

California Code of Regulations
Title 23. Waters
Division xx. California Water Commission
Chapter yy. Safe, Clean, and Reliable Drinking Water Supply Act of 2012
Article zz. Methods for Quantification and Management of Public Benefits
(WORKING DRAFT)

§zz. Quantification of Public Benefits

Chapter 8 of the Safe, Clean, and Reliable Drinking Water Supply Act of 2012 (the Act) provides up to \$3 billion of the proceeds from the sale of General Obligation bonds to fund eligible water storage projects that provide certain public benefits. The Act adds §79744 to the California Water Code, requiring the California Water Commission (Commission), in consultation with the Department of Fish and Wildlife (CDFW) and the State Water Resources Control Board (State Water Board) and the Department of Water Resources (DWR) to

develop and adopt, by regulation, methods for quantification and management of public benefits described in Section 79743 by December 15, 2012. The regulations shall include the priorities and relative environmental value of ecosystem benefits as provided by the Department of Fish and Game and the priorities and relative environmental value of water quality benefits as provided by the State Water Resources Control Board.

The Act adds several additional sections to the Water Code providing guidance for the development of regulations under this Article. §79741 of the Water Code limits the projects eligible for funding under Chapter 8 to:

(a) Surface storage projects identified in the CALFED Bay-Delta Program Record of Decision, dated August 28, 2000, except for projects prohibited by Chapter 1.4 (commencing with Section 5093.50) of Division 5 of the Public Resources Code.

(b) Groundwater storage projects and groundwater contamination prevention or remediation projects that provide water storage benefits.

(c) Conjunctive use and reservoir reoperation projects.

(d) Local and regional surface storage projects that improve the operation of water systems in the state and provide public benefits.

The exception under part (a) above is for streams listed under the California Wild and Scenic Rivers Act.

Section 79743 of the Water Code identifies five types of public benefits eligible for public funding under the Act:

- (1) *Ecosystem improvements, including changing the timing of water diversions, improvement in flow conditions, temperature, or other benefits that contribute to restoration of aquatic ecosystems and native fish and wildlife, including those ecosystems and fish and wildlife in the Delta.*
- (2) *Water quality improvements in the Delta, or in other river systems, that provide significant public trust resources, or that clean up and restore groundwater resources.*
- (3) *Flood control benefits, including, but not limited to, increases in flood reservation space in existing reservoirs by exchange for existing or increased water storage capacity in response to the effects of changing hydrology and decreasing snow pack on California's water and flood management system.*
- (4) *Emergency response, including, but not limited to, securing emergency water supplies and flows for dilution and salinity repulsion following a natural disaster or act of terrorism.*
- (5) *Recreational purposes, including, but not limited to, those recreational pursuits generally associated with the outdoors.*

§zz.1. Applicability

The regulations in this Article apply to all applicants that request public funds to pay for public benefits of eligible water storage projects, as authorized in Chapter 8 of the Act.

Note: Authority cited: §79714, §79740-79749, Water Code.

§zz.2. Definitions

a) For purposes of this Article, the following definitions shall apply.

- (a) "Act" means the Safe, Clean, and Reliable Drinking Water Supply Act of 2012.
- (b) "Applicant" means the agency or group that is submitting information to the Commission and requesting funding for public benefits.

(c) “Application” means the package of information submitted by an applicant in support of its request for funding for public benefits under the guidelines in this Article.

(d) “CALFED Bay-Delta Program” means the program described in the Record of Decision dated August 28, 2000.

(e) “Commission” means the California Water Commission.

(f) “CDFW” means the California Department of Fish and Wildlife, formerly known as the California Department of Fish and Game.

(g) “Delta” means the Sacramento-San Joaquin Delta, as defined in Section 12220.

(h) “DWR” means the California Department of Water Resources.

(i) “Fund” means the portion of proceeds from bond sales authorized by the Act and identified in Chapter 8 as available to pay for public benefits of water storage projects.

(j) “Monetary benefit” means the dollar value of the estimated or expected level of public or nonpublic benefit provided by a proposed project.

(k) “Nonpublic benefit” means a benefit that does not fall within one of the five categories defined in §79743. Nonpublic benefits may nevertheless be paid for by a local, state, or federal public agency.

