

The Delta Stewardship Council



Report to the Delta Independent Science Board:

Process for Refinement and Update of Delta Plan Performance Measures

January 6th, 2016

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Attachment 1 –Performance Measures Public Survey (template)

Purpose

The Delta Stewardship Council is undertaking a long-term project to refine and update existing Delta Plan performance measures. The project status was presented to the Delta Independent Science Board (DISB) on December 10, 2015. In that meeting, Council staff requested DISB's feedback on the scientific approach to the project, and more specifically the process being applied for refining existing output/outcome (not 'administrative' type) performance measures. The DISB agreed to accept this charge and, in support of its review, requested a document describing the process being used to assess, refine and develop these performance measures. This report has been developed for that purpose.

Background

Delta Reform Act/Delta Plan

The Delta Reform Act of 2009 requires the Delta Plan to include performance measures that enable the Delta Stewardship Council (Council) to track progress in meeting Council objectives. These performance measures are to include quantitative or other "measureable assessments of the status and trends" of the health of the Delta, as well as the reliability of the state's water supply exported from the Sacramento and San Joaquin river watersheds (Water Code sections 85211 and 85308). Specifically these sections state:

85211 – The Delta Plan shall include performance measurements that will enable the council to track progress in meeting the objectives of the Delta Plan. The performance measurements shall include, but need not be limited to, quantitative or otherwise measurable assessments of the status and trends in all of the following:

(a) The health of the Delta's estuary and wetland ecosystem for supporting viable populations of aquatic and terrestrial species, habitats, and processes, including viable populations of Delta fisheries and other aquatic organisms.

(b) The reliability of California water supply imported from the Sacramento River or the San Joaquin River watershed.

85308 - The Delta Plan shall meet all of the following requirements:

(a) Be based on the best available scientific information and the independent science advice provided by the Delta Independent Science Board.

(b) Include quantified or otherwise measurable targets associated with achieving the objectives of the Delta Plan.

(c) Where appropriate, utilize monitoring, data collection, and analysis of actions sufficient to determine progress toward meeting the quantified targets.

(d) Describe the methods by which the council shall measure progress toward achieving the coequal goals.

(e) Where appropriate, recommend integration of scientific and monitoring results into ongoing Delta water management.

(f) Include a science-based, transparent, and formal adaptive management strategy for ongoing ecosystem restoration and water management decisions.

In compliance with the Act, the Council's Delta Plan includes a suite of performance measures (160 total) organized by Delta Plan goal and strategy. The Delta Plan (2013) defines performance measures in three types: Administrative performance measures (118) are used to track various actions recommended by the Delta Plan. Output performance measures (21) are used to track results of administrative actions. Finally, outcome measures (21) are included for tracking the impacts of those actions.

Performance measures are critical to implementing the Delta Plan because they allow the Council to track how well the goals of and strategies in the Plan are being achieved and how conditions in the Delta are changing through implementation of the regulatory policies and recommendations within the Plan. Performance measures allow us to detect changes due to successful implementation of policies and recommendations, but also identify those policies or recommendations that require attention or revisions to be more effective and timely.

Performance Measures Defined

To better facilitate the discussion of the staff's recommended refinements to the Delta Plan's performance measures, it is important to understand what is meant by a "performance measure" and the metrics that define a good measure. The Delta Plan defines a "performance measure" as;

A quantitative or qualitative tool to assess progress toward an outcome or goal. The Delta Plan must include performance measurements that will enable the Delta Stewardship Council to track progress in meeting the objectives of the Plan. Performance measures must include, but need not be limited to, quantitative or otherwise measureable assessments of the status and trends in all of the following:

- (1) The health of the Delta estuary and wetland ecosystem for supporting viable populations of aquatic and terrestrial species, habitats, and processes, including viable populations of Delta fisheries and other aquatic organisms.
- (2) The reliability of California water supply imported from the Sacramento River or the San Joaquin River watershed. (Delta Plan p. 314)

Inherent in performance measurement is of course *measuring*, and this is done quantitatively over time by use of a 'metric' (or multiple metrics). A metric defines the unit of measure and other characteristics for tracking those units over time and ensuring progress in implementing the Delta Plan's goals and strategies. An example of a metric would be the number of acres of restoration projects constructed by habitat type. This metric would be tracked quantitatively, as a **trend**, over time. The metric is also used to define a historical **baseline**, or the reference point for comparison looking back. An example would be the number of acres of restored habitat by type in May 2013 when the Delta Plan was adopted and comparing this number to current acres of restored habitat. Finally, the metric is used in setting a future **target**, for comparison looking forward to the desired future state. An example would be restoration of 8,000 acres of tidal wetland and 17,000 to 20,000 acres of floodplain habitat. Targets can also be represented as trends (upward or down) and may not have a specific numerical value.

This use of metrics in comparing trends against baseline and targets reveals progress or lack of progress, and is critical to the implementation of a performance measure. Developing metrics is dependent, in part, on available data and information, current policy decisions or regulatory requirements, and desirable or known outcomes. These are a few of many metadata elements necessary for finalizing a measure for reporting. Qualitative attributes are also important for communicating ‘what it all means’ in clear terms (e.g., What does the hard data appear to tell us about the system? Is the Delta Plan working?).

In tailoring the Specification Sheet (and project approach overall) for the Council’s project, it was essential that staff take into consideration the uniqueness of the Delta Plan. The Plan’s content is not only comprehensive but includes a suite of performance measures that cuts across a set of very complex topic areas. This level of complexity required the development of a customized framework that would best address the refining of the Plan’s unique suite of performance measures. With this said, the team did take into consideration various other published endeavors involving similar performance/indicators planning, development and reporting methods, and combined it with an approach that would work best for the Delta Plan effort. A few of these are listed in the Process Overview section below and referenced elsewhere in this report.

