



# Association of California Water Agencies

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October 23, 2015

The Honorable Joseph Byrne, Chair  
California Water Commission  
1416 9<sup>th</sup> Street  
Sacramento, CA 95814

**Re: Association of California Water Agencies' Comments regarding California Water Commission Staff Working Draft Water Storage Investment Program Regulations dated October 6, 2015**

Dear Chair Byrne and Commission Members:

The Association of California Water Agencies (“ACWA”) appreciates the opportunity to comment on the California Water Commission (“CWC” or “Commission”) staff working draft Water Storage Investment Program regulations (“draft Regulations”) distributed to the Stakeholder Advisory Committee for that group’s final meeting on October 7, 2015. ACWA represents nearly 430 public water agencies that collectively supply approximately 90% of the water delivered for domestic, agricultural and industrial uses in California. ACWA was a member of the WSIP Stakeholder Advisory Committee, and we recognize and appreciate the substantial investments of time, effort and energy that the Commission and CWC staff have dedicated to the development of the draft Regulations.

ACWA actively participated in the development of Proposition 1 and advocated for the inclusion of Chapter 8’s \$2.7 billion to be allocated for the “public benefits associated with water storage projects that improve the operation of the state water system, are cost effective, and provide a net improvement in ecosystem and water quality conditions, in accordance with [Chapter 8].” (Water Code § 79750(b).) The following comments, as well as the suggested edits to the draft Regulations presented in Attachment A, are intended to help ensure that the WSIP Regulations are consistent with the intent of Chapter 8 by enabling the Commission to consider funding the public benefits of storage projects that are diverse in scale, location, type and function with the goal of improving the operation of the state water system and providing net improvements in ecosystem and water quality conditions.

**I. THE DRAFT REGULATIONS' PROVISIONS RELATED TO ENVIRONMENTAL MITIGATION MEASURES AND COMPLIANCE OBLIGATIONS SHOULD BE CONSISTENT WITH THE LANGUAGE AND INTENT OF CHAPTER 8**

ACWA is concerned that the provisions in the draft Regulations related to “mitigation requirements and or compliance obligations” have the potential to limit the Commission’s discretion to fund projects that provide the greatest magnitude of public benefits, as required under Chapter 8 of Proposition 1.<sup>1</sup> Water Code section 79753(b) provides that “Funds shall not be expended pursuant to this chapter for the costs of environmental mitigation measures or compliance obligations except for those associated with providing the public benefits as described in this section.” Consistent with the requirements of the statute, CWC staff previously presented the Commission and stakeholders with an interpretation of section 79753(b) that would “allow[] for the funding of such measures and obligations if they are related to providing any of the public benefits enumerated in Chapter 8, which included ecosystem improvements and water quality improvements.”<sup>2</sup> ACWA continues to support this interpretation of section 79753(b), as it is consistent with the plain language and intent of Proposition 1.

As detailed below, sections 6004(a)(iii) and (iv) of the draft Regulations introduce distinctions that are not consistent with the language of Chapter 8. They would limit the ability of the Commission to fund the public benefits of storage projects that improve the operation of the state water system and provide a net improvement in ecosystem and water quality conditions, as well as impose requirements on project applicants that may be impossible to satisfy. To address the issues identified below, ACWA encourages the Commission to incorporate the edits suggested in Attachment A.

***(a) Section 6004(a)(iii) would introduce temporal distinctions and limitations on the Commission’s discretion that are not consistent with the language of Proposition 1***

Section 6004(a) of the draft Regulations would require project applicants to “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.” As proposed, subsection (a)(iii) would then specify that:

If the applicant has existing mitigation requirements or compliance obligations at the time the application is filed, the requirements or obligations shall be included in the without-project future condition. The public benefits claimed must provide an improvement above the existing requirements or obligations for the identified resource.

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<sup>1</sup> Water Code § 79750(c).

<sup>2</sup> CWC Staff, Working Draft Paper: “Issue Working Session – Environmental Mitigation and Compliance Obligations” (Aug. 3, 2015), (“CWC Staff Recommendation”), at p. 1.

These draft provisions of Subsection (a)(iii) would introduce a temporal distinction between “existing” and other compliance obligations and mitigation measures as well as limitations on the Commission’s ability to fund the public benefits of storage projects that are inconsistent with Chapter 8. Unlike other sections of Proposition 1, Chapter 8 does not distinguish between “existing” and other compliance obligations or mitigation measures. Chapter 8 was clearly written to give the Commission the discretion to fund costs as long as they are associated with providing the five categories of public benefits.<sup>3</sup> As CWC staff has previously explained:

Unlike in Chapters 4 and 6, the language in Chapter 8 contains neither requirement that the improvement exceed the existing regulatory baseline, nor temporal references limiting funding to measures/obligations that come into existence after the date of funding. Rather it states a broad exception allowing for the funding of such measures and obligations if they are related to providing any of the public benefits enumerated in Chapter 8, which included ecosystem improvements and water quality improvements.<sup>4</sup>

Preserving the Section 79753(b) public benefit funding exception’s applicability to all public benefits is critical to ensuring that the Commission retains the discretion to be able to fund projects that can provide the greatest magnitude of public benefits. It is appropriate for the Commission to collect and consider information related to compliance obligations and mitigation measures when considering its ultimate funding allocation decisions. The Commission may then weigh and consider this potentially expansive category of commitments, responsibilities and requirements as it selects projects through a public process that “ranks potential projects based on the expected return for public investment as measured by the magnitude of the public benefits provided[.]”<sup>5</sup> The final WSIP Regulations, however, should not impose funding restrictions on the Commission that are inconsistent with the language and intent of Proposition 1.

In order to ensure that the Commission is able to exercise its discretion as contemplated by Proposition 1, the WSIP Regulations should not include a temporal distinction between “existing” and other compliance obligations and mitigation measures, nor should they include limitations on the Commission’s ability to fund the public benefits of storage projects by categorically requiring that the public benefits claimed by a project applicant must provide an improvement above existing requirements or obligations. These provisions of the draft Regulations would significantly restrict the Commission’s ability to fund public benefits that improve the operation of the state water system and provide net improvements in ecosystem and water quality conditions, particularly in dry years.

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<sup>3</sup> Water Code section 79753(b) provides that “Funds shall not be expended pursuant to this chapter for the costs of environmental mitigation measures or compliance obligations except for those associated with providing the public benefits as described in this section.” (Emphasis added.)

<sup>4</sup> CWC Staff Recommendation, at p. 1. (Emphasis added.)

<sup>5</sup> Water Code section 79750(c).

***(b) Section 6004(a)(iv) would impose requirements on project applicants which may not possible to satisfy***

As proposed, section 6004(a)(iv) of the draft Regulations would specify that:

The applicant shall determine if any relevant, existing third party (i.e., not the applicant) mitigation requirements or compliance obligations may affect the without-project future conditions. The without-project future conditions shall include these as existing conditions or future modifications. The applicant may include in its quantification of public benefits the identified physical changes created or caused by the proposed project that coincidentally contribute to meeting a third party's requirements or obligations.

As previously noted, compliance obligations and mitigation measures/requirements is a potentially expansive category of commitments, responsibilities and requirements. Requiring project applicants to determine whether any third party mitigation requirements or compliance obligations exist, are relevant, and may affect the without-project future conditions would create a requirement for project applicants that may not be possible to satisfy. In some cases, third party compliance obligations and mitigation measures /requirements will not be known to project applicants. In other cases, known third party compliance obligations and mitigation measures/requirements will not be sufficiently definite or defined to allow a project applicant to include them as meaningful "existing conditions or future modifications" when assessing "without-project future conditions," as is currently proposed to be required under section 6004(a)(iv) of the draft Regulations.

