continue. Specifically, a species is considered “Stable” if its population size shows no decrease over the period of time between assessments, and is considered “Increasing” when the population shows measurably higher numbers from assessment to assessment.

c. *Describe the specific counting methodology, algorithm, or other formula used to generate the numbers (e.g., How a restoration project counts “acres” restored. Describe how the Fish Stock Sustainability Index (FSSI) number is generated.).* For Mammal species the following two step formula is used:

- Three (or more) annual abundance estimates spaced out over a 10 year period of known, high precision (CV <= 30%),
- and

- A statistical analysis of these data (usually a regression) which indicates that there is either no trend (slope = 0) or the trend is positive (slope significantly greater than zero).

Salmon population status and trends are calculated using methods outlined in Good, T.P., R.S. Waples, and P. Adams (editors)¹. This consists of calculating recent abundance (1990-present), abundance trends, and median population growth rates. These calculations are used in a Viable Salmon Population (VSP) analysis to determine both status and risks to the population. Sea turtles may be assessed using deterministic age-based models², or other acceptable models which take into account their unique life history.³ Other fish species, invertebrates, and plants are assessed using the most recent population trend data.

d. Identify the reporting source (i.e., identification of data source and process to generate the performance data). Data are reported by the Regional Administrators. The reporting is done in response to an annual request from the PSP Program Manager. The previous year's listing of population status is supplied to the Regions to be updated based on (but not exclusively limited to) 1) completed formal stock assessments; 2) unusual mortality or disease events; 3) changes to fishing regulations resulting in changes in fisheries interactions; 4) newly completed scientific studies describing reproductive success, failure, changes in prey or foraging, or other studies documenting new information on population sustainability parameters; 5) newly completed or revised recovery plans for the species; 6) documented recovery actions that have contributed to a change in population trends (completed habitat restorations, successful reintroductions of injured animals).

e. Describe the methodology and process for setting the targets and the level of detail behind the targets (e.g. how are species selected and whether the target corresponds exactly to a specific list of species). This measure tracks progress at achieving partial recovery of endangered, threatened or depleted protected species under the jurisdiction of the National Marine Fisheries Service from a baseline of 65 protected species established as of January 1, 2004. The list was updated as of October 1, 2008 to include all species listed through FY 2007.

¹ Good, T.P., R.S. Waples, and P. Adams (editors). 2005. Updated status of federally listed ESUs of West Coast salmon and steelhead. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-66, 598 p.

² Turtle Expert Working Group. 2000. Assessment Update for the Kemp's Ridley and loggerhead Sea Turtle Populations in the Western North Atlantic. U.S. Dep. Commer. NOAA Tech. Mem. NMFS-SEFSC-444, 115 pp.

³ National Marine Fisheries Service Southeast Fisheries Science Center. 2001. Stock assessments of loggerhead and leatherback sea turtles and an assessment of the impact of the pelagic longline fishery on the loggerhead and leatherback sea turtles of the Western North Atlantic. U.S. Department of Commerce NOAA Technical Memorandum NMFSSEFSC- 455, 343 pp.

Because of the continued slow increase in listings under the ESA, PSP has determined that further, periodic updates will be warranted. These updates will be carried out at the beginning of each fiscal year for species listed during the year prior to the year just ending. Thus, on October 1, 2008, species listed through the end of FY 2007 were added; in on October 1, 2009, listings through the end of FY 2008 will be added. A similar procedure will take place on October 1 of each year. PSP believes this is the appropriate re-baselining procedure to account for the delay that can occur between listing, and completion of scientific activities adequate to inform the GPRA measure. The list of species may be found on the Internet at http://home.nmfs.noaa.gov/mb/performance_measures/Website/Data/stablebase65.htm. Species targets are selected each year from this list based on population trend data, published stock assessments and status reviews, and other data collected by regions and science centers (disease outbreaks,

f. List the criteria for identification of the PPA's and capabilities that support the measure (i.e. the rationale for deciding which PPA funding levels influence the level of performance). There are currently 20 PPAs that are directly linked to ESA work and recovery of species. These PPAs are either designated for ESA work, or for species such as Atlantic salmon, Sea turtles, and Fish/Crustaceans/Molluscs which would not be managed under the MMPA. Other PPAs exist which are tied to Marine Mammal conservation, and thus may partially contribute to listed species recovery. The decision of which PPAs may support this GPRA measure is thus a series of dichotomous questions: is this a line for Marine Mammals, or ESA? Is it a Marine Mammal line that is also designated for ESA (As is the case with right whale funding)?