Refinement of Performance Measures: Benefits and Challenges

The Council recognized that the Delta Plan performance measures, as presented in the Delta Plan approved in May of 2013, would require further assessment and improvement in preparation for their use in tracking Delta Plan progress. For this reason, the Council in December 2013 embarked on a project to fully assess, document and, where needed, refine the measures listed in the Plan. Fully reporting (implementation) of these measures imparts many potential benefits and challenges, including:

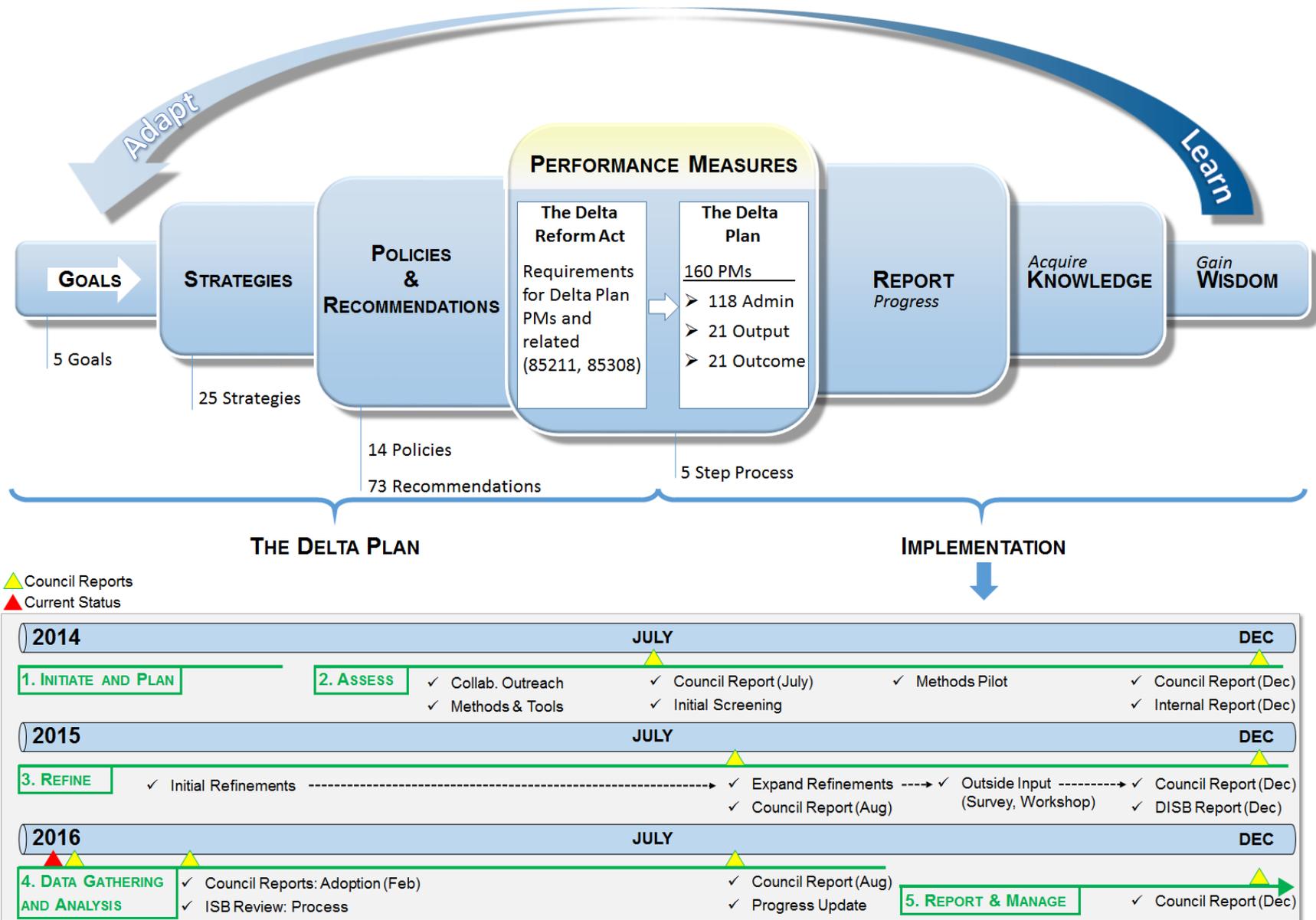
- Benefits to obtain:
 - ✓ Ability to track Delta Plan progress, in both quantitative and qualitative terms, while also supporting government transparency.
 - ✓ Ability to integrate and collaborate among various related efforts and partner organizations ~ further demonstrating the value of all agencies involved in the Delta.
 - ✓ Building a performance-focused organization.
- Challenges to anticipate/mitigate:
 - ✓ Data access and sharing.
 - ✓ Consistency among varied approaches and messages.
 - ✓ ‘Buy in’ resistance among other agencies or stakeholders should be expected. Inter-agency collaboration is key. However, this requires first building a shared understanding among partner agencies of how Delta Plan performance measures are to be used and implementation roles and responsibilities.

Process Overview

This section of the report introduces the overarching framework tailored for this project and the supporting processes for implementing Delta Plan performance measures. Each step in the process is then described in the sections which follow.