***(c) The draft Regulations should be revised to ensure consistency with the language and intent of Chapter 8***

In the August 2015 working draft paper titled "Issue Working Session – Environmental Mitigation and Compliance Obligations," CWC staff presented an approach to compliance obligations and mitigation measures that is consistent with the language of Chapter 8 and would preserve the ability of the Commission to fund the public benefits of storage projects that improve the operation of the state water system and provide a net improvement in ecosystem and water quality conditions. Specifically, the paper explained that:

WSIP staff recommend that project applicants use best available information to determine their without-and with-project conditions and future projections of those conditions. Where compliance obligations are currently not being met and there is no identified action (an action that is sufficiently detailed as to make inclusion in project modeling possible and an action that has a high likelihood of being implement[ed], i.e., authorized and funded) to meet the compliance obligation, project proponents have no choice but to use the existing, noncompliance condition as the without-project condition. If the project helps

achieve an existing compliance obligation and the improvement falls within one of the public benefit categories identified in the Water Code, the improvement caused by the project could be considered a public benefit and could be eligible for WSIP funding.<sup>6</sup>

ACWA supports the approach specified in this CWC staff recommendation and we encourage the Commission to incorporate the edits suggested in Attachment A.

**II. THE DRAFT REGULATIONS SHOULD CONTAIN CLEAR, TECHNICALLY FEASIBLE REQUIREMENTS FOR ALL APPLICANTS THAT ENABLE THE CWC TO MAKE INFORMED DECISIONS THAT ARE CONSISTENT WITH THE REQUIREMENTS OF PROPOSITION 1**

ACWA recognizes the substantial effort that has been dedicated to ensuring that the draft Regulations provide an efficient and effective framework for the Commission's activities under the WSIP that is consistent with the requirements of Proposition 1. ACWA has a number of suggested edits consistent with this objective which are outlined below and are detailed in the redline-strikeout comments in Attachment A.

ACWA's suggested edits to section 6002 ("General Solicitation Process") are intended ensure that the Commission is presented complete information when considering project applications by clarifying that the agency "Technical Review" group (section 6002(c)(4)), the "Independent Peer Review" group (section 6002(c)(5)) and project applicants have an opportunity to engage throughout the application review process. By enabling these groups to communicate during the review process, points of dispute may be identified, clarified and potentially resolved in advance of applications' presentations to the Commission, providing the Commission with more complete information as they consider potential allocations for each project. Separately, ACWA's suggested edits to section 6003 ("Funding Commitments") are intended to clarify the proposed requirements of the draft Regulations and reflect consistency with the language of Chapter 8. For example, as detailed in Attachment A, the WSIP regulations at section 6003(d) should preserve the Commission's statutory authority under Water Code section 79755(c) to fund the completion of both environmental documentation and permitting of a project. This change would provide potential benefits for a wide variety of projects by minimizing administrative delays and additional costs that could otherwise result given the project financing requirements of section 6003(b).

Finally, there are a number of areas in section 6004 ("Quantification of Benefits") where additional clarification and careful edits can reduce the costs and burden associated with preparing and submitting an application for project applicants without deviating from the requirements of Proposition 1. Compliance with certain requirements of section 6004 would be difficult and costly for all applicants, and potentially impossible for smaller projects applicants.

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<sup>6</sup> CWC Staff Recommendation, at p. 2.

For example, the requirements related to the calculation of public benefits in section 6004(a)(4)(vi) (requiring three additional monetization methods for each category of public benefits) needs further clarification for project applicants to be able to meaningfully assess the cost and effort required to comply with these requirements. As written, however, compliance with this requirement would represent a significant burden for all project applicants. Additionally, the climate change sensitivity analyses under section 6004(a)(8)(i) would require use of the “best available science,” yet applicants would be required to utilize the included technical specifications which are linked to current climate change projections. It is appropriate to require applicants to describe potential changes in public benefits under various uncertain future conditions, including a changing climate, but these requirements should be sufficiently flexible to allow the applicants’ descriptions to account for the changing state of the best available science for their specific project. ACWA encourages the Commission to lower or remove the potential barriers that these technical requirements pose for all projects to ensure that the Commission will be able to consider funding the public benefits of a broad set of projects that are diverse in scale, location, type and function.

ACWA appreciates the substantial ongoing efforts of the Commissioners and CWC staff related to the WSIP, and we stand ready to continue to work with the Commission as it moves forward with the continued development of the draft Regulations. ACWA and potential project applicants would welcome additional opportunities to assist the Commission and CWC staff on any issues related to the implementation of the WSIP to help ensure that the Program continues to move forward in a timely manner. If you have any questions regarding this matter, please contact me at AdamR@ACWA.com or (916) 441-4545.

Sincerely,



Adam Walukiewicz Robin  
Regulatory Advocate

cc: The Honorable Joe Del Bosque, Vice-Chair; The Honorable Andrew Ball, Commissioner; The Honorable Daniel Curtin, Commissioner; The Honorable Paula Daniels, Commissioner; The Honorable Maria Herrera, Commissioner; The Honorable David Orth, Commissioner; The Honorable Armando Quintero, Commissioner; Ms. Paula Landis, Executive Officer; Ms. Rachel Ballanti, Assistant Executive Officer; Ms. Jennifer Marr, Supervising Engineer

Attachments: A. Redline-strikeout version of CWC staff working draft Water Storage Investment Program regulations dated October 6, 2015.

**Attachment A: Redline-Strikeout Comments  
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CALIFORNIA CODE OF REGULATIONS  
TITLE 23. WATERS.  
DIVISION 7. CALIFORNIA WATER COMMISSION  
CHAPTER 1 WATER STORAGE INVESTMENT PROGRAM

Article 1 Definitions

Section 6000. Definitions

As used in this Chapter, the terms below shall have the meanings noted:

- (a) "Adaptive management" means a framework and flexible decision-making process for ongoing knowledge acquisition, monitoring, and evaluation leading to continuous improvements in management planning and implementation of a project to achieve specified objectives.
- (b) "Applicant" means the entity(ies) that formally submits a grant application. This would be the same entity(ies) that would enter into an agreement with the Commission should the project be funded.
- (c) "Application" means the submission to the Commission that requests Program funding for a proposed project.
- (d) "Attraction flow" means water with appropriate chemistry, velocity, quantity, and location to attract fish migrating upstream.
- (e) "Avoided cost" means the reduction in a without-project future condition cost that would occur as a result of a proposed project.
- (f) "Beneficial uses of the Delta" means the beneficial uses identified in the "Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary" issued by the State Water Resources Control Board (December 2006).
- (g) "Beneficiary(ies)" means a person, organization, or group of persons or organizations that receives benefits from a project.
- (h) "Best available science" means the use of the high-value information and data, specific to the decision being made and the time frame available for making that decision, to assist management and policy decisions.
- (i) "CALFED" means CALFED Bay-Delta Program developed by a consortium of state and federal agencies with management and regulatory responsibilities in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary through the CALFED Bay-Delta Program, which by means of the final programmatic environmental impact statement/environmental impact report, identified the preferred programs, actions, projects, and related activities that would provide solutions to the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ecosystem, including but not limited to the Bay-Delta and its tributary watersheds.

