

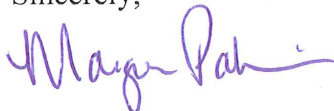
For example, if sea level rises by 60 centimeter as described in Section 6004(8)(A)(1) of the regulation, it is likely that the Delta will become saltier. This would affect the ecosystem in the Delta (i.e. change species present and change ecosystem functions) and it would affect the operation of the Central Valley and State Water Projects because they are currently required by law to maintain specific salinity conditions in the Delta to protect environmental, municipal, agricultural and industrial users². While it is known that the ecosystem and water operations state-wide must adapt to sea level rise, it is unknown how they will change. The regulations put potential applicants in a difficult position by requiring them to quantify changes in their project benefits for a given level of climate change absent knowledge of how the Delta ecosystem and state-wide water operations may adapt. The regulations should provide the opportunity to discuss potential adaptation strategies external to a project so changes in public benefits and potential adaptation strategies of a particular project are understood in the appropriate context.

Furthermore, from a practical perspective the current regulations should not contain a specific climate change scenario that is considered the best available in the year 2015 because climate change science is evolving independent of the Commission's timeline and process. If a second round of solicitation is desired in the future for any number of reasons (projects selected in the initial solicitation fail to advance, initial requests for funding are below what was expected, desired diversity of projects not represented, etc.) the 2015 climate change scenario will be out of date. Requiring use of the 'best available science' will help ensure that the regulations will remain relevant and will not constrain the options available to the Commission in the future.

The approach suggested in the attachment would enable the Commission to consider how public benefits may change in the future and provide a starting point for discussions with stakeholders and project proponents about adaptive management of public benefits in the future.

Suggested redline edits to the draft regulations are attached. Your consideration of our comments is greatly appreciated. If you would like to discuss our comments or have any questions, please do not hesitate to call me at (925) 688-8018 or Maureen Martin at (925) 688-8323.

Sincerely,



Marguerite Patil
Special Assistant to the General Manager

MP/MM:wec

Attachment

cc: Paula Landis, Executive Officer
Members of the California Water Commission

² State Water Resources Control Board Decision 1641

**Suggested Edits for the Water Storage Investment Program Quantification Regulations
Submitted January 11, 2016**

“Capital costs” means the costs of construction or acquisition of a tangible physical property with an expected useful life of 15 years or more. Capital costs include the following items:

- (A) Major maintenance, reconstruction, or demolition for purposes of reconstruction of facilities, reoperation, or retrofitting.
- (B) Equipment with an expected useful life of two years or more
- (C) Costs incidentally but directly related to construction or acquisition, including, but not limited to, project management, planning, engineering, construction management, architectural, and other design work, environmental impact reports and assessments, required environmental mitigation or compliance obligation expenses, permitting, regulatory agency fees, appraisals, legal expenses, site-land fee purchases, acquisitions of, and necessary easements, endowments for long term enhancement, financing costs including interest during construction.

Section 6003. Funding Commitments

(d) Funding for Permits and Environmental Documentation. Notwithstanding subsection (b), the Commission may provide funding for a project to obtain the necessary permits and complete environmental documentation when the conditional funding commitment is made. Funding for permits and environmental documentation shall be subject to the following conditions:

- (1) Funds will not be disbursed until the applicant enters into a funding agreement with the Commission and has met all disbursement conditions;
- (2) Funding for permits and environmental documentation is included in the conditional funding commitment; and
- (3) Funding for permits advanced under this provision shall not exceed 10 percent of the conditional funding commitment.

Section 6004. Requirements for the Quantification of Benefits

(a) The applicant shall quantify the magnitude of public and non-public benefits that would be provided by the proposed project. The applicant shall indicate whether a benefit is public or non-public to provide an accurate cost allocation to determine allowable Program funding. The magnitude of benefits shall be calculated using the physical, chemical, or biological change in each benefit resource condition that is created by or caused by the proposed project, less any negative impacts created or caused by the proposed project. To comply with this section, the methods used by the applicant to quantify the benefits shall use the best available science and include the following characteristics:

- (1) Define the Without-Project Future Conditions. The applicant shall define the without-project future conditions for surface water and groundwater operations and physical, chemical, biological, economic, and other resource conditions as needed to quantify the potential benefits and costs of the proposed project. The without-project future conditions shall include the infrastructure, population, land use, water use, water operations, laws, regulations, ~~future~~ climate and sea level conditions, and other characteristics relevant to the project that are assumed at a particular year in the planning horizon, consistent with the No Action and/or No Project alternative of the project’s environmental documents. The without-project future conditions shall be developed using best available information on existing conditions and projections of reasonably foreseeable future conditions. Reasonably foreseeable conditions that require actions of others or that are structural in nature must be defined sufficiently and

documented in feasibility study or environmental documentation in order to be included in the without-project future conditions.