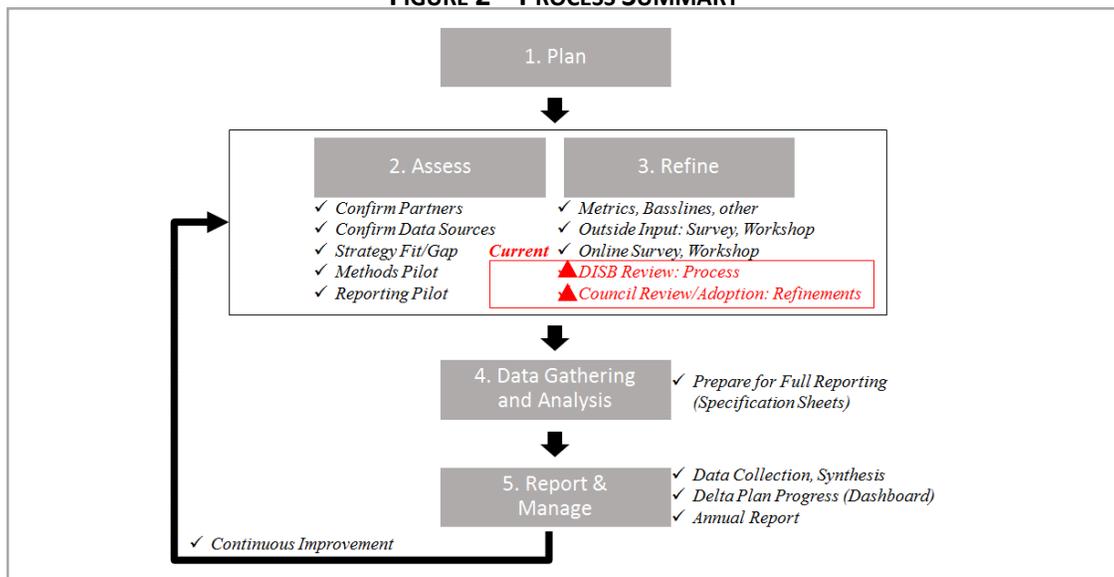
- **Research** – Project leadership holds many years of experience in performance management including seven years directly involved in the Bay-Delta system starting with the CALFED Bay-Delta program. This direct experience was applied in tailoring the approach to the current effort. In addition, the team researched other similar performance management efforts to further refine the process based on successes elsewhere. A few examples of outside efforts reviewed include the following (See the ‘References’ section for more information and internet links):
 - ✓ **CA Water Sustainability Indicators Framework (2014)**: This formed the basis for the framework tailored for the Council’s project (see Figure 1).
 - ✓ **Framework for Integrating and Communicating Watershed Health Indicators for the San Francisco Estuary (2011)**: Including screening criteria and candidate measures (indicators).
 - ✓ **South Florida, Kissimmee River Restoration Studies (2005)**: Including an approach to establishing a baseline.
 - ✓ **California Sierra Nevada Conservancy, Indicators/Performance Measures Governance and Implementation Plan (2009)**: including specification sheets/criteria and overall approach to measures/indicators development and ongoing management.
- **Figure 1: Performance Management Framework** – The framework illustrates how performance measures will be used in a continuous cycle of data collection, synthesis and decision support/learning. Performance measures must be allowed to adapt as the understanding of the system and/or condition changes over time. The need to adapt is especially critical in the current era of severe drought, climate change and other recent significant changes in hydrological conditions and water policy. These major developments since the Delta Plan’s implementation have implications to statewide water supply reliability, the health of the Delta environment, and to Delta Plan implementation and performance management.
- **Figure 2: Performance Measures Refinement Process** – The figure also lists the key process steps for implementing the measures. The process is summarized in Figure 2 and described more fully in the sections which follow. It is important to note that these steps have been tailored specifically for Delta Plan performance measures that have already been published (2013 Delta Plan). The process is geared toward more fully specifying existing measures, and, where needed, refining or adding new measures.
 - ✓ **Step 1 – Initiate and Plan**: Formal startup materials were developed including project charter, work plan, schedule, and resource/communication plan. Kickoff meetings were held with Council planning staff, subject matter experts and the executive steering committee made-up of Council executive managers from various programs including the Delta Science Program.

Figure 1: Delta Plan Performance Management Framework and Implementation Process



- ✓ **Step 2 – Assess:** Methods for assessing existing performance measures were developed and confirmed. Performance measures underwent initial criteria-based screening to identify initial refinement opportunities. Management and Council reports provided useful feedback based on a select subset of ‘pilot’ measures.
- ✓ **Step 3 – Refine:** Refinements were then expanded to all output/outcome performance measures, focusing on metrics, baseline/reference conditions and source data. Activities included:
 - Formal outreach utilizing online surveys and a public workshop.
 - The DISB has been requested to review the development and refinement process (documented herein).
 - The Council has been requested to review and provide comment on the list of recommended refinements. The public was also invited to comment on the recommended refinements for individual output and outcome performance measures. The comments received by the DISB in Step 3 regarding process will be addressed during this period.
 - **Pending as of the date of this report, the Council will also be requested to provide approval to proceed with Step 4.**
- ✓ **Step 4 – Data Gathering and Analysis:** Upon Council approval of the new and refined performance measures, staff will begin data gathering and analysis efforts to populate the new and refined performance measures. As shown in Figure 1, this is an extensive effort expected to span five or six months in 2016.
- ✓ **Step 5 – Report and Manage:** The full suite of performance measures will be then publicly reported to track Delta Plan progress. This will comprise quantitative tracking over time and qualitative messaging (Is the plan working?). Measures will be embedded into annual reporting and other Council processes. The measures themselves will be continually re-evaluated against the screening criteria to confirm utility for progress tracking and identify opportunities for improvement.

FIGURE 2 – PROCESS SUMMARY



Step 1: Initiate and Plan

Industry standard project management methods are applied throughout the project, starting with the critical startup and planning work upfront (Project Management Institute, 2013). Accomplishments include documenting and obtaining approval of the following:

- Comprehensive Project Management Plan – This includes a project Charter document, Statement of Work, critical path timeline, and communications plan.
- Guiding Framework – This is based on review of other similar efforts (see ‘References’), combined with the team’s direct professional experience. The framework is portrayed in Figure 1.
- Document Library – The team consolidated Delta Plan documentation and applicable related documents and research.
- Glossary of Terms – The team worked with the Delta Science Program in documenting performance measurement and related terminology.
- Initial Screening Criteria – Based on the team’s direct experience and research of similar efforts, screening criteria were tailored to the unique needs of this project. These are outlined below in Figure 3. Criteria are used for selecting performance measures and helping to identify refinement recommendations.
- Management Interviews – focused primarily on internal management personnel, but also included interviews with select outside stakeholders.

**FIGURE 3 – PERFORMANCE MEASURES SCREENING CRITERIA,
TAILORED FOR DELTA PLAN PERFORMANCE MEASURES**

➤ **Core Screening Criteria:**

- Metric/expectation
- Baseline, Reference condition
- Target
- Conceptual Relevance
- Transferability
- Spatial scale
- Temporal scale
- Assumptions/model
- Process (collect/synthesize/report)
- Staff notes

➤ **Decision Support Criteria:**

- Informs management actions
- Interpretation/Understandability
- Tells a story (qualitative)
- Scalability (aggregate/disaggregate)
- Responsive/sensitive to stressors
- Best Available Science ~ relevant to conditions

➤ **Data Criteria:**

- Format, frequency, ownership
- Quality-assured, availability, traceability
- Comparability
- Documented uncertainty
- ‘Cost’ to collect/synthesize

Step 2: Assess

The initial assessment step is tailored to accomplish several key objectives: to confirm methods through an initial proof-of-concept pilot analysis; to confirm collaboration partners, as the data owned by those partners is key to the success of performance reporting; and to perform an initial screening of performance measures to help identify major areas of focus.

