

Performance Measure 4.14: Increased Funding for Restoring Ecosystem Function

Performance Measure (PM) Component Attributes

Type: Output Performance Measure

Description

Increased funding for projects that possess attributes to restore ecosystem functions and support a resilient, functioning Delta ecosystem.

Expectations

Increased funding for projects that restore hydrological and geomorphic processes, are large-scale, improve connectivity, support native vegetation communities, and contribute to recovery of special-status species contributes to restoring ecosystem functions and supports a resilient, functioning Delta ecosystem (Ecosystem Restoration Tier 1 or 2 attributes).

Metric

Project funding of covered actions that file a certification of consistency under New ER Policy “A” (Disclose Contributions to Restoring Ecosystem Function). This metric excludes funding for projects that do not include protection, enhancement, or restoration of the Delta ecosystem. This metric will be reported annually.

Baseline

Set at zero as of the effective date of New ER Policy “A.”

Target

By 2030, 80 percent of total funding for covered action projects that file certifications of consistency with New ER Policy “A” is for projects with Ecosystem Restoration Tier 1 or 2 attributes.

Basis for Selection

To achieve the subgoals (Water Code section 85302(e)) for restoring the Delta ecosystem set forth in the Delta Reform Act, the Delta Plan recommends implementation of projects with specific priority attributes that restore ecosystem functions and support a resilient, functioning Delta ecosystem, and an increase in funding for those high priority projects. High priority projects restore hydrological and geomorphic processes, are large-scale, improve connectivity, support native vegetation communities, and contribute to recovery of special-status species. This measure tracks the total funding of high-quality conservation projects proceeding through the covered action process. A covered action, per Water Code section 85057.5, is a plan, program, or project as defined pursuant to Section 21065 of the Public Resources Code. This measure evaluates the percentage of funding for high-tier projects according to the definition in New ER Policy “A” (Chapter 4, Appendix 3A).

A project’s tier is determined by project proponents, based on the expected ecosystem benefits for conservation projects in the Delta (Appendix 3A of the Delta Plan). New ER Policy “A” requires proponents to disclose which priority attributes their project supports. The priority attributes are characteristics of the protection, restoration, and enhancement projects which best available science indicates are critical to achieving the characteristics of a healthy Delta ecosystem. This is further described in Appendix 3A of the Delta Plan. Below is a summary of priority attributes for ecosystem restoration actions in the Delta:

- 1) **Restoring Hydrological, Geomorphic, and Biological Processes** – Targeting the reestablishment of hydrological, geomorphic, chemical, and biological processes in conservation projects, also termed *process-based restoration*, is key to improving habitat characteristics related to the spatial arrangement of habitat patches, vegetation community composition and structure, and habitat requirements of sensitive specialist species.
- 2) **Being Large-Scale** – Conservation projects that incorporate large spatial scales and long time frames will increase the likelihood of creating natural systems capable of sustaining desired functions in uncertain future environmental condition (Peterson et al. 1998, SFEI-ASC 2016). Critical biotic interactions and physical processes depend on appropriate levels of heterogeneity (Larkin et al. 2017) made possible by large-scale projects. Large intact core areas with minimal human intervention are important for facilitating the ecological interactions that are important to species persistence (Soule and Terborgh 1999).
- 3) **Improving Connectivity** – Connectivity is essential for the long-term persistence of native species. In the Delta, unobstructed flow through the channel system,

lateral connections between channels and floodplains, and horizontal connections between surface and groundwater are different facets of connectivity. Nutrient and carbon cycling, vegetation community patch dynamics, and species-habitat interactions improve with increased connectivity (Vannote et al. 1980, Naiman et al. 1988, Ward 1989, Junk et al. 1989, Poff et al. 1997, Naiman and Decamps 1997). The various aspects of connectivity are crucial to the ability of riparian and wetland systems to support biodiversity. Improving connectivity will increase ecosystem resilience and adaptive potential in the face of a rapidly changing climate (Naiman et al. 1993, Seavy et al. 2009).

- 4) **Increasing Native Vegetation Cover** – The loss of native vegetation cover has greatly reduced habitat complexity in the Delta over the last 160 years, completely altering aquatic and intertidal food-web dynamics (Moyle et al. 2010, Whipple et al. 2012). This loss of ecosystem complexity has been coupled with and exacerbated by substantial reduction in land-water connections (SFEI-ASC 2014 and 2016). Restoration of complex ecosystems will require reestablishment of native vegetation communities and the underlying processes that support their recruitment, disturbance regimes, and community succession. Restoring a variety of native vegetation cover types can promote ecological resilience and enhance native biodiversity by providing a range of habitat options for species, thus expanding the types and numbers of species that a landscape can support.
- 5) **Contributing to the Recovery of Special-Status Species** – At least 35 native plant species and 86 fish and wildlife species in the Delta are imperiled by human activities, and they are at varying risks of either local extirpation or outright extinction. Habitat loss and degradation, and the resulting impacts on food-web dynamics, have been a major cause of the at-risk status of these species. Supporting ecosystem function such as nutrient transfer and primary production is an important requirement for the recovery of these species.

Tier 1 projects have all five priority attributes. Tier 2 projects have priority attribute 5 (contributing to the recovery of special-status species) and three of the remaining four priority attributes. New ER Policy “A” (Disclose Contributions to Restoring Ecosystem Function) requires project proponents to disclose whether individual covered actions possess the listed priority attributes needed to certify consistency with the Delta Plan.