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- (j) "CALFED surface storage projects" means Los Vaqueros Reservoir Expansion, In-Delta Storage Project, Sites Reservoir, and Temperance Flat Reservoir.
- (k) "Capital cost" 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:
  - (1) Major maintenance, reconstruction, demolition for purposes of reconstruction of facilities, and retrofitting work that is ordinarily done no more often than once every 5 to 15 years
  - (2) Expenditures that continue or enhance the useful life of the physical property
  - (3) Equipment with an expected useful life of two years or more
  - (4) Costs incidentally but directly related to construction or acquisition, including, but not limited to, planning, engineering, construction management, architectural, and other design work, environmental impact reports and assessments, required mitigation expenses, appraisals, legal expenses, site acquisitions, and necessary easements.
- (l) "CEQA" means the California Environmental Quality Act (Public Resources Code Section 21000 et seq.)
- (m) "Certainty of improvement" means the degree of confidence that the proposed improvement will be achieved or result in the intended outcome.
- (n) "Commission" means the California Water Commission.
- (o) "Commitment" means an agreement or pledge to assume a financial obligation at a future date. Commitments may be in the form of adopted resolutions, letters, contracts, or signed statements by an authorized representative.
- (p) "Complete application" means an application that consists of all of the required information and supporting documentation, which is submitted prior to the close of a solicitation period.
- (q) "Conjunctive use project" means the coordinated and planned management of existing surface water reservoirs and groundwater resources in order to maximize the efficient use of both resources. Conjunctive use projects may include development of new operational agreements and construction of appurtenant infrastructure. To be considered for a maximum project cost share exception, per Water Code Section 79756(a), these projects shall utilize existing facilities and resources to the maximum extent practicable.
- (r) "Constant dollar year" means the year to which all dollar values are adjusted for inflation so the values can be compared.
- (s) "Cost-effectiveness" means a demonstration that a proposed project's Program cost share is the least-cost feasible means of providing the same or more amounts of the public benefits.
- (t) "Cost allocation" means the process for assigning costs to beneficiaries.
- (u) "CWA 303(d) List" means the list developed by the State Water Resources Control Board and approved by the U. S. Environmental Protection Agency, pursuant to Section 303(d) of the Clean Water Act that requires the identification of waterbodies that do not meet, or are not expected to meet, water quality standards (i.e., impaired waterbodies).
- (v) "Days" means calendar days.

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- (w) "Delta" means the Sacramento-San Joaquin Delta as defined in Water Code Section 12220 and the Suisun Marsh as defined in Public Resources Code Section 29101.
- (x) "Delta outflow" means the Net Delta Outflow Index as identified in the State Water Resources Control Board's "Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary", December 2006.
- (y) "Department" means the Department of Water Resources.
- (z) "Disadvantaged communities" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.
- (aa) "Discount rate" means the real (i.e., the rate without inflation) interest rate used to adjust constant dollar benefits received or costs incurred during the planning horizon to dollars at a common point in time.
- (bb) "Duration of improvement" means the length of time an improvement is expected to exist.
- (cc) "Ecosystem improvements" means a public benefit that protects, restores, or enhances ecosystems, and contributes to the restoration of aquatic ecosystems and native fish and wildlife. Ecosystems include both aquatic and terrestrial habitats and natural communities. Per Water Code Section 79753(a)(1), ecosystem improvements may include changing the timing of water diversions, improvement in flow conditions, temperature, or other benefits that contribute to the restoration of aquatic ecosystems and native fish and wildlife, including those ecosystems and fish and wildlife in the Delta.
- (dd) "Encumbered" means the collective internal accounting and bond accountability actions initiated by Staff to assign specific amounts of authorized general obligation bond funding to a specific funding recipient through a binding agreement.
- (ee) "Environmental documentation" means documentation required for compliance with CEQA as defined in California Code of Regulations, Title 14, Section 15361.
- (ff) "Emergency response" means a public benefit that provides an amount of water storage or supply dedicated to emergency response purposes that are outside of normal facility operations or average water supply for all other purposes (i.e., water supply is reduced for the expected (average) amount of water used for emergency purposes). For the purposes of this Program, emergency response water (i.e., water from dedicated emergency storage) supplied to customers for human health and safety purposes during declared emergencies will be considered a public benefit under this category. Per Water Code Section 79753(a)(4), emergency response includes, but is not limited to, securing emergency water supplies and flows for dilution and salinity repulsion following a natural disaster or act of terrorism.
- (gg) "Entrainment" means fish being transported along with the flow of water into unnatural or harmful environments.
- (hh) "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.
- (ii) "Flood control benefit" means a public benefit that reduces or prevents the extent or magnitude of the expected detrimental effects of flooding as a result of new, expanded, or reoperated storage projects. Per Water Code Section 79753(a)(3), flood control benefits

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- include, but are 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.
- (jj) "Functional flows" means flow conditions that retain specific process-based components of natural hydrograph for the streams and rivers. Some key functional components include wet-season initiation flows, peak magnitude flows, recession flows, dry-season low flows, and inter-annual variability that occur with proper magnitude, at proper timing, and for proper duration.
  - (kk) "Groundwater contamination prevention project" means a project that provides water storage benefits and prevents groundwater contamination by eliminating or reducing sources of contamination; prevents seawater intrusion through the use of seawater or hydraulic barriers; prevents the migration of contaminants into down gradient groundwater basins or aquifers; or otherwise prevents groundwater contaminate plumes from expanding or spreading.
  - (ll) "Groundwater dependent ecosystem" means communities of plants and animals dependent on groundwater emerging from aquifers and water tables.
  - (mm) "Groundwater remediation project" means a project that provides water storage benefits and removes or reduces constituents resulting from a discharge or release of waste that has degraded groundwater quality or impaired beneficial uses, or projects that restore groundwater basin storage or storage capacity by reducing constituent concentrations below levels that impair beneficial uses of the groundwater.
  - (nn) "Groundwater storage project" means engineered projects that capture, infiltrate, inject or recharge water supplies, including but not limited to floodwaters, stormwater, contract water, and recycled water, into a groundwater basin for later use and/or to avoid or address undesirable groundwater results such as chronic lowering of groundwater levels, reduction of groundwater storage, land subsidence, depletion of interconnected surface water, and water quality degradation.
  - (oo) "Hydrologic record for analysis" means a period of historical years chosen for the analysis that has continuous hydrologic information such as precipitation, inflows, storage, flows, water diversions, and/or water consumption available.
  - (pp) "Immediacy of improvement action" means how quickly, expressed as the expected time, an improvement action will be completed.
  - (qq) "Internal rate of return" means the discount rate at which the present value of a public benefit's monetized benefit is equal to the present value of the state's cost share requested for that public benefit.
  - (rr) "Local and regional surface storage project" means a project that stores water above ground in a natural or artificial impoundment that improves the operation of water systems in the state and provides public benefits. Local and regional surface storage projects provide water deliveries within a more limited geographic area when compared to components of the State Water Project or Central Valley Project. Such projects primarily

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- address increasing local or regional self-reliance, improving the operations of the local or regional water system(s), or improving integrated regional water management.
- (ss) “Magnitude of improvement” means the quantity and scale of the improvement, expressed in the appropriate unit.
- (tt) “Measurable improvements” means changes in physical, chemical, or biological conditions that provide ecosystem benefits and can be quantified at a specific location and time.
- (uu) “Mutual water company” means a private corporation or association organized for the purposes of delivering water to its stockholders and members at cost, including use of works for conserving, treating, and reclaiming water.
- (vv) “Net improvement” means the gain or enhancement of a resource condition determined by comparing the with- and without-project future conditions less any negative outcomes of a proposed project.
- (ww) “Non-natal tributary” means any waterway that is not the stream or river where an anadromous fish was born.
- (xx) “Nonprofit organization” means an organization qualified to do business in California and is qualified under Section 501(c)(3) of Title 26 of the United States Code.
- (yy) “Non-public benefit” means benefits provided by a project other than the public benefits identified in Water Code Section 79753(a)(1-5).
- (zz) “Operations” means any decision or action, purposeful or incidental, to control or regulate the free flow of water by diverting to, impounding in, or releasing from a surface or groundwater storage or other facility(ies).
- (aaa) “Permits” means any federal, state, or local approval, certification, or agreement required to construct, implement, or operate a proposed project.
- (bbb) “Physical benefit” means a desired improvement in a good or service that is provided by a proposed project, measured in a physical, non-monetary unit such as acre-feet of water or numbers of fish.
- (ccc) “Physical change” means expected change in: surface water and groundwater operations; Delta and riverine conditions; surface water and groundwater quality; aquatic and terrestrial biological resources; energy resources; recreation resources; or other resources affected by the change in diversion, storage or flow of water created or caused by a proposed project.
- (ddd) “Planning horizon” means the future time period over which project costs will be paid and benefits received, normally based on the expected project life plus the construction period.
- (eee) “Pre-application” means the first step in a two-step application process.
- (fff) “Present value” means the monetary value of future costs or future benefits of a proposed project, converted to a common point in time using the discount rate. As used in this Chapter, present values of costs or benefits of a project are expressed at the start of a proposed project’s operation, unless otherwise specified.
- (ggg) “Program” means the Water Storage Investment Program.
- (hhh) “Project life” means the expected period in which a project physically performs its intended function.