2.1 Confirm Collaboration Partners/Data Sources

A guiding principle to the project was to leverage to the fullest extent possible, the data managed/owned by other organizations/partner agencies. The scope of the Delta Plan and its performance measures is extensive and so is the variety of data types needed in tracking metrics over time. Many partner agencies already collect, synthesize and ‘report’ on data elements related to Delta Plan policy goals. It was therefore vital to the team that an early step in the project must be to map out the types of data likely to be required in Delta Plan performance tracking and then to confirm the departments/programs responsible for that data. This involved the following:

- **Outreach Meetings** – The project team conducted numerous conference calls and meetings with specific partner agencies and programs. Figure 4 provides a representative example of the wide array of efforts involved in Delta issues and data collection. Each of these programs were considered as potential data sources and possible opportunities for collaborative/interagency progress reporting.
- **Full Data Specification** – The Specification Sheet includes fields for fully documenting data needs for the performance measure. This includes documenting ‘what’ data is needed, ‘who’ owns it, ‘format’, ‘frequency’, and related issues.
- **Data Synthesis Staff Procedures** – The procedural steps required by staff for collecting and synthesizing source data is defined. This includes identifying the role of outside agencies who house/own the source data.

FIGURE 4 – DELTA INTERAGENCY COLLABORATIVE EFFORTS RESEARCHED
(representative sample)

➤ **Collaborative Working Groups:**

- CA Water Quality Monitoring Council (CWQMC)
- CA Estuary Monitoring Workgroup (CEMW)
- CA Wetlands Monitoring Workgroup (CWMW)
- Data Management Group
- Healthy Streams Partnership
- San Francisco Estuary Partnership (SFEP)

➤ **Planning and Data Resources:**

- CA EcoRestore
- CA WaterFix
- Water management plans (urban, agricultural)
- State of the Estuary Report (SotER)
- Bay Delta Water Quality Control Plan
- Delta Plan
- CA EcoAtlas
- Delta Landscapes Project
- Sac.-SJ Delta Historical Ecological Study
- CA Wetlands Portal (Wetland Tracker)
- Delta Regional Monitoring Program (Delta RMP)
- Delta Economic Sustainability Plan
- Comprehensive Conservation Mgt. Plan (CCMP)

➤ **Other Multi-Agency Plans and Programs:**

- Fish Restoration Program Agreement (FRPA)
- Ecosystem Restoration Program (ERP)
- Central Valley Flood Protection Plan (CVFPP)
- Delta Land Use and Resource Management Plan
- CVRWQCB Water Quality Control Plan
- Delta Science Plan
- Interagency Ecological Program (IEP)
- Environmental Monitoring Program (EMP)
- Delta Vision

2.2 Perform Initial Strategy Fit/Gap Screening

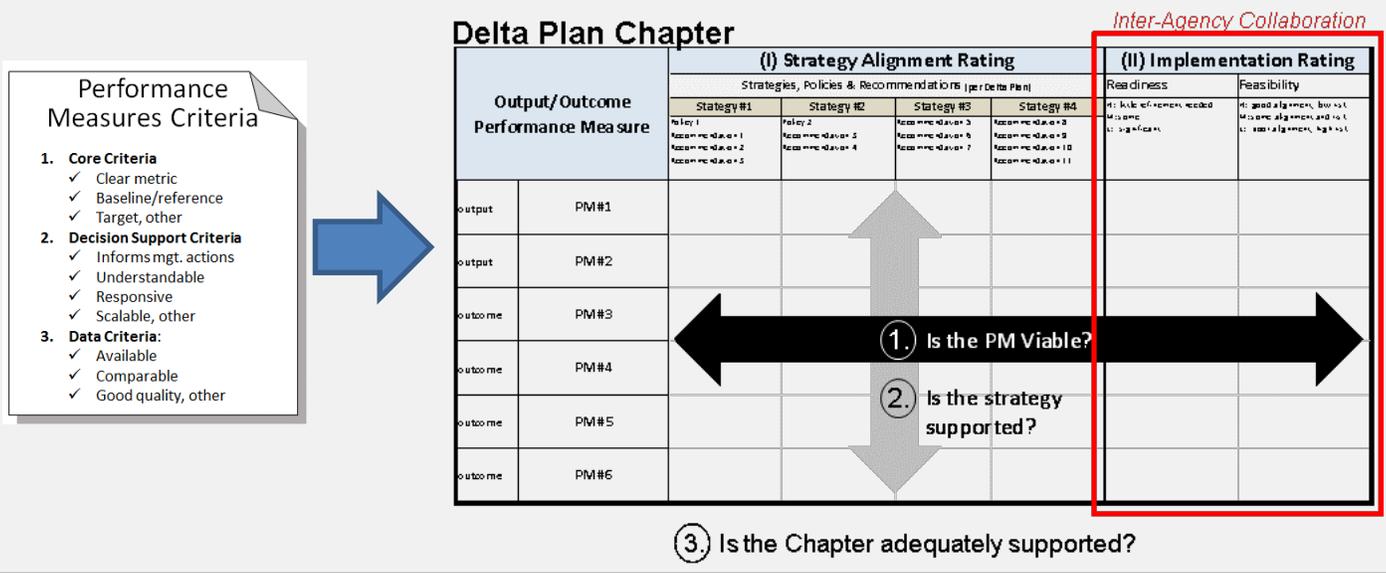
All output/outcome measures assessed against screening criteria, Delta Plan policy chapters (Goals), and strategies to answer three broad questions:

- Is the measure viable? – Sessions were held with Council subject matter experts (planning and science staff). The purpose of these sessions was to discuss the degree to which the measure, as documented in the Delta Plan, helped to inform progress against each Strategy. An implementation rating was also drafted, which reflects readiness (little, some or significant refinement needed) and feasibility to implement (high, medium or low effort/risk).
- Is the strategy supported? – The team also looks at the degree to which each strategy appears supported by one or more performance measures. Will the measures, when implemented, inform management strategic decisions? Any gaps are flagged as focus areas for identifying candidate ‘new’ measures.
- Is the Delta Plan goal supported? – The team reviews the entire suite of measures supporting each Delta Plan policy chapter (Goal) to brainstorm any additional gaps where new performance measures might be needed.