(l) “Panel” means the project evaluation panel appointed by the Commission to review applications and advise it on the projects’ eligibility and quantification of public benefits.

(m) “Physical benefit” is the amount of benefit provided in physical units; for example, numbers of fish, acre-feet of water, acres of habitat or flooding, numbers of boaters, or concentration of chemicals in water.

(n) “Proposed project” means the specific water storage project providing the public benefits for which funding is being requested.

(o) “Public agency” means a state agency or department, district, joint powers authority, city, county, city and county, or other political subdivision of the state.

(p) “Public benefit” means a benefit that falls within one of the five categories defined in Water Code §79743 eligible for consideration for State funding by the Commission. For purposes of quantification under this section, the following additional conditions shall apply:

- (1) Ecosystem improvement benefits must be the result of restoration of aquatic ecosystems and native fish and wildlife;
- (2) Water quality changes that contribute to restoration of aquatic ecosystems and native fish and wildlife, including those ecosystems and fish and wildlife in the Delta, are classified as ecosystem improvement benefits. Any other benefits from water quality

- improvements may be considered water quality benefits under this section;
- (3) Flood control benefits are reduction in flood damages, costs and losses. Flood damage reduction benefits on federal properties are not eligible for funding under this section;
 - (4) Emergency response benefits include use of stored water to reduce water supply losses and water quality costs caused by Delta levee failures, and benefits from improved ability to maintain water supply following earthquake.
 - (5) Only outdoor recreation benefits that occur on or adjacent to the project proposed for funding under this section, or that result from stream flow or reservoir surface area improvements caused by the project's operation , or system reoperation, are eligible.
- (q) "State Water Board" means the California State Water Resources Control Board.
- (r) "Water Code" means California Water Code.

Note: Authority cited: §79702.

§zz.3 Information Requirements

The Commission shall prepare and make available to all potential applicants, a solicitation package providing details on project eligibility and available funding. The package shall describe the requirements for the content, presentation and formatting of information submitted in support of an application, as well as a description of the review process and schedule; evaluation criteria; and other guidance to assist applicants. The package shall also include guidelines for quantifying public benefits [Note: reference here to the Guidelines].

a) Information to be Submitted by Applicants

Applicants shall submit a package of materials that includes:

- 1) A description and quantification of public benefits associated with the project prepared in compliance with §zz.5 (may be included as a component of the feasibility study below).
- 2) Draft environmental documentation that is or has been available for public review.
- 3) An Operations Plan, and a Monitoring, Assurances and Reporting Plan as described in §zz.7.
- 4) A Feasibility Study for the proposed project that includes the following elements:
 - i. Project purposes, including any public and non-public benefits the proposed project is designed to provide.

- ii. Project description, including facilities and operations and relationships with existing facilities and operations.
 - iii. All project costs, including replacement costs, and operations costs consistent with the Operations Plan, and costs of mitigation for any adverse environmental consequences identified in the draft environmental documentation.
 - iv. Demonstration of technical feasibility consistent with the Operations Plan, including a description of data and analytical methods, the hydrologic period, development conditions, hydrologic time step, and water balance analysis showing, for the with and without-project condition, all flows and water supplies relevant to the benefits analysis.
 - v. Description and quantification of all project benefits, including public benefits and nonpublic benefits, consistent with the Operations Plan using physical measures and, where possible, monetary benefits. Project benefits must be displayed as expected average annual values for each year of the planning horizon. Some ecosystem benefit must be quantified.
 - vi. A complete benefit-cost analysis showing benefits and costs to the State and its residents. A benefits-based allocation of costs sufficient to demonstrate that the project and the request for funding of public benefits comply with CWC §79746 and 79747.
 - vii. Financial analysis showing that sufficient funds will be available from public (including the funds requested in the application) and nonpublic sources to cover the construction and operation of the project over the planning horizon.
- 5) A statement that the proposed project is cost-effective in that the proposed package of public benefits cannot be provided by any other means at a substantially lower cost.
 - 6) A list of supporting studies that have been or will be completed.
 - 7) A list of required permits and notices, and their status, showing that each of these has been or will be completed.
 - 8) Letters of commitment must be submitted verifying that the governing boards of entities receiving at least 75 percent of the nonpublic benefits have voted to pay for their allocated cost share.
 - 9) A description of how the public benefits address the priorities and relative environmental values of ecosystem and water quality benefits summarized in §zz.6.