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- (iii) "Public agency" means a state agency or department, special district, joint powers authority, city, county, city and county, or other political subdivision of the state.
- (jjj) "Public benefit" means ecosystem improvements, water quality improvements, flood control benefits, emergency response, and recreation associated with water storage projects.
- (kkk) "Public trust resources", as related to Water Code Section 79753(a)(2), means fishery protection, fish and wildlife conservation, preservation of waterways in their natural state, and recreation. Water quality improvements in the Delta, or in other river systems, that provide these public trust resources are public benefits.
- (lll) "Public utility" means every common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, and heat corporation, where the service is performed for, or the commodity is delivered to, the public or any portion thereof (Public Utility Code Section 216).
- (mmm) "Ramping rate" means a progressive change in the discharge of water to a stream or river channel, measured as flow per unit time.
- (nnn) "Realization of benefit" means how quickly, expressed as the expected time, that an improvement will achieve measurable outcomes.
- (ooo) "Recreational purpose" means a public benefit that provides recreation activities typically associated with water bodies (such as rivers, streams, lakes, wetlands, and the ocean) and wildlife refuges that are accessible to the public. Recreational benefits must be directly affected by the proposed project and be open to the public, and may provide interpretive, educational, or intrinsic value.
- (ppp) "Reservoir reoperation project" means a project that involves the modification of the operations of an existing surface storage reservoir to achieve public benefits. A reservoir reoperation project may include construction of appurtenant infrastructures such as spillways, radial gates, tunnels, or conveyance facilities necessary for the improved operation of the existing reservoir. Such projects must result in long-term operational changes that provide public benefits, and operational changes must be documented in a facility's final operations document or operating permits.
- (qqq) "Resilience to the effects of climate change" means the flexibility a project will have through operations or other means to adapt to climate change, in order to maintain the project improvements.
- (rrr) "Return on investment" means the present value of benefits received minus the present value of costs paid over the planning horizon, all divided by the present value of costs paid and expressed as a percentage.
- (sss) "Spatial distribution" means the geographical arrangement of a habitat, phenomenon, or species in a given area.
- (ttt) "Spatial resolution" means the minimum length, area, or volume of an affected physical resource necessary to demonstrate and describe benefits or impacts.
- (uuu) "Spatial scale" means the geographical dimensions of an improvement.

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- (vvv) “Staff” means the employees of the Commission, other state agencies, and contractors designated by the Commission to assist in preparation and review of applications and administration of the Program.
- (www) “State water system” means all of the state’s water systems collectively, including local, regional, state, and federal systems that provide water resources benefits within California.
- (xxx) “Straying” means an anadromous fish migrating into a non-natal waterway.
- (yyy) “Temporal distribution” means the time of year or season in which an ecosystem improvement will occur.
- (zzz) “Temporal scale” means the scheduled time in the calendar year during which an improvement action will be implemented
- (aaaa) “Threshold” means, in the context of adaptive management, a numerical value for a specific metric that is a boundary between acceptable and unacceptable situations or conditions, or a specific metric that must be exceeded for a certain reaction, result, or condition to occur.
- (bbbb) “Tributaries to the Delta” means all river systems that make up the Sacramento River watershed and the San Joaquin River watershed (i.e., the topographic hydrologic basins). Tributaries to the Delta include areas upstream of dams or other impoundments. Tributaries to the Delta do not include the Trinity River watershed or the Tulare Lake Basin.
- (cccc) “Trigger” means, in the context of adaptive management, an event, situation, or measurement that initiates or requires a management action.
- (dddd) “Undesirable groundwater result” means one or more of the following effects caused by groundwater conditions occurring throughout the basin:
- (1) Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon.  
Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.
  - (2) Significant and unreasonable reduction of groundwater storage.
  - (3) Significant and unreasonable seawater intrusion.
  - (4) Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
  - (5) Significant and unreasonable land subsidence that substantially interferes with surface land uses.
  - (6) Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.
- (eeee) “Water quality improvements” means a public benefit that includes water quality improvements that provide significant public trust resources in the Delta or in other river systems, or water quality improvements that clean up or restore groundwater resources, per Water Code Section 79753(a)(2).

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- (ffff) “Willingness to pay” means a monetary measure of what Californians would be willing to give up for a quantity of a good or service if there was no alternative means of obtaining that same quantity.
- (gggg) “Without-project future conditions” means a generally accepted quantitative and qualitative description of the infrastructure, population, land use, water use, water operations, and other factors, considering operating plans, laws, and regulations that are assumed at a particular year in the planning horizon without a proposed project.
- (hhhh) “With-project future conditions” means a quantitative and qualitative description of the conditions with a proposed project; it is based on the without-project future conditions and includes additions or modifications specific to the proposed project’s description and operations plan.

NOTE: Authority cited: Water Code Section 79706, 79754

Reference: Water Code Section 79712, 79750(b), 79750(c), 79751(a-d), 79752, 79753(a)(1-5), 79755(a)(2-3), 79755(a)(5)(B), 79755(a)(5)(C), 79756(a), 79757(a)(3)

Article 2. Guidelines

Section 6001. General Provisions

(a) Confidentiality

- (1) Information submitted to the Commission pursuant to this chapter is available to the public. Any privacy rights, as well as other confidential protections afforded by law with respect to the content of pre-application and full application, are waived by the applicant. Applicants or Funding Recipients may request an exemption to this confidentiality waiver for specific documents or submittals, such as documents that may pose security concerns. The Executive Officer of the Commission will consider such requests for waiver on a case by case basis.

(b) Eligibility

- (1) Eligible applicants consist of the following:
  - i. Public agencies
  - ii. Nonprofit organizations
  - iii. Public utilities
  - iv. Federally-recognized Indian tribes
  - v. State Indian tribes listed on the Native American Heritage Commission’s California Tribal Consultation List
  - vi. Mutual water companies
  - vii. For CALFED surface storage projects, local joint powers authorities, per Water Code Section 79759(a)-(c)
- (2) Eligible project types include:
  - i. CALFED surface storage projects
  - ii. Groundwater storage projects

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- iii. Groundwater contamination prevention or remediation projects that provide water storage benefits
- iv. Conjunctive use projects
- v. Reservoir reoperation projects
- vi. Local surface storage projects that improve the operation of water systems in the state
- vii. Regional surface storage projects that improve the operation of water systems in the state

NOTE: Authority cited: Water Code Section 79706

Reference: Water Code Section 79712, 79757

**Section 6002. General Selection Process**

- (a) The Commission shall use a two-step application process. Each step shall have a distinct solicitation period. The first step, the pre-application, contains basic applicant and project information. Applicants may consider the Commission's assessment and public comments received by the Commission, as well as information posted on other projects, before proceeding to the second step, preparation of a full application. The second step, the full application, contains detailed technical information and a presentation and analysis of proposed project benefits that is submitted for funding decisions.
- (b) Pre-application
  - (1) Applicants shall complete and submit a pre-application, using the Department's on-line application submittal tool, prior to the close of the pre-application solicitation period. Staff shall post all pre-applications received on the Commission's website within 14 days of the close of the solicitation period.
  - (2) The pre-application shall contain:
    - i. Documentation demonstrating eligibility
    - ii. Amount of Program funds being requested, total capital cost, and estimated total project cost
    - iii. Contact information
    - iv. Proposed project name, location, water source, and description
    - v. Summary of the estimated magnitude of physical public benefits over the project planning horizon
    - vi. Summary of local, regional, and/or state water supply reliability or operational improvements
    - vii. Potential beneficiaries, distinguishing public versus non-public benefits
    - viii. Approximate location, description, and magnitude of measurable improvements to the Delta ecosystem or to the tributaries to the Delta
    - ix. Description of proposed facilities and operations of such facilities
    - x. Summary of how the proposed project integrates with existing projects or could integrate with other projects to increase benefits