As an initial screening, this strategy fit/gap review helps to identify main areas of potential refinement.

FIGURE 5 – PERFORMANCE MEASURE/DELTA PLAN STRATEGY FIT-GAP

EACH PERFORMANCE MEASURES (PM) WAS ASSESSED AGAINST PM SCREENING CRITERIA AND DELTA PLAN GOALS AND STRATEGIES TO IDENTIFY AREAS OF FIT/GAP. REFINEMENTS OR NEW MEASURES WERE THEN DEVELOPED TO ADDRESS GAPS.



2.3 Methods Proof-of-Concept ('Pilot')

This step helps confirm the viability and rigor of process and methods. First, the specification criteria defined in Step 1 are applied to an initial subset of ten Performance Measures. This results in a completed 'Performance Measure Specification Sheet' for each pilot measure. Supporting analysis (implementation considerations) and sample reporting are also

documented in the specification. These results are then consolidated and documented in a comprehensive internal report, which is then reviewed by senior executive management. Feedback is obtained and methods are refined where needed. Accomplishments include:

- Pilot Measures Full Specification – Two measures are selected from each Delta Plan chapter, having good alignment with the Council's priorities and also good opportunity for interagency coordination/collaboration.
- Performance Measures Internal Management Report (December 2014) – The report was first distributed internally for management review/feedback. In addition to the full specification and supporting analysis of ten output/outcome performance measures, the contents also included full progress reporting related to Administrative Performance Measures and tracking capabilities/tools. The content was then updated in 2015 and used in developing and delivering the August 2015 Council staff report.

2.4 Reporting Proof-of-Concept ('Pilot')

Based on management input, the team revised its methods and then focused attention in developing draft recommendations for refining measures and reporting progress. This involved a comprehensive status update for the Council during the August 2015 council meeting.

- Performance Measures Staff Report (August 2015) – Contents included:
 - ✓ Delta Plan Progress Overview, including qualitative scoring by chapter.
 - ✓ Delta Plan Progress by chapter and strategy, highlighting a select subset of seven 'pilot' output/outcome performance measures. Full external reporting for each of these pilot measures were included as attachments.
 - ✓ Proposed refinements and additional performance measures.
 - ✓ Full catalog listing all Delta Plan performance measures and classifying the degree of refinement recommended.

Step 3: Refine

Once the overall approach to methods and reporting were vetted through the proof-of-concept pilot in Step 2, the team expanded refinement recommendations in preparation for Council review/adoption. This included formal outreach (including online survey and public workshop) to help ensure the opinions of partner agencies/subject matter experts and public stakeholders were considered.

3.1 Expand Refinement Recommendations

The extensive progress report, delivered to the Council in August, 2015, provided the foundation for further refining output/outcome performance measures. Between September and December 2015, staff worked closely with Council planning staff and subject matter experts in expanding refinements for each measure in the following areas. For each chapter, a series of iterative meetings were held, evaluating each measure against the screening criteria.

- Wording changes – Wording changes varied, depending on the need to better align the measure statement to the Delta Plan strategy the performance measure supports.

- Metric – Metrics are vital to quantitatively tracking progress over time. Where applicable, metrics are compared to baseline/reference conditions and future targets. An example is: Frequency of achieving >17,000 acres of inundation for 14 or more consecutive days in the Yolo Bypass.
- Baseline/Reference Condition – A standard or benchmark is important for comparing the current condition against.
- Data Source – A reliable data source is needed for tracking the metrics in a performance measure. This will allow for examining progress and/or trends against a reference condition. Determining data sources and their quality, duration, and dependability is also vital for evaluating the potential effectiveness of performance measures.
- Additional measure needed – In cases where a Delta Plan strategy was identified as not adequately supported by a performance measure (see Step 2.2, strategy fit/gap screening), an additional ‘new’ measure was identified to address the gap.
- Reclassify needed – Reclassifying a performance measure when needed is useful if the original performance measure is no longer identified as an output/outcome performance measure, but now reads and can be classified as an administrative measure.

3.2 Obtain Delta Science Program (DSP) Input

The results of the prior step were then synthesized in a draft comprehensive catalog of new and revised output/outcome performance measures by chapter. This catalog was then reviewed by the Lead Scientist of the Delta Science Program (DSP). A series of meetings were conducted with the Lead Scientist, and DSP staff members were also engaged as requested by the Lead Scientist. This review resulted in additional refinements. For example:

- Flows – Establishing more natural functional in-delta flows is no longer one performance measure, but has now been separated into three performance measures to assess flows in the Delta (e.g. floodplain connectivity within Yolo Bypass, spring flood pulses into the Delta, and gradual spring/summer recession flows). Additionally, new metrics, solid baselines, targets, and data sources were discussed for all three flow-related performance measures.

3.3 Obtain Outside Feedback

The expanded refinements from Step 3.2 were then prepared for outside input, including:

- Calls with specific outside experts – Additional comments not obtained elsewhere (e.g. through the online survey or public workshop) on the revised recommendations were solicited through one-on-one calls. For example, staff with the Sacramento Regional County Sanitation District discussed Chapter 6 performance measures dealing with water quality, in particular pesticides and nutrients.
- Collaborative Meetings/Conference Calls – Many collaborative meetings with internal experts to the Council’s staff and with other state implementing agencies were held and comments incorporated (e.g. the Delta Protection Commission helped develop new measures on Delta as Place). A prime example of collaborative conference calls is the Chapter 3 *Water Reliability* review with the Department of Water Resources (DWR).

DWR provided input concerning which performance measures for Chapter 3 had appropriate metrics, targets and baselines and which did not.