Note: Authority cited: §79747.

b) Public Hearing

The Commission will hold a public hearing on the solicitation package and application evaluation process to provide the public the opportunity to review and comment on the information and analysis required in applications; the review process including criteria, scoring

and ranking; the composition and role of the project evaluation panel (see §zz.4 below); and the Commission's decision process and timeline.

§zz.4 Process for Reviewing and Evaluating Funding Applications for Public Benefits

a) Project Evaluation Panel

The Commission will appoint a project evaluation panel (Panel) composed of technical experts from DWR, other state or federal agencies, academic institutions, and/or private industry.

The Panel shall include:

- at least one member each from the staff of CDFW and the and the State Water Board.
- members having relevant expertise to evaluate the technical information and analysis of public and nonpublic benefits contained in applications.

If a member of the Panel, or a member of his or her immediate family, is employed by an applicant, or by a consultant or independent contractor employed by an applicant, or by any agency or private entity that has been materially involved in the development or planning for a proposed project, the panel member shall make that disclosure to the other members of the panel and to the Commission. The Commission may, at its discretion, appoint a replacement for that member.

The panel shall review the information provided by each applicant and advise the Commission on:

- the completeness of the application and the merits of the proposed project (see §zz.3);
- whether the proposed project provides measurable improvements to the Delta ecosystem or to the tributaries to the Delta;
- the soundness of the application's analysis of public benefits (see §zz.5);
- the relationship of the proposed project's public benefits to the priorities and relative environmental values provided by CDFW and the State Water Board (see §zz.6);
- the expected return on public investment as measured by the amount of funds requested under the Act and the magnitude of the public benefits provided; and
- the adequacy and merits of the proposed Operations Plan, and the Monitoring, Assurances and Reporting Plan (see §zz.7).

The panel shall comply with the review process outlined in the solicitation package provided to applicants described in §zz.3, and shall provide a written evaluation to the Commission explaining its conclusions.

If the review of an application requires expertise not represented on the Panel, the Panel may request that the Commission appoint an additional member, or allow it to consult outside experts. Outside experts shall also be subject to the disclosure and restrictions in §zz.3.a.2.

- 1) The panel may request additional information from an applicant if the project appears potentially eligible but additional information is needed to evaluate the merits of the project.
- 2) Once an application package is complete (including any additional information requested by the Panel), the Panel shall provide a written evaluation and recommendation to the Commission.

b) Determination by the Commission

For each application, the Commission will:

- 1) Review the information provided in the application and the recommendations and analysis provided by the Panel.
- 2) Rank potential projects based on the expected return for public investment as measured by the magnitude of the public benefits provided.
- 3) Prepare draft findings and a recommendation for funding.
- 4) Hold a public hearing to receive comments on the draft findings and funding recommendation.
- 5) Provide its final findings and recommended funding for public benefits to the legislature.

Based on when applications are received and at its discretion, the Commission may hold the hearing under ___(b)(4) and submit recommendations for one or multiple applications at a time.

Note: Authority cited: §79740-79747.

§zz.5 Quantification of Public Benefits

Each application must contain a quantification of the public benefits for which funding is requested, including quantification of the physical change in each public benefit provided by the project. To comply with this section, each applicant must:

- 1) Define the proposed project life and the without-project condition, including the future status of the physical resources for which benefits will be claimed, related facilities and water supplies.
- 2) For each public benefit, quantify the physical change provided by the proposed project as compared to the without-project condition, and show the annual pattern of the benefit over the proposed project's planning horizon.
- 3) Identify any cost savings enabled by the proposed project, defined as the cost of other activities or projects that would be avoided or eliminated as a result of the proposed project.
- 4) Identify and describe feasible alternatives for providing each public benefit, and identify an alternative that provides the same package of public benefits.