Linkages to Delta Reform Act and the Coequal Goals

Delta Reform Act

Achieving the Delta Reform Act vision for the Delta ecosystem, requires the reestablishment of tens of thousands of acres of functional, diverse, and interconnected

habitat. Funding is needed to implement large-scale restoration projects and to support multi-benefit projects that go beyond impact mitigation. State and local land use actions, identified as *covered actions* pursuant to 85057.5, must be consistent with the Delta Plan (Water Code section 85022(a)). Per 85057.5, a covered action is a plan, program, or project as defined pursuant to section 21065 of the Public Resources Code that meets all of the following conditions:

- 1) Will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh
- 2) Will be carried out, approved, or funded by the state or a local public agency
- 3) Is covered by one or more provisions of the Delta Plan
- 4) Will have a significant impact on achievement of one or both of the coequal goals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and state interests in the Delta

Projects with high-priority attributes that restore ecosystem functions and support a resilient, functioning Delta are critical to achieving the following characteristics of a healthy Delta ecosystem described in Water Code section 85302(c):

- “Viable populations of native resident and migratory species” (Water Code 85302(c)(1)).
- “Functional corridors for migratory species” (Water Code 85302(c)(2)).
- “Diverse and biologically appropriate habitats and ecosystem processes” (Water Code 85302(c)(3)).
- “Reduced threats and stresses on the Delta Ecosystem” (Water Code 85302(c)(4)).
- “Conditions conducive to meeting or exceeding the goals in existing species recovery plans and state and federal goals with respect to doubling salmon populations” (Water Code 85302(c)(5)).

Increased funding and consequently implementing projects with high-priority attributes contributes to improved “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” (Water Code 85211(a)).

Delta Plan Core Strategy

4.2 Restore Ecosystem Function.

4.4. Protect Native Species and Reduce the Impact of Nonnative Invasive Species.

Methods

Baseline Methods

Set at zero as of the effective date of New ER Policy “A”

Target Methods

The Delta Reform Act established a process for qualifying projects to establish consistency with the Delta Plan (Water Code section 85022). This means that a state or local agency proposing to undertake a qualifying action (covered action) must submit to the Council a written certification of consistency with detailed findings as to whether the covered action is consistent with Delta Plan regulations. Any person may appeal a certification of consistency to the Council.

The Council’s covered action website and the associated database (2019) provide access to the certified covered actions and related details, including the estimated project cost. Under New ER Policy “A”, certified projects include, when applicable, a disclosure of project tiers, priority attributes supported by the project, and information on the project cost.

Each certification of consistency has three sections. Section 1 is the agency profile where project proponents provide details about the agency filing to certify consistency with the Delta Plan. Section 2 is a covered action profile where the project proponent provides information about the covered action. The proponent discloses an estimated project cost along with a description of the project, a timeline, and other materials describing the project. The estimated project funding from this section of the consistency filing will be used as the primary data source. Section 3 is a policy-by-policy description of the project proponent’s findings regarding consistency with the Delta Plan. With regard to each policy, the proponent may find that the covered action is consistent, inconsistent, or that the policy is not applicable to the covered action. Any certification of consistency to which New ER Policy “A” applies will be tracked for this performance measure. A covered action will only be counted under this performance measure after a consistency certification has been filed.

Data Sources

Primary Data Sources

This is the primary data source to be used to track this performance measure:

- 1) [Delta Plan Covered Actions Website](#). A state or local agency proposing to undertake a qualifying action (covered action) must submit a certification of consistency with detailed findings as to whether the covered action is consistent with the Delta Plan. Covered actions certifications are available on the Council's website.
 - a) Content: Covered action certification of consistency document including disclosed amount of funding for the whole project (project cost).
 - b) Update Frequency: As certifications are submitted.

Alternative Data Sources

Alternative data sources will be used if project funding is not disclosed on the Council's covered actions website. Alternative data sources can be used concurrently with the primary data source, depending on best available science and the availability of the primary source.

- 2) [California Environmental Quality Act \(CEQA\) Clearinghouse](#)
 - c) Data Source: Project CEQA environmental impact report (EIR) includes cost of project alternatives considered. Covered actions have an associated EIR, as Delta Plan consistency certification is triggered by the CEQA process.
 - d) Update Frequency: As EIR project files are submitted.

Process

Data Collection and Assessment

Every year, Council staff will update the status of this performance measure by:

- 1) Downloading covered actions project documents from the covered actions website that certify under New ER Policy "A". Funding only for projects that file a certification of consistency under New ER Policy "A" will be included. The calculation will exclude funding for projects that do not include protection,

enhancement, or restoration of the Delta ecosystem (and will not need to certify under New ER Policy “A”).

- 2) Summing the total cost of all projects under New ER Policy “A”.
- 3) Filtering project documents by ecosystem restoration tier.
- 4) Summing the total cost of projects in ecosystem restoration Tier 1 and Tier 2.
- 5) Calculating the percentage of cost of projects in Tier 1 and Tier 2 with the total cost of all projects under New ER Policy “A”.
- 6) Displaying results on the [Performance Measures Dashboard](#).

Process Risks and Uncertainties

A linear increase in percent of funding for projects with Ecosystem Restoration Tier 1 or Tier 2 attributes may not be a reasonable expectation due to long lead times in restoration projects’ development and implementation. Uncertainty exists in time lags between a covered action filing of certification of consistency and on-the-ground implementation, and in the trajectory of restoring ecosystem functions.

Reporting

Every year, Council staff will report the status of this performance measure by:

- 1) Posting annual updates on the [Performance Measures Dashboard](#)
- 2) Displaying the status in Council annual reports (published in January)
- 3) Communicating management-relevant results at Council and Delta Plan Interagency Implementation Committee (DPIIC) public meetings
- 4) Presenting findings at relevant professional gatherings

Every five years, Council staff will assess and report the status of this performance measure by:

- 1) Communicate findings in the five-year review of the Delta Plan
- 2) Informing Council’s adaptive management and other relevant decision-making processes

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