- Tailored Online Survey – The revised recommendations to the Delta Plan were provided to a select subset of 65 external subject matter experts representing state and local agencies, stakeholders, and others who were invited to review and comment. An online survey, which was made available from November 5-19, 2015, was used to solicit input on individual output and outcome measures. Please refer to Attachment 1 to view a sample of the online public survey (template).
- Public Workshop – An all-day public workshop was held on November 9 to review staff recommended revisions to performance measures and to solicit input from stakeholders and the public. However, public comment was primarily provided in writing through the use of the online survey.

Current status: As of the date of this report, the project team has completed the activities through Step 3.3. Steps 3.4 and 3.5 are currently active, and Step 3.6 is pending for completion.

3.4 Obtain Delta Independent Science Board (DISB) Input – A Focus on the Process Used to Date

Before proceeding to Step 4 (data gathering and analysis for the new and revised performance measures), staff is requesting a review of the overall process used to develop the new and refined performance measures (documented herein).

3.5 Obtain Delta Stewardship Council Input – Refinement Recommendations

The complete current catalog of new and revised output/outcome performance measures with refinement recommendations has been delivered to the Council, and staff also is requesting Council review and feedback. Once the DISB review of the process used to develop performance measures is completed, this report will be communicated to the Council for their deliberations concerning adoption and refinement of the new and revised performance measures.

3.6 Obtain Delta Stewardship Council Approval to Proceed to Step 4 (Data Gathering and Analysis)

The complete current catalog for new and refined performance measures to the Delta Plan was delivered to the Council during the December 17th 2015 Council meeting for their consideration. Council review and feedback is requested for the February 2016 meeting. At this same time the DISB is evaluating the process and methodology that Delta Stewardship Council staff used to develop the new and refined performance measures. Those proposed performance measures have been developed with stakeholder input and were also the subject of a public workshop on November 9, 2015.

The DISB has indicated that it will discuss Board members' initial review comments at its public teleconference in mid-January and will issue a final evaluation of the methodology with recommendations in mid-February.

Staff will address the DISB's process and methodology recommendations prior to the Delta Stewardship Council meeting in late February by updating the methodology and revising the new and refined performance measures as needed, so that those new and refined performance measures will be ready for Council adoption at the February meeting.

Step 4: Data Gathering and Analysis

Once adopted by the Council, the project team will undertake an extensive and detailed effort to collect and analyze data for the performance measure refinements and new performance measures. Data will be collected and analyzed. This effort is expected to span five or six months in 2016.

4.1 Collect Data

Staff procedures will be developed, approved and implemented to collect and prepare the data necessary for reporting. The scope of data collection and types of data are specific to each performance measure.

4.2 Synthesize/Analyze Information

The planning staff, the Lead Scientist of the DSP, and subject matter experts will be directly involved in the task to synthesize data collected and prepare messaging (e.g., What does the data tell us about the performance of the system? Are management actions having the desired effect? Is the Delta Plan 'working'? Is the performance measure itself sufficient to assess progress?)

Step 5: Report and Manage

The full suite of performance measures will then be publicly reported on a regular basis to track Delta Plan progress. This will comprise quantitative tracking over time and qualitative messaging. The performance measures inform management actions by Delta Plan strategy and policy chapter (Goal).

5.1 Implementation Reporting

Information concerning performance measures will be reported in quantitative and qualitative terms through a variety of communication channels. Examples include:

- Online dashboard – Using an intuitive/user-friendly interface, outside stakeholders will be able to access performance results by Delta Plan strategy and policy chapter (Goal). Related information also will be made readily available, such as Delta Plan policies and recommendations, problem statements and links to current research.
- Annual Report – Implementation of Delta Plan policies and recommendations will be tracked via performance measures. Progress toward meeting goals and objectives will be communicated within the Council's Annual Reports. These reports will convey areas of progress or challenges to progress on an annual basis.
- Delta Plan Interagency Implementation Committee (DPIIC) – DPIIC meets semi-annually and brings together managers and directors of 17 state and federal agencies

with substantive responsibilities in the Delta. Performance measures (administrative, output and outcome) will be very useful in supporting DPIIC discussions, decisions, and program reviews.

5.2 Continuous Improvement

Adaptive management is a key principle in Delta Plan implementation success, and performance measurement plays an important role in the adaptive management cycle. Once finalized and reported, Delta Plan performance measures shall not remain static. The measures will be continually re-evaluated against the screening criteria to confirm utility for progress tracking and to identify any needed refinements. As stated in the Delta Plan, the initial set of performance measures shall be expanded and refined after adoption of the Delta Plan and considered for inclusion in subsequent updates of the Delta Plan. The Delta Plan states:

“Development of informative and meaningful performance measures is a challenging task that will continue after the adoption of the Delta Plan. Performance measures need to be designed to capture important trends and to address whether specific actions are producing expected results. Efforts to develop performance measures in complex and large-scale systems like the Delta are commonly multiyear endeavors. The Council will improve all performance measures, but will focus on outcome measures through a multiyear effort, using successful approaches for developing performance measures employed by similar efforts elsewhere... .”

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Attachment 1: Performance Measures Public Survey

The pages which follow represent the online survey applied for obtaining outside input (partner agencies and the public). A separate survey was developed and published for each of the five Delta Plan policy chapters. The Survey for Chapter 4 (Protect, Restore, and Enhance the Delta Ecosystem) is presented here as a representative example.



Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Materials for November 9th Public Workshop - Your Feedback Please

Thank you for your interest in the Delta Stewardship Council's Performance Measures for Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem. Performance measures are defined for tracking progress in achieving the Delta Plan's goals. Performance measures should inform management actions, and information learned from performance measures will be an important part of how the Council determines when and how to update the Delta Plan as part of its adaptive management process.

Your feedback is requested: Council staff has drafted recommendations for refining the Performance Measures for this chapter. This online tool provides those recommendations and asks for your review and comment in three steps:

- **Step 1 – Online Review and Comment:** The pages which follow provide a chapter overview followed by download links to performance measures materials and a few easy options to provide feedback online. To get started, please provide your contact information below and click 'Save and Continue'. You can close this tool anytime and return to it later. Your work will be saved.
- **Step 2 – Public Workshop:** A public workshop will be held on November 9th, 2015, at the Sacramento Public Library, 828 I Street, Sacramento in the East Meeting Room. Chapter 4 performance measures will be discussed starting from 9:00a - 10:15a. After downloading and commenting on the materials provided on the following pages, we also encourage your attendance at the workshop either in person or remotely by WebEx. The workshop agenda and remote access instructions are provided here: [Workshop Meeting Agenda](#)
- **Step 3 – Post-Workshop Feedback:** This online tool will remain available to you through the public comment period ending on November 19th.