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- xi. Statement that the applicant acknowledges that the pre-application is the initial step in the selection process and does not guarantee project funding, and that a full application is necessary to fully establish eligibility and provide information necessary for funding decisions by the Commission
  - (3) Staff shall review all complete pre-applications, submitted prior to the close of the relevant solicitation period, and assess the information to determine whether each proposed project will likely meet the eligibility requirements.
  - (4) Staff shall provide preliminary assessments of the pre-applications to the Commission, at a regularly scheduled Commission meeting, and post the preliminary assessments on the Commission's website, which will be made available to the public.
  - (5) The Commission shall consider Staff's assessments and public comments and make final pre-application assessments. The assessments shall either state that the pre-application information appears to meet the Program provisions for eligibility and measurable improvements to the Delta or to the tributaries to the Delta, or provide recommendations to address deficiencies or strengthen applications, including eligibility issues. The final assessments shall be posted on the Commission's website.
- (c) Full Application
- (1) Applicants shall complete and submit a full application, using the Department's on-line application submittal tool, prior to the close of the full application solicitation. Staff shall post all applications received on the Commission's website within 30 days of the close of the solicitation period, with the exception of potentially confidential documents subject to the process described in subsection 6001(a)(1).
  - (2) A complete application shall contain at least the following information:
    - i. Documentation demonstrating eligibility
    - ii. Contact information
    - iii. Amount of Program funding requested, total capital cost, and estimated total project cost
    - iv. Project name, location, water source, and project description
    - v. Documentation that demonstrates the project's engineering, environmental, economic, and financial feasibility, including completed feasibility studies that have been reviewed, approved, and signed by a California licensed Professional Engineer who is involved in the planning and design of the proposed project.
    - vi. Documentation and analyses that support, substantiate, and quantify the claimed physical benefits and measurable improvements to the Delta or to the tributaries to the Delta, including rationale for methodologies and datasets used
    - vii. Benefit and cost analysis
    - viii. Cost allocation
    - ix. Most recent publicly-available environmental documentation
    - x. A listing of all local, state, and federal permits, certifications, and other approvals necessary for construction and operation, along with a description of the status of and time to obtain each permit, certification, and other approval

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- xi. A discussion of how the applicant will ensure that the proposed project will comply with and be consistent with all applicable laws and regulations
  - xii. Documentation that demonstrates advancement of the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta
  - xiii. Summary of local, regional, and/or state water supply reliability or operational improvements
  - xiv. Summary of how the project integrates with existing projects or could integrate with other projects to increase benefits
  - xv. Beneficiaries, distinguishing public versus non-public benefit
  - xvi. Estimated project schedule that presents the anticipated timeline until the initial year of project operation
  - xvii. Preliminary monitoring, assurances, and reporting plan, as described in Section 6007
  - xviii. A description of how the proposed project's benefits address the Program ecosystem and water quality priorities.
  - xix. Documentation that demonstrates managerial, technical, and financial capacity of the applicant
  - xx. Other items deemed necessary by the Commission
- (3) Eligibility and Completeness Review
- i. Staff shall review each application for eligibility and completeness.
  - ii. If any eligibility or completeness deficiencies are identified, Staff shall notify the applicant and provide a listing of the identified deficiencies.
  - iii. The applicant shall be provided a 14-day period to submit the requested information to Staff. If an applicant does not furnish the requested information within the 14-day period, then the Commission may disqualify the application from funding consideration.
  - iv. Each complete application shall be reviewed for eligibility in accordance with subsections 1-6 below:
    - 1. Documentation that demonstrates the applicant is eligible, as listed in Section 6001(b)(1).
    - 2. Documentation that demonstrates the project meets all of the following criteria:
      - a. Is an eligible project type listed in Section 6001(b)(2);
      - b. Does not adversely affect any river afforded protection in the California Wild and Scenic Rivers Act or the Federal Wild and Scenic Rivers Act as required in Water Code Section 79711(e); and
      - c. Provides measurable improvements to the Delta ecosystem or to the tributaries to the Delta.
    - 3. Submittal of the most recent publicly-available version of the proposed project's environmental documentation.

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4. Commitments from duly authorized representatives of non-public benefit cost-share partners providing not less than 75 percent of the non-public benefit cost-share.
5. Where an urban water supplier (as defined in Water Code Section 10617) or agricultural water supplier (as defined in Water Code Section 10608.12) is the applicant, documentation verifying the urban or agricultural water supplier is in compliance with the requirements of Water Code Section 10608.56.
6. For a proposed project that directly affects groundwater levels or quality, the applicant shall demonstrate the following, as applicable:
  - a. For projects located in CASGEM medium and high priority groundwater basins, both of the following:
    - (i) The applicant has prepared and implemented, participates in, or consents to be subject to an existing groundwater management plan or other plan that meets the requirements of Water Code Section 10753.7.
    - (ii) Current status of basin efforts to comply with regulations adopted by the Department pursuant to Water Code Section 10733.2, effective as of the application submittal date, including but not limited to status of formation of a groundwater sustainability agency and progress toward a groundwater sustainability plan.
  - b. For projects located in a low or very low priority groundwater water basins, the following:
    - (i) The applicant has prepared and implemented, participates in, or consents to be subject to an existing groundwater management plan or other plan that meets the requirements of Water Code Section 10753.7.
    - (ii) If compliance with subsection i is not possible, and the applicant is a local agency as defined in Water Code Section 10752, commitment that the applicant will develop a groundwater management plan that meets the requirements of Water Code Section 10753.7 within one (1) year of the full application submittal date.
  - c. Conformance with the applicable requirements of a water rights adjudication in the subject groundwater basin(s), per Water Code Section 10753.7(b)(1)(C).

(4) Technical Review

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- i. Applications that are deemed complete and eligible by the review outlined in Section 6002(c)(3) of these regulations shall be evaluated for the following items during the technical review:
  - 1. Magnitude of the quantified public benefits, as described in Section 6004
  - 2. Cost and cost share
  - 3. Return on investment
  - 4. Cost-effectiveness
  - 5. Improvements to the operation of the state water system
  - 6. Project's engineering, environmental, economic, and financial feasibility
  - 7. Priorities and relative environmental values for ecosystem and water quality improvements
  - 8. Monitoring and management of public benefits
  - 9. Project integration
  - 10. Quality of the analyses and documentation
  - 11. Technical, managerial, financial capacity
  - 12. Other items deemed necessary by the Commission
- ii. Staff shall work with qualified technical reviewers from the Department, State Water Resources Control Board, California Department of Fish and Wildlife, and other technical resources that Staff determines are needed.
- iii. The technical reviewers shall evaluate the accuracy of the quantification of public benefits. For ecosystem improvement benefits and water quality improvement benefits, the technical reviewers, with the California Department of Fish and Wildlife and State Water Resources Control Board, shall also evaluate the benefits as they relate to the ecosystem and water quality priorities and relative environmental values.
- iv. The technical reviewers shall determine whether the application contents are sufficient to conduct the necessary review, whether additional or clarifying information is necessary, or whether there are errors in the quantification of public benefits or cost allocation.
- v. If such additional or clarifying information is necessary, or quantification errors have occurred, Staff shall notify the applicant and provide a listing of the needed information, clarifications, and/or errors. The applicant shall be provided a time period to respond not to exceed 60 days. If requested information is not provided within the specified time period, the applications shall be evaluated as originally submitted; with the identified deficiencies being taken into consideration during the technical reviews, independent peer reviews, and by the Commission.