g. Describe how the measure is affected by changes in funding levels and how targets corresponding to different funding scenarios are determined. Annual targets are set based on both previous fiscal year's execution and current fiscal appropriation. This can cause targets to shift downward instead of remaining steady in a declining budget scenario. Out year targets are developed based on these two criteria, as well as the length of time since a species last status review or stock assessment, the long-term population trend, and the fiscal status of the agency.

h. List additional contingencies that could potentially impact the result in unanticipated ways (e.g. changing definitions or baselines, inconclusive or rejected stock assessments, or court decisions). Contingencies affecting this measure could include: court decisions (i.e. Columbia River BiOp), stock assessments for a species more than 5 years out of date but not redone due to lack of resources, significant reauthorization of the ESA which includes new or heavily revised definitions or proscriptions for delisting,

i. Detail the approval structure (i.e., identification of those below the program manager level who will sign off on the measure's data.). The Regional Administrator approves the results for the Region prior to transmission to the Program Manager.

j. Describe the timing of when data updates are available and the periodicity of available reporting mechanisms (e.g., if data are only available upon publication of an annual report, name the report, its usual publication date, and describe why it is the only available source.) Timing of publication of such periodic reports should be

made to coincide, wherever possible, with NOAA annual performance reporting cycles (i.e. end of the quarter or fiscal year). The Data call for the measure is conducted in October of each calendar year, along with a data call for performance measure updates under the EOP measure “Percentage of Living Marine Resources with adequate population assessments and forecasts.” The data call pertains to reporting of performance for the just completed Fiscal Year. This allows Regions and Science Centers to take both the just completed fiscal year into account, with some estimation of what their Execution Year funding will be, so they can determine which species and what work products they may be able to complete for a given performance target.

3.2 Increase the percentage of ESA-listed Pacific salmon ESUs/DPSs with stable or increasing trends.

a. Definitions:

ESA-listed – Any species listed under the Endangered Species Act as threatened or endangered.

Pacific salmon – includes the following Pacific salmon species: Chinook, Coho, Chum, Sockeye, Pink, and steelhead (*O. mykiss*)

ESUs/DPSs – Any Evolutionarily Significant Unit of Pacific salmon or Distinct Population Segment of Steelhead (*O. mykiss*).

Stable or increasing – A trend in abundance (slope of a regression line) greater than or equal to zero.

b. Criteria:

Salmon population status and trends are calculated using methods outlined in Good, T.P., R.S. Waples, and P. Adams (editors)⁴. This consists of calculating recent abundance (1990-present), abundance trends, and median population growth rates. These calculations are used in a Viable Salmon Population (VSP) analysis to determine both status and risks to the population.

c. Calculation:

The total number at a stable or increasing level is divided by the total number of ESA listed salmon ESUs and multiplied by 100 to get a percent. The raw number of stable or increasing Pacific salmon ESUs is used in calculating the Protected Species GPRA performance measure of “ Number of Protected Species Designated as threatened or endangered with stable or increasing population levels”.

d. Data source:

⁴ Good, T.P., R.S. Waples, and P. Adams (editors). 2005. Updated status of federally listed ESUs of West Coast salmon and steelhead. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-66, 598 p.

The raw data for the performance calculation are compiled by NMFS' Northwest and Southwest Fisheries Science Centers. The data are compiled from a variety of sources, mainly from State Fish and Wildlife Agencies.

e. Target methodology:

Targets are set based on expected species trajectory, given biology, current species status and efforts being taken to improve species status. The targets do correspond to a specific list of species, and the targets are modified annually based on changes in any of the above factors.

f. What funding influences the measure?

This specific measure is targeted at the Pacific Coastal Salmon Recovery Fund which is PAC funding in NMFS' budget. The entire amount directed at the States of Washington, Oregon, California, and Idaho and the Columbia and Coastal tribes is evaluated for its ability to influence the measure. This is an overall outcome measure and is impacted to a large extent by factors outside of PCSRF control. Extensive Federal, State and Tribal and local efforts are being taken to recover Pacific salmon. These other efforts, combined with PCSRF effort and species biology are taken into account when determining realistic performance targets.

g. Influence of funding on performance:

This measure has historically been minimally affected by changes in PCSRF funding levels due to the limited funding of the program and time lag for species response to recovery actions. However, over the long-term, the significant investments through PCSRF focused on recovery actions will improve the status of salmon ESUs and lead to improved performance. The long term targets are adjusted based on expected funding levels and expected species response to funded projects, combined with the effects of other positive and negative actions on the species.

h. Contingencies:

The largest unknown is whether or not investments in recovery actions are large enough to counteract the amount of negative actions that are being taken across the landscape. Setting of performance targets assumes that all other actions and funding is enough to counteract the negative actions and therefore PCSRF is leading to improved species status over the baseline. It is possible that PCSRF investments may only allow the program to maintain the status quo species status as development and negative actions continue to expand.

i. Approval structure:

This is a PCSRF performance measure and all information reported in the annual reports to Congress is approved by the Deputy Regional Administrator of the NMFS Northwest Region.

j. Reporting requirements:

Information is compiled annually for the PCSRF Report to Congress and GPRA performance reporting and is compiled in the 1st quarter of the fiscal year for the previous fiscal years reporting. See measure 3.1 above.

3.3 Number of additional stream miles of accessible habitat.

a. Definitions:

Accessible – Stream habitat that is accessible for juvenile and adult anadromous salmon and steelhead.

b. Criteria:

Each PCSRF project participant reports the number of stream miles made accessible for each in-stream passage habitat project that is conducted.

c. Calculation:

The measure is a summation of all stream miles reported as being made accessible in a given year regardless of the year the project was funded or the fiscal year of appropriation.

d. Data source:

The raw data for the performance calculation is reported to NMFS by project participants through the PCSRF data system.

e. Target methodology:

Targets are set based on historic performance and expected funding levels.

f. What funding influences the measure?

This specific measure is targeted at the Pacific Coastal Salmon Recovery Fund which is PAC funding in NMFS' budget.

g. Influence of funding on performance:

Targets are directly related to PCSRF funding levels. Targets are set based on the amount of resources directed at in-stream passage, the average cost of a passage project and the expected PCSRF funding levels.

h. Contingencies:

The largest unknown is the proportion of projects that will be directed at in-stream passage projects. This proportion may change over time as other high priority limiting factors are identified and addressed by program participants.

i. Approval structure:

This is a PCSRF performance measure and all information reported in the annual reports to Congress is approved by the Deputy Regional Administrator of the NMFS Northwest Region.

j. Reporting requirements:

Information is compiled annually for the PCSRF Report to Congress and the data system is locked at the end of every calendar year. The PCSRF Report is completed in March of the subsequent year.

3.4 Number of additional acres of spawning and rearing habitat (includes adjacent upland, wetland, estuarine, riparian, and instream habitat).

a. Definitions:

Spawning and rearing habitat – Includes all habitat protection and restoration actions that are conducted in support of Pacific salmon recovery

b. Criteria:

Each PCSRF project participant reports the number of acres of habitat for each project that protects, restores or creates habitat.

c. Calculation:

The measure is a summation of all acres reported for each project type in a given year regardless of the year the project was funded or the fiscal year of appropriation.

d. Data source:

The raw data for the performance calculation is reported to NMFS by project participants through the PCSRF data system.

e. Target methodology:

Targets are set based on historic performance and expected funding levels.

f. What funding influences the measure?

This specific measure is targeted at the Pacific Coastal Salmon Recovery Fund which is PAC funding in NMFS' budget.

g. Influence of funding on performance:

Targets are directly related to PCSRF funding levels. Targets are set based on the amount of resources directed at habitat protection, restoration, or creation, the average cost of a project and the expected PCSRF funding levels.

h. Contingencies:

The largest unknown is the proportion of projects that will be directed at habitat protection, restoration, or creation projects. This proportion may change over time as other high priority limiting factors are identified and addressed by program participants.

i. Approval structure:

This is a PCSRF performance measure and all information reported in the annual reports to Congress is approved by the Deputy Regional Administrator of the NMFS Northwest Region.

j. Reporting requirements:

Information is compiled annually for the PCSRF Report to Congress and the data system is locked at the end of every calendar year. The PCSRF Report is completed in March of the subsequent year.

3.5 Increase the number of stream miles monitored.

a. Definitions:

Stream Miles Monitored – Includes all miles of stream where validation, effectiveness, or status and trend monitoring is being conducted for habitat or fish populations.

b. Criteria:

Each PCSRF project participant reports the number of stream miles monitored.

c. Calculation:

The measure is a cumulative measure of all miles monitored on an annual basis.

d. Data source:

The raw data for the performance calculation is reported to NMFS by project participants through the PCSRF data system.

e. Target methodology:

Targets are set based on historic performance and expected funding levels.

f. What funding influences the measure?