Should you have any questions, please contact Lita Brydie, Delta Stewardship Council, at lita.brydie@deltacouncil.ca.gov or (916) 445-0769.

Thank you.

* 1. Please enter your contact information:

Name

Organization

Email Address

Phone Number



Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Chapter Overview

The Delta Plan goal defined in this chapter is to protect, restore, and enhance the Delta ecosystem. Achieving this goal is further supported by the following planning components:

- **Strategies:** Several management strategies are defined for achieving the goal. The strategies for this chapter are listed in the figure below and further described in a report provided on the following page of this survey.
- **Policies and Recommendations:** Each strategy is further supported by regulatory Policies (enforceable by the Council's appellate authority) and Recommendations (non-regulatory calls to action). The policies and recommendations for this chapter are listed in the figure below and further described in a report provided on the following page of this survey.
- **Performance Measures:** Finally, performance measures are defined for tracking progress. The full list of current Output and Outcome performance measures for this chapter are listed below. This list below does not include recent staff refinement recommendations. Those recommendations are provided in a report provided on the following page of this survey for your use in answering survey questions which follow.

CHAPTER 4 – ECOSYSTEM RESTORATION



The Delta Reform Act of 2009 requires the Delta Plan to include performance measures that enable the Council to track progress in meeting its objectives. These performance measures are to include quantitative or other “measurable assessments of the status and trends” of the health of the Delta, as well as the reliability of the state’s water supply exported from the Sacramento and San Joaquin river watersheds. The Output and Outcome Performance Measures identified to the Ecosystem Restoration Goal are listed below: ‘output’ measures are used to quantify management actions in the delta (e.g., number of acres restored); ‘outcome’ measures are used to track the impacts of those management actions (e.g., abundance of native species using restored habitat).

Reference #	Type	Output and Outcome Performance Measures as currently worded in the Delta Plan
4.27	Output	Pilot scale Delta habitat restoration projects are developed and initiated in the priority areas described in ER R2 by 2015. These projects include tidal brackish and freshwater marsh as well as floodplain restoration, and have clear adaptive management plans aimed at improving outcomes and providing lessons for the development of large-scale restoration projects. Metrics: acres restored by habitat type, and lessons learned.
4.28	Output	The SWRCB adopts Delta flow objectives by June 2, 2014.
4.30	Outcome	Progress toward achieving the State and federal “doubling goal” for wild Central Valley salmonids relative to 1995 levels. Trends will be derived from long-term salmonids monitoring surveys conducted by the National Marine Fisheries Service, US Fish and Wildlife Service, and others.
4.31	Outcome	Progress toward restoring in-Delta flows to more natural functional flow patterns to support a healthy estuary. Metrics: results from hydrological monitoring and hydrodynamic modeling.
4.32	Outcome	Progress toward the documented occurrence and use of protected and restored habitats and migratory corridors by native resident and migratory Delta species. Trends in occurrence, use, and performance of native species in protected and restored habitats and corridors will be upward over the next decade. These trends will be derived from animal and plant monitoring surveys that are conducted as part of adaptive management strategies for the protection and restoration of these areas.
4.33	Output	The SWRCB adopts flow objectives for the major tributaries by 2018 (or as soon as reasonably possible).
4.34	Output	The DFW and other appropriate agencies fully implement the list of “Stage 2 Actions for Nonnative Invasive Species.”
4.35	Outcome	Progress toward decreasing annual trends in both the number of new and existing aquatic and terrestrial nonnative species, and the abundance and distribution of existing aquatic and terrestrial nonnative species in the Delta over the next decade. These trends will be derived from long-term animal and plant monitoring surveys conducted by the Interagency Ecological Program agencies, the California Department of Boating and Waterways, the U.S. Department of Agriculture, the San Francisco Estuary Institute, and others.



Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Materials for November 9th Public Workshop - Your Feedback Please

Please download and review the following documents and then select an option for participating in our request for feedback:

- **Performance Measures including Draft Staff Recommendations:** This document forms the basis of the Survey questions which will follow. Please review thoroughly and keep the document open (or print) for your reference when answering survey questions.

Click the following link to download report. Internet Explorer is the recommended browser.

Depending on settings, right-click > 'open in new tab' may be necessary.

[Performance Measures including Draft Staff Recommendations](#)

- **Chapter Strategies, Policies and Recommendations:** This is an extract from the Delta Plan, describing each Strategy and supporting Policies and Recommendations. The alignment of Performance Measures in tracking Strategy progress is an essential consideration in evaluating Performance Measures for improvement. Your review of the strategies is therefore important in this Survey.

Click the following link to download report. Internet Explorer is the recommended browser.

Depending on settings, right-click > 'open in new tab' may be necessary.

[Chapter Strategies, Policies and Recommendations](#)

*** 1. Your online feedback in advance of the November 9th workshop would be very much appreciated. For your convenience, we provide a few options. Let us know which is best for you:**

- One comment: I would prefer to provide one comment for this chapter, and then close this online tool.
- Ratings and comments for each strategy: I would like to provide comments/ratings regarding how well measures support each strategy. This will take a few more minutes of time, but I understand responses for each individual measure will help staff better identify specific measures to focus on during the workshop.

2. After providing your online comments, are you also able to join us at the November 9th workshop?

- In person: Yes. I will plan to attend the workshop in person. I have reviewed the PDF notice provided on the entry page of this online tool with special note of the start/end times for this chapter.
- Remotely: Yes, however, I prefer to attend the workshop via WebEx session. I have reviewed the PDF notice including dial up instructions.
- No thank you. I am unable to attend the workshop either in person or remotely. However, I have provided comments online.



Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Strategy 1: Create More Natural Functional Flows

This page of the survey pertains specifically to Chapter 4, Strategy 1: Create More Natural Functional Flows.