~~v.~~vi. Upon completion, the technical reviews shall be made available to the applicant.

(5) Independent Peer Review

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- i. Staff shall work with independent peer reviewers consisting of technical experts that are not associated with the technical reviewers, applicant, or project beneficiaries. The independent peer reviewers shall, at a minimum, consider the conclusions of the technical reviews and document whether they agree with the conclusions and provide comments as warranted.
  - ii. The independent peer reviewers may contact the technical reviewers and applicant should they have any clarifying questions before completing their evaluation.
  - iii. In an effort to ensure that peer reviewers are free from bias, Staff shall evaluate potential reviewers for conflicts of interest such as those proscribed under Government Code Section 1090. If a peer reviewer, or a member of his or her immediate family, has a financial relationship with an applicant or other entity that stands to benefit from the application process or grant award, the reviewer shall disclose such interest to Staff and shall be recused from reviewing any applications with which there is a conflict of interest.
- (6) Commission Initial Funding Decision Process
- i. After all technical reviews and independent peer reviews are finished, Staff shall provide to the Commission all technical reviews and independent peer reviews resulting from the application process for the Commission's deliberation at a regularly scheduled Commission meeting. Technical reviews and independent peer reviews shall be posted on the Commission's website no less than 30 days before the relevant Commission meeting.
  - ii. Prior to making an initial funding decision, the Commission shall determine the following:
    - 1. The project is cost-effective.
    - 2. The project improves the operations of the state water system.
    - 3. The project provides a net improvement in ecosystem and water quality conditions.
    - 4. The return on the Program's investment for each project and the ranking of projects based on the return on investment.
    - 5. The Program cost share is less than or equal to 50 percent of the proposed project's total capital costs, with the exception of conjunctive use and reservoir reoperation projects per Water Code Section 79756(a).
    - 6. The Program-funded ecosystem improvements benefits make up at least 50 percent of the total public benefits funded by the Program.
    - 7. The project is feasible.
    - 8. The project will advance the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta.
    - ~~8-9.~~ The project provides measurable improvements to the Delta ecosystem or to the tributaries to the Delta.

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~~9-10.~~ The project is consistent with all applicable laws and regulations.

iii. The Commission shall make initial funding decisions based on the technical reviews, independent peer reviews, and public input provided to the Commission.

1. The Commission shall ~~only fund the costs of environmental mitigation measures or compliance obligations that are associated with providing the public benefits~~ not fund the costs of environmental mitigation measures or compliance obligations except for those associated with providing the public benefits as defined in section 6000(jjj). (Water Code Section 79753(b)).

(7) Applicants and the public shall have at least 21 days to respond to the Commission's initial funding decisions.

(8) The Commission shall consider public comments and will finalize the funding decisions at a regularly scheduled Commission meeting.

NOTE: Authority cited: Water Code Section 79706, 79750, 79712

Reference: Water Code Section 79751, 79757, 79755(a), 79755(c), 79706

#### Section 6003. Funding Commitments

(a) Conditional Funding Commitment

(1) The Commission shall adopt a resolution documenting any conditional funding commitments and may impose additional requirements as deemed necessary.

(2) The Commission's conditional funding commitments may be adjusted based on the magnitude of public benefits as projects are finalized. Any such adjustment shall be reflected in the Commission's final funding commitment per Section 6003(e).

(3) Staff shall send a letter to each funding recipient authorized to receive funds reflecting the Commission's conditional funding commitment and requesting any information needed to progress from the conditional funding commitment to the execution of the funding agreement. This may include:

i. Funding recipient's audited financial statements

ii. Items stated in Section 6003(b)

iii. Additional information, as applicable, on the status of environmental documentation, urban water management plans, agricultural water management plans, groundwater management plans, or groundwater sustainability plans

iv. Final project costs, schedule, and scope of work

v. Reporting interval for status of Section 6003(b) items

(b) The time necessary for a project to meet all of the provisions specified in this subsection will vary. The Commission will not encumber funds and funds will not be made available to a funding

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recipient, until such time as these provisions have been satisfied, the Commission holds a public meeting allowing for public review and comment on the information required by this subdivision, and the Commission determines that all required provisions have been met. Specifically, each funding recipient shall demonstrate that the following items from Water Code Section 79755(a) have been completed:

- (1) The project applicant has entered into a contract with each party that will derive benefits, other than public benefits
  - (2) The project applicant has entered into a contract with each public agency that administers public benefits of the project
  - (3) ~~Feasibility studies have been completed~~ The applicant has submitted a complete feasibility study.
  - (4) Environmental documentation associated with the project has been completed
  - (5) All required permits have been secured
- (c) The funding recipient shall submit to the Commission routine progress reports, at an interval to be specified by the Commission, but not less frequently than annually, that document the progress that the funding recipient is making towards complying with the items contained in this section, including any changes in public benefit magnitude that could affect cost allocation.
- (d) Funding for Permits and Environmental Documentation. Notwithstanding subsection (b), the Commission may provide funding for a project to complete the necessary permits and environmental documentation, per Water Code Section 79755(c), once the conditional funding commitment is made. The decision to provide such permit funding is at the discretion of the Commission and shall be considered part of the overall allocation of Program funds to a project. Such funding for permits shall, at a minimum, be subject to the following conditions:
- (1) Funds will not be disbursed until the funding recipient enters into a funding agreement with the Commission and has met all relevant disbursement conditions.
  - (2) Funding for permits is included in the conditional funding commitment.
  - (3) Funding for permits shall not exceed 10 percent of the conditional funding commitment.
- (e) Final Funding Commitment
- (1) Funding for a project remains contingent until a final operations plan and all items in Section 6003(b) are complete and have been submitted to the Commission. If the funding recipient does not make timely progress to complete these items, the Commission may make a determination of failure to make substantial progress towards completing these required documents and rescind the conditional commitment of funds.
  - (2) Funding recipients shall provide an updated quantification of benefits or sensitivity analysis if changes have occurred since the conditional funding commitment. Changes in quantification of benefits or sensitivity analysis may affect the Commission's final funding decision.
  - (3) When a funding recipient has complied with the requirements in Section 6003(e)(1) and (2), the Commission shall consider any changes that have occurred to the project since the conditional funding commitment and make a final funding commitment at a publicly noticed Commission meeting.

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- (4) Funds shall be encumbered for work associated with construction activities, including design, after all items in Section 6003(e)(3) are complete.
- (5) Funds will not be disbursed until the funding recipient enters into a funding agreement with the Commission and has met all relevant disbursement conditions.
- (6) The Commission shall not reimburse any costs incurred prior to November 4, 2014.

NOTE: Authority cited: Water Code Section 79706

Reference: Water Code Section 79706, 79755(a), 79712(b)

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Article 3. Quantification and Management of Benefits

Section 6004. Quantification of Benefits

- (a) The applicant shall quantify the public and non-public benefits provided by the proposed project. The applicant shall distinguish all public and non-public benefits in order to provide an accurate cost allocation and determination of allowable Program funding. The magnitude of benefits shall be calculated using the physical, chemical, and/or biological change in each benefit resource condition that is created by or caused by the proposed project. To comply with this section, the methods used by the applicant to quantify the benefits shall include the following:
- (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.
    - i. If the without-project future conditions are different than those shown in the applicant's CEQA No Project Alternative (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 any sensitivity analyses conducted.
    - ii. The applicant's analysis shall include any changes to watershed(s)/regions(s) that the proposed project may create or cause. If the project affects State Water Project and Central Valley Project operations, the analysis must include the watersheds where the affected State Water Project and Central Valley Project facilities are located.
    - ~~iii. If the applicant has existing mitigation requirements or compliance obligations at the time the application is filed, the requirements or obligations shall be included in the without-project future condition. The public benefits claimed must provide an improvement above the existing requirements or obligations for the identified resource.~~
    - ~~iv. The applicant shall determine if any relevant, existing third party (i.e., not the applicant) mitigation requirements or compliance obligations may affect the without-project future conditions. The without-project future conditions shall include these as existing conditions or future modifications. The applicant may include in its quantification of public benefits the identified physical changes created or caused by the proposed project that coincidentally contribute to meeting a third party's requirements or obligations.~~
  - ~~v.iii.~~ The without-project future conditions shall not include conditions that will be addressed through sensitivity analyses described in Section 6004(a)(8).
  - ~~vi.iv.~~ The applicant shall include information relevant to estimating benefits or costs associated with the proposed project. For projects with planning horizons that extend beyond years covered by existing planning and environmental

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documentation, reasonable assumptions or extrapolations may be used and explained.