This specific measure is targeted at the Pacific Coastal Salmon Recovery Fund which is PAC funding in NMFS' budget.

g. Influence of funding on performance:

Targets are directly related to PCSRF funding levels. Targets are set based on the

amount of resources directed at monitoring, the average cost of a project and the expected PCSRF funding levels.

h. Contingencies:

The largest unknown is the proportion of projects that will be directed at monitoring. This proportion may change over time as high priority limiting factors are identified and addressed by program participants.

i. Approval structure:

This is a PCSRF performance measure and all information reported in the annual reports to Congress is approved by the Deputy Regional Administrator of the NMFS Northwest Region.

j. Reporting requirements:

Information is compiled annually for the PCSRF Report to Congress and the data system is locked at the end of every calendar year. The PCSRF Report is completed in March of the subsequent year.

3.6 Number of additional watershed assessments that address viability and factors limiting recovery.

a. Definitions:

watershed assessments – Any assessment used to identify watershed condition and factors that limit salmon recovery

b. Criteria:

Each PCSRF project participant reports the number of assessments completed that address viability or factors limiting recovery.

c. Calculation:

The measure is a count of the number of assessments completed annually regardless of the fiscal year the project was funded.

d. Data source:

The raw data for the performance calculation is reported to NMFS by project participants through the PCSRF data system.

e. Target methodology:

Targets are set based on historic performance, expected funding levels, and future need for assessments.

f. What funding influences the measure?

This specific measure is targeted at the Pacific Coastal Salmon Recovery Fund which

is PAC funding in NMFS' budget.

g. Influence of funding on performance:

Targets are directly related to PCSRF funding levels. Targets are set based on the amount of resources directed at watershed planning and assessments, the average cost of a project and the expected PCSRF funding levels.

h. Contingencies:

The largest unknown is the proportion of projects that will be directed at watershed assessments. This proportion will change over time as assessments are completed and resources are shifted to addressing high priority limiting factors as identified in the plans.

i. Approval structure:

This is a PCSRF performance measure and all information reported in the annual reports to Congress is approved by the Deputy Regional Administrator of the NMFS Northwest Region.

j. Reporting requirements:

Information is compiled annually for the PCSRF Report to Congress and the data system is locked at the end of every calendar year. The PCSRF Report is completed in March of the subsequent year.

3.7 . Percent of program resource directed at projects which address limiting factors for Pacific salmon.

a. Definitions:

Resource – PCSRF funding

Limiting factors – One of the ESA limiting factors identified by PCSRF and contained in the PCSRF performance framework, or project completed in support of addressing limiting factors (planning, monitoring, technical assistance).

Pacific salmon - includes the following Pacific salmon species: Chinook, Coho, Chum, Sockeye, Pink, and steelhead (*O. mykiss*)

b. Criteria:

Each PCSRF project is categorized as addressing a limiting factor or not. This measure compares the dollar amount of these projects in relation to total PCSRF investment.

c. Calculation:

The measure is the sum of the funding of all habitat projects that address a limiting factor plus the sum of all planning, monitoring, and outreach projects divided by the

total PCSRF investment.

d. Data source:

The raw data for the performance calculation is reported to NMFS by project participants through the PCSRF data system.

e. Target methodology:

Targets are set based on historic performance and expected funding levels. The program has targeted an increase in performance through directing of increased resources towards limiting factors.

f. What funding influences the measure?

This specific measure is targeted at the Pacific Coastal Salmon Recovery Fund which is PAC funding in NMFS' budget.

g. Influence of funding on performance:

Targets are directly related to PCSRF funding levels. Targets are set based on the amount of resources directed at addressing limiting factors, and the amount of funding that may be directed to other project areas.

h. Contingencies:

The largest unknown is the proportion of projects that will be directed at limiting factors. This proportion will change over time as resources are shifted to addressing high priority limiting factors.

i. Approval structure:

This is a PCSRF performance measure and all information reported in the annual reports to Congress is approved by the Deputy Regional Administrator of the NMFS Northwest Region.

j. Reporting requirements:

Information is compiled annually for the PCSRF Report to Congress and the data system is locked at the end of every calendar year. The PCSRF Report is completed in March of the subsequent year.