~~(A) If the without-project future conditions are different from those shown in the applicant's CEQA No Project Alternative required by California Code of Regulations, Title 14, section 15126.6, subdivision(e), the applicant shall describe how and why the conditions are different and the implications of those differences, including the results of any sensitivity analyses conducted.~~

(B) The applicant's analysis of without-project future conditions shall include any watershed(s) or regions(s) that affect or are affected by the proposed project. If the project affects State Water Project or Central Valley Project operations or both, the analysis must include the watersheds where the affected State Water Project or Central Valley Project facilities, as applicable, are located.

~~(C) The without-project future conditions shall represent the "median level of change in future climate and sea level conditions" for California at mid-century (characterized by climate conditions during the 30 years surrounding 2050). The "median level of change in future climate and sea level conditions" are represented by a combination of changes in temperature and sea level for the period of (2036-2065) that differs from the historical period average (1961-1990) by the following amounts:~~

- ~~1. No change in average statewide precipitation;~~
- ~~2. Average statewide temperature of 4.9 degrees Fahrenheit warmer; and~~
- ~~3. Sea level rise of 30 centimeters.~~

Article 3. Quantification and Management of Benefits

Section 6004. Requirements for the Quantification of Benefits

(4) Monetize the Value of Project Benefits.

(I) In order to calculate the present value of the benefits for a project, the economic analysis requires dollar benefits for every year of the planning horizon. If the physical benefits calculated according to Section 6004 (3) cover a period that differs from the planning horizon, describe why and provide the calculations and assumptions used. ~~The climate change and sea level conditions for the without-project future conditions described in section 6004(a)(1)(C) represent year 2050. In calculating the benefits prior to 2050, applicants shall interpolate between current conditions benefits and 2050 conditions benefits. For projects extending beyond 2050, applicants shall use 2050 conditions as the basis for calculating benefits for each year from 2050 until the end of the planning horizon.~~

(8) Resiliency of Public Benefits Sources of Given Future Uncertainty.

The applicant shall conduct sensitivity-resiliency analyses to describe how the expected physical changes and public benefits ~~that would be~~ provided by the proposed project might change due to potential uncertainties not included in the without-project future conditions and the with-project future conditions described in Section 6004(a)(1)-(2).

(A) Sensitivity-Resiliency analyses, with the best available science, shall include:

1. Climate change and sea level rise.

- a. Quantification of changes in public benefits under a range of Quantitative analysis that includes projected changes in precipitation, temperature, and sea level that represent the "high

~~degree of change toward challenging future climate and sea level conditions” for California at mid-century in the year 2050. Climate change scenarios used to evaluate the resiliency of public benefits should be consistent with the best science available and technical guidance provided by the Commission and the Department. (characterized by climate conditions during the 30 years surrounding 2050). The “high degree of change toward challenging future climate and sea level conditions” are represented by a combination of changes in precipitation, temperature, and sea level for the period (2036-2065), that differs from the historical period average (1961-1990) by the following amounts:~~

- ~~(i) Average statewide precipitation of 11.4 percent drier;~~
- ~~(ii) Average statewide temperature of 5.0 degrees Fahrenheit warmer; and~~
- ~~(iii) Sea level rise of 60 centimeters.~~

~~b. Discussion and supporting quantitative or qualitative analysis to disclose of how potential future changes in the environment such as extreme changes in precipitation, temperature, sea level rise, biological communities, habitat conditions, and water quality, precipitation, temperature, and sea level in the region(s) that supply water to the project and receive water from the project might reduce affect the public benefits claimed. Describe and how, if reduced, operations of the proposed project could be adapted to sustain public benefits under extreme changes in the environment. Potential changes should represent climate changes at the watershed level that are regionally consistent in magnitude with projections of statewide changes in precipitation, temperature, and sea level for the period (2070-2099), that differs from the historical period average (1961-1990) by the following amounts:~~

- ~~(i) Average statewide precipitation of up to 15 percent wetter and up to 6 percent drier;~~
- ~~(ii) Average statewide temperature of at least 5.3 and up to 8.8 degrees Fahrenheit warmer; and~~
- ~~(iii) Sea level of at least 60 and up to 105 centimeters.~~

2. Future projects and water management actions:

a. Qualitative or quantitative analysis using future projects and water management actions ~~included in the applicant’s CEQA cumulative impact analysis~~ that could affect the public benefits claimed.