- (2) Define the With-Project Future Conditions. The applicant shall define and assess future conditions with the project completed as proposed. The with-project future conditions shall be based on the without-project future conditions and include any and all additions or modifications specific to the proposed project.
- (3) Calculating Physical Benefits. The applicant shall quantify the physical benefits that would be provided by the proposed project by calculating the physical changes between the with-project future conditions and without-project future conditions. The calculation of physical benefits should consider any effects on physical public benefits, including any non-mitigable impacts.
  - i. The applicant shall:
    1. Use long-term sequential hydrologic datasets, drawn from the available historical records, for the hydrologic record for analysis, sufficient to account for the range of meteorologic and hydrologic variability, including driest and wettest years, and extended droughts.
    2. Use a geographic scope, spatial resolution, and time-step that are sufficient to accurately quantify the physical benefits claimed.
    3. Revise datasets to describe the without-project future conditions over the planning horizon, adjusted to reflect changes from the historical infrastructure, land use, water use, operations, agreements, laws, and regulations. If the applicant determines that the required revisions are not applicable to the analysis of a proposed project, the applicant shall explain why the revisions are not applicable.
    4. Document how calculations of expected physical changes are derived and show the linkage between the proposed project, its operations plan, and the expected physical changes, and public and non-public benefits, created or caused by the proposed project.
  - ii. The applicant shall disclose and quantify where possible any impacts the proposed project would impose on uses and storage of water that would have otherwise occurred under the without-project future condition.
  - iii. Physical benefits claimed shall be reported using metrics and units as needed to support claimed economic benefits.
- (4) Monetize the Value of Project Benefits. The applicant shall, to the extent defensible, estimate the monetary value of physical benefits in accordance with subsections i-viii below. The appropriate level of analysis for monetizing each public benefit type depends on the magnitude of that public benefit compared to all public benefits or the size of the project. If physical benefits cannot be monetized, the applicant shall provide justification why and include a qualitative description of the benefits.
  - i. The analysis shall be conducted in constant 2015 dollars. All future costs and benefits must be displayed in constant dollars for each year of the planning horizon.

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- ii. The planning horizon shall not exceed 100 years.
  - iii. A 3.5 percent real (inflation-free) discount rate shall be used for all calculations that convert a constant dollar monetary value of benefit or cost into an equivalent value at another point in time.
  - iv. Where future population levels are relevant to benefits calculations, the applicant shall use population forecasts that are consistent with 2015 or the most current California Department of Finance population projections.
  - v. The applicant shall calculate, display, and justify the cost of the least-cost of alternative means for providing the same amount or more of the total physical public benefits as provided by the proposed project, if there is a least one feasible alternative means of provided the same amount or more of the total public benefits.
  - vi. The applicant shall calculate, display, and justify for each benefit category, the following monetary benefits, if the applicant determines that they are applicable to the proposed project:
    - 1. Avoided cost
    - 2. Cost of feasible alternative means that provide at least the same physical benefit
    - 3. Willingness-to-pay benefit, if it can be justified and documented
  - vii. The applicant shall tabulate the amount of physical benefits monetized using each of the methods in subsection vi above.
  - viii. Benefits that trend or otherwise change over the planning horizon must be justified and documented.
- (5) Estimate the Project Costs. The applicant shall include the total project costs, including construction, interest during construction, contingencies, land acquisition, monitoring, mitigation, operations and maintenance, repair, and replacement costs within the planning horizon.
- i. All cost estimates shall be in 2015 dollars.
  - ii. All cost estimates shall be no more than five (5) years old at the time of the submittal of the application.
  - iii. Cost estimates that are five (5) years old or less at the time of the submittal of the application shall be escalated to 2015 dollars using cost escalation indices.
  - iv. Project cost estimates shall be reviewed, approved, and signed by a California licensed Professional Engineer who is involved in the planning and design of the proposed project.
  - v. Future real energy costs or energy cost savings shall be escalated 1.7 percent annually to 2024 unless otherwise justified. Real unit energy costs shall be held constant thereafter unless justified.
  - vi. The costs for conveying water shall be based on existing non-energy variable costs and escalated energy costs.
- (6) Compare Benefits to Costs. The applicant shall display and compare the present value of monetized benefits and costs of the proposed project.

**Comment [AWR1]:** See ACWA Comment Letter, at p. 5.

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- i. For each benefit category, the applicant shall provide the following items:
    - 1. The present value of the expected value of monetary benefits over the planning horizon.
    - 2. The estimated Program cost share for each public benefit category, in present values, and documentation regarding how each Program cost share was calculated.
  - ii. For any monetized public benefit, the applicant shall calculate the expected return for public investment pursuant to the Program by:
    - 1. The internal rate of return which equates the present value of public benefits with the requested Program cost share, and
    - 2. The ratio of the present value of public benefits to the requested Program cost share.
- (7) Allocate Costs to Beneficiaries. The applicant shall provide a tentative allocation of all costs to the project beneficiaries and justify the method selected for the allocation.
- i. At a minimum, project costs shall be allocated to ecosystem improvements, all other public, and non-public benefit categories.
  - ii. Public benefit cost shares for the five public benefit categories may be allocated to the State, the United States, local governments, or private interests. The portion of public benefit cost shares allocated to the Program:
    - 1. Shall consider the share of public benefits received by Californians
    - 2. Shall not exceed 50 percent of the total capital costs of any funded project, per Water Code Section 79756.
    - 3. Shall provide ecosystem improvements that are at least 50 percent of the total public benefits of a funded project, per Water Code Section 79756.
    - ~~4. Project costs associated with an applicant's existing mitigation or compliance obligation shall not be part of the public benefit cost share assigned to the Program.~~
    - ~~5. The cost share of mitigation and compliance costs associated with a proposed project component shall not exceed the percentage of the public benefit allocation for the related benefit category.~~
- (8) Sources of Uncertainty. The applicant shall conduct sensitivity 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).
- i. Sensitivity analyses, with the best available science, shall include:
    - 1. Climate change and sea level rise. Climate change impacts are expected to occur differently across the state. Applicants shall select the watershed area(s) that are most associated with the proposed project and the benefits claimed, and conduct:

**Comment [AWR2]:** See ACWA Comment Letter, at pp. 5-6.

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- a. Qualitative analyses using the range of increases in temperature shown in Table 1.
  - b. Qualitative analyses using the range of percent changes in precipitation shown in Table 1.
  - c. Qualitative analyses using the range of increases in sea level of at least 45 centimeters and up to 105 centimeters.
  - d. Quantitative analysis of one specific combination of changes in temperatures, precipitation, and sea level. The applicant shall select a combination of changes for the period 2036-2065, that differs from the historical period average (1961-1990) by the following amounts:
    - (i) Average statewide precipitation at least XX [TBD] percent drier;
    - (ii) Average statewide temperature at least XX [TBD] degrees Fahrenheit warmer; and
    - (iii) Sea level rise of at least 45 centimeters higher.
  - e. If the applicant determines that the quantitative analysis is not applicable to the proposed project, the applicant shall provide a qualitative analysis or otherwise explain why a quantitative analysis is not applicable.
2. Future projects and water management actions:
- a. Qualitative analysis using future projects and water management actions included in the applicant's CEQA cumulative impact analysis that could affect the public benefits claimed.
- (9) Documentation. The applicant shall provide documentation to support data, assumptions, methods, calculations, and results. The applicant shall use sources of information that are publicly-available whenever possible or submitted with the application. The quality of the documentation will be evaluated as part of the technical review.