The Policies, Recommendations and Performance Measures in support of this strategy are provided in the reports provided on the Survey Materials to Download page. As already noted, it is necessary to have both documents open now and throughout the remainder of this survey, for your direct reference while answering survey questions. When responses below are complete, select 'Save and Continue' to progress to the survey rating/questions for the next Strategy in this chapter. Thank you.

1. Rating: What is the value of each measure for tracking progress of the strategy? The measures listed below should help to track progress in achieving the strategy identified above. Carefully review the performance measures as revised by Staff (the right-most column in the Performance Measure Draft Staff Recommendations titled "Recommended Revised Wording"). Are the revised measures valuable in tracking progress against the Strategy? To answer this question, please indicate your rating using the following 5-point scale: no value for tracking progress (or unknown), poor value, some value, good value or excellent. Following the rating, a narrative survey question is provided for your supporting comments and ideas.

	None/Unknown	Poor	Some	Good	Excellent
Measure 4.28	<input type="radio"/>				
Measure 4.31	<input type="radio"/>				
Measure 4.33	<input type="radio"/>				

2. Are there other refinements or new performance measures that would be valuable in tracking progress of the strategy? Considering your rating responses above, please describe any further refinements or new measures which you feel would be valuable in tracking Strategy progress.





Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Strategy 2. Restore Habitat

This page of the survey pertains specifically to Chapter 4, Strategy 2: Restore Habitat.

The Policies, Recommendations and Performance Measures in support of this strategy are provided in the reports provided on the Survey Materials to Download page. As already noted, it is necessary to have both documents open now and throughout the remainder of this survey, for your direct reference while answering survey questions. When responses below are complete, select 'Save and Continue' to progress to the survey rating/questions for the next Strategy in this chapter. Thank you.

1. Rating: What is the value of each measure for tracking progress of the strategy? The measures listed below should help to track progress in achieving the strategy identified above. Carefully review the performance measures as revised by Staff (the right-most column in the Performance Measure Draft Staff Recommendations titled "Recommended Revised Wording"). Are the revised measures valuable in tracking progress against the Strategy? To answer this question, please indicate your rating using the following 5-point scale: no value for tracking progress (or unknown), poor value, some value, good value or excellent. Following the rating, a narrative survey question is provided for your supporting comments and ideas.

	None/Unknown	Poor	Some	Good	Excellent
Measure 4.27	<input type="radio"/>				
Measure 4.30	<input type="radio"/>				
Measure 4.32	<input type="radio"/>				

2. Are there other refinements or new performance measures that would be valuable in tracking progress of the strategy? Considering your rating responses above, please describe any further refinements or new measures which you feel would be valuable in tracking Strategy progress.





Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Strategy 3. Improve Water Quality To Protect The Ecosystem

The Delta Plan goal to improve water quality for the environment, as well as human health, is defined in Delta Plan Chapter 6. The performance measures listed in Chapter 6 will also be used to track progress against Chapter 4 Strategy 3 as identified here. Accordingly, performance measures are not listed below.

Please select 'Save and Continue' to continue to the next strategy.



Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Strategy 4. Prevent Introduction Of And Manage Nonnative Species Impacts

This page of the survey pertains specifically to Chapter 4, Strategy 4: Prevent Introduction Of And Manage Nonnative Species Impacts.

The Policies, Recommendations and Performance Measures in support of this strategy are provided in the reports provided on the Survey Materials to Download page. As already noted, it is necessary to have both documents open now and throughout the remainder of this survey, for your direct reference while answering survey questions. When responses below are complete, select 'Save and Continue' to progress to the survey rating/questions for the next Strategy in this chapter. Thank you.

1. Rating: What is the value of each measure for tracking progress of the strategy? The measures listed below should help to track progress in achieving the strategy identified above. Carefully review the performance measures as revised by Staff (the right-most column in the Performance Measure Draft Staff Recommendations titled "Recommended Revised Wording"). Are the revised measures valuable in tracking progress against the Strategy? To answer this question, please indicate your rating using the following 5-point scale: no value for tracking progress (or unknown), poor value, some value, good value or excellent. Following the rating, a narrative survey question is provided for your supporting comments and ideas.

	None/Unknown	Poor	Some	Good	Excellent
Measure 4.34	<input type="radio"/>				
Measure 4.35	<input type="radio"/>				

2. Are there other refinements or new performance measures that would be valuable in tracking progress of the strategy? Considering your rating responses above, please describe any further refinements or new measures which you feel would be valuable in tracking Strategy progress.





Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Strategy 5. Improve Hatcheries & Harvest Management

This page of the survey pertains specifically to Chapter 4, Strategy 5: Improve Hatcheries & Harvest Management.

The Policies, Recommendations and Performance Measures in support of this strategy are provided in the reports provided on the Survey Materials to Download page. As already noted, it is necessary to have both documents open now and throughout the remainder of this survey, for your direct reference while answering survey questions. When responses below are complete, select 'Save and Continue' to progress to the survey rating/questions for the next Strategy in this chapter. Thank you.

1. **Rating: What is the value of each measure for tracking progress of the strategy?** The measures listed below should help to track progress in achieving the strategy identified above. Carefully review the performance measures as revised by Staff (the right-most column in the Performance Measure Draft Staff Recommendations titled "Recommended Revised Wording"). Are the revised measures valuable in tracking progress against the Strategy? To answer this question, please indicate your rating using the following 5-point scale: no value for tracking progress (or unknown), poor value, some value, good value or excellent. Following the rating, a narrative survey question is provided for your supporting comments and ideas.

	None/Unknown	Poor	Some	Good	Excellent
Measure 4.36	<input type="radio"/>				

2. Are there other refinements or new performance measures that would be valuable in tracking progress of the strategy? Considering your rating responses above, please describe any further refinements or new measures which you feel would be valuable in tracking Strategy progress.





Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Closing Comments

1. **Do you have any other suggestions for new performance measures?** We include this last text box to let us know any other additional performance measures you feel would be valuable in tracking progress against this Chapter goal.



Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Comments Page

*** 1. Please enter any comments you may have regarding Performance Measures for this Chapter**



Delta Plan Chapter 4 - Protect, Restore, and Enhance the Delta Ecosystem

Closing

This completes the survey. Thank you for taking the time to provide your input. Please click 'Done'.