- 5) Estimate the monetary benefit corresponding to each public benefit's physical change. If physical benefits cannot be monetized, provide justification why they cannot. A range of acceptable methods for estimating monetary benefits is provided in [reference here to the Guidelines and/or the Methods Report].
- 6) Use discounting procedures defined in [reference to Guidelines] to convert estimated benefits to a common point in time.
- 7) In order to calculate cost shares and benefit shares for compliance with Water Code §79746 and 79747, display project costs and nonpublic benefits provided in the feasibility using the same discounting procedures.
- 8) Provide documentation of information, assumptions, methods, calculations, and results.

§zz.6 Priorities and Relative Environmental Values

Applications shall demonstrate how the public benefits claimed and quantified for the project relate to priorities and relative environmental values provided by CDFW and the State Water Board.

a) Ecosystem Priorities

Priority ecosystem improvements identified by CDFW achieve one or more of the following (in no order of preference):

- Provide recovery for endangered and other at-risk species and native biotic communities;
- Rehabilitate natural processes;
- Maintain or enhance populations of selected species for sustainable commercial or recreational harvest;
- Protect or restore functional habitat types;
- Prevent or reduce negative impacts from non-native species; and
- Improve and/or maintain water and sediment quality conditions that support healthy ecosystems.

b) Water Quality Priorities

The State Water Board's highest priorities for funding of water quality benefits associated with water storage projects include projects that (in no order of preference):

- Improve water temperature conditions in water bodies on California's Clean Water Act (CWA) Section 303(d) list that are impaired for temperature;
- Improve dissolved oxygen conditions in water bodies on California's CWA 303(d) list that are impaired for dissolved oxygen;

- Mitigate or control mercury in water bodies on California's CWA 303(d) list that are impaired for mercury;
- Reduce salinity concentrations in water bodies on California's CWA 303(d) list that are impaired for sodium, total dissolved solids, chloride, or specific conductance/electrical conductivity;
- Result in Delta tributary stream flows that more closely mimic natural hydrograph patterns or other flow regimes that have been demonstrated to improve conditions for aquatic life;
- Create additional supply capacity south of the Delta, and offset/reduce the current or future water demand from the Delta and its tributaries; and
- Clean up or restore groundwater resources in high use basins.

c) **Relative Environmental Value**

Proposed projects may vary widely in the magnitude, mix, location, and timing of benefits. CDFW and State Water Board will assess each proposed project and determine the relative environmental value of its benefits. Relative environmental value will be assigned separately for ecosystem and water quality benefits. Greater relative value will be assigned if:

- The benefit addresses more than one of the priorities.
- The expected magnitude of the measurable benefit is greater: for example, larger increases in population numbers or habitat area for ecosystem benefit, or larger reduction in concentrations or reduction in the frequency of exceedance for water quality benefit.
- The uncertainty of achieving the benefit is lower: for example, the proposal's operational commitments provide greater assurance that the benefit can be achieved, or the ecosystem benefit provides a greater likelihood of species recovery or significant habitat enhancement, or the water quality benefit provides a greater likelihood of bringing the affected water body into compliance.
- The benefit will be implemented sooner.
- The benefit will be more likely to result in a long-term or permanent improvement.

Other characteristics specific to individual proposed projects may also be considered in the determination of relative environmental value. A more detailed list of priorities and additional guidance on relative environmental value is provided in [reference to full CDFW report on priorities here] and [reference to full State Water Board report on priorities here].

§zz.7 Monitoring and Management of Public Benefits

Applications shall demonstrate how the proposed project will be built and operated to provide the public benefits claimed. The applicant shall submit the following with its application:

- A detailed Operations Plan, describing how the proposed project will be operated to provide the public benefits under the anticipated range of hydrologic conditions. The plan shall also describe how operational decisions will be made if conditions fall outside the range of anticipated conditions. The Operations Plan must be consistent with the analysis used to quantify benefits.
- A Monitoring, Assurances and Reporting plan, including expected budget, shall be submitted with the application, identifying how operations will be monitored and verified, the physical benefits that will be measured, and the location and frequency of measurement. The applicant shall prepare a list of operational, monitoring, and reporting commitments. This list will be provided to state and federal regulatory and permitting agencies for inclusion, at each agency's discretion, as conditions of or articles in a permit or license. Any project funded under the Act shall prepare a report every year that includes, at a minimum, a comparison of actual operations to those described in the operations plan.

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