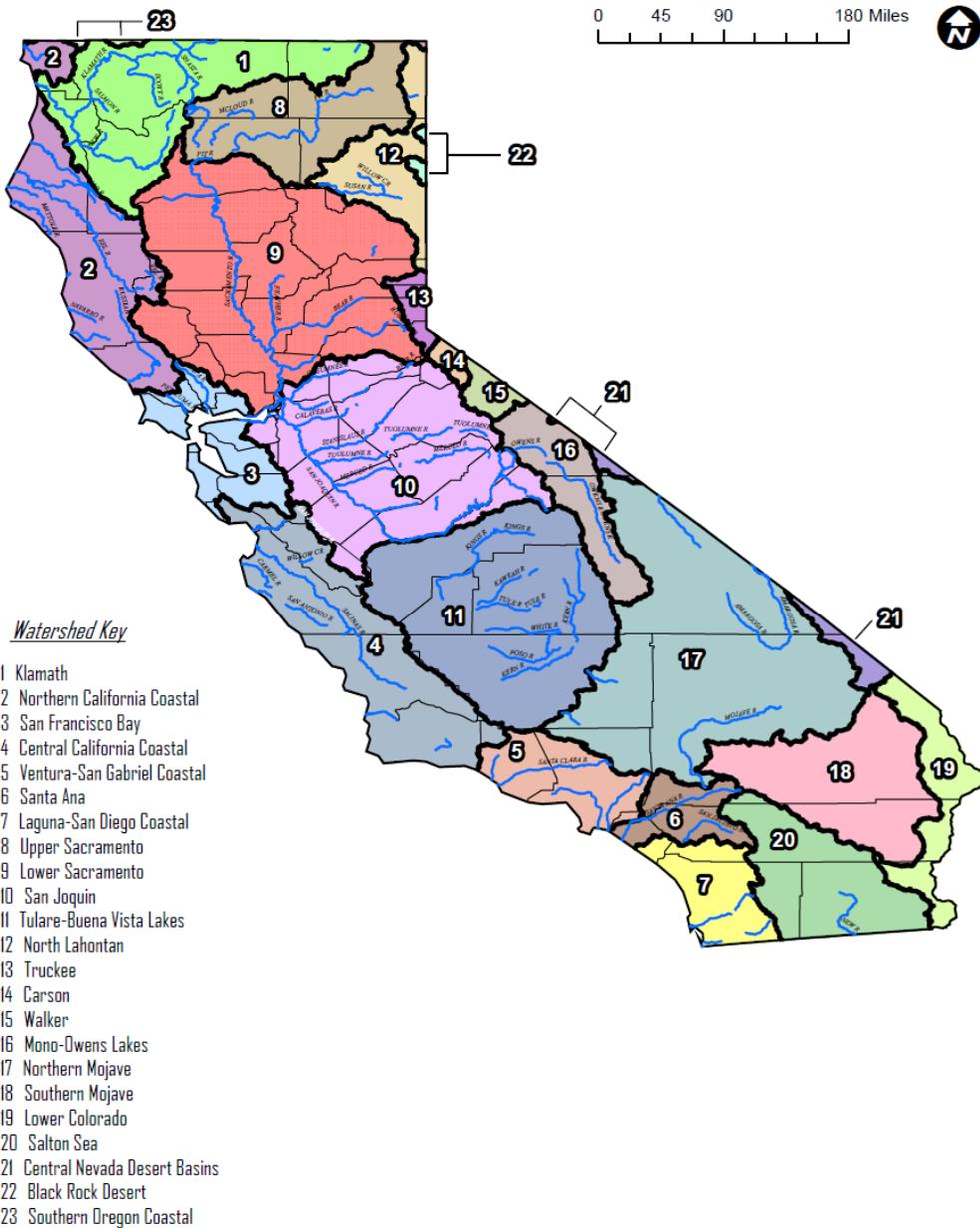
NOTE: Authority cited: Water Code Section 79754

Reference: Water Code Section 79756, 79755(a)(2), 79757(2)

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**Table 1. Range of percent changes in precipitation and increases in temperature for the period 2036-2065 for use in climate change qualitative analyses. Watershed areas are shown in Figure 1.**

Watershed Area Name	Minimum Precipitation Change (%)	Maximum Precipitation Change (%)	Minimum Temperature Change (°F)	Maximum Temperature Change (°F)
<b>Central Valley Watershed Areas</b>				
Upper Sacramento	-3.3	6.8	4.0	5.4
Lower Sacramento	-1.1	7.2	3.8	4.9
San Francisco Bay	0.2	7.4	3.0	4.3
San Joaquin	-2.5	6.2	3.8	5.0
Tulare-Buena Vista Lakes	-3.2	3.6	4.0	5.4
<b>Other Watershed Areas</b>				
Klamath	-1.8	8.2	4.2	5.3
Northern California Coastal	-0.9	15.3	2.9	4.3
North Lahontan	-0.5	4.5	4.5	6.0
Mono-Owens Lakes	-1.6	3.7	4.7	6.1
Central California Coastal	-2.2	5.2	2.9	3.9
Northern Mojave	-1.4	0.7	4.3	5.7
Ventura-San Gabriel Coastal	-4.0	3.0	3.2	4.6
Santa Ana	-3.4	2.1	3.0	4.5
Southern Mojave	-1.0	0.5	4.4	5.8
Lower Colorado	-1.1	0.5	4.4	6.1
Salton Sea	-1.1	0.6	4.2	5.9
Laguna-San Diego Coastal	-3.8	1.2	3.1	4.6
Truckee	-0.6	4.4	4.9	6.3
Carson	-0.5	3.1	5.0	6.4
Walker	-1.6	3.4	4.7	6.4
Central Nevada Desert Basins	-0.6	1.9	4.6	6.1
Black Rock Desert	0.0	2.8	4.8	6.1
Southern Oregon Coastal	-1.9	10.0	3.5	4.7



### HYDROLOGIC UNIT CODE (HUC) 6 WATERSHED BOUNDARIES IN CALIFORNIA

**Figure 1. Watershed areas for range of percent changes in precipitation and increases in temperature for use in climate change qualitative analyses. Refer to Table 1 for values for each watershed area.**

**Attachment A: Redline-Strikeout Comments  
Association of California Water Agencies, October 23, 2015**

Section 6005. Priorities

- (a) In accordance with Water Code Section 79754, the California Department of Fish and Wildlife has determined ecosystem priorities as follows:
- (1) Flow and Water Quality
    - i. Provide cold water at times and locations to increase the survival of salmonid eggs and fry.
    - ii. Enhance flows to improve habitat conditions for in-river rearing and downstream migration of juvenile salmonids.
    - iii. Maintain flows and appropriate ramping rates at times and locations that will minimize dewatering of salmonid redds and prevent stranding of juvenile salmonids in side channel habitat.
    - iv. Increase flows to improve ecosystem water quality.
    - v. Increase flows to support anadromous fish passage by providing adequate dissolved oxygen and lower water temperatures.
    - vi. Increase attraction flows during the upstream migration period to reduce straying of anadromous species into non-natal tributaries.
    - vii. Increase Delta outflow to provide slow salinity habitat for Delta smelt, longfin smelt, and other estuarine fishes in the Delta, Suisun Bay, and Suisun Marsh.
    - viii. Maintain groundwater and surface water interconnection to support instream benefits and groundwater dependent ecosystems.
  - (2) Physical Processes and Habitat
    - i. Enhance flow regimes to improve the quantity and quality of riparian and floodplain habitats for aquatic and terrestrial species.
    - ii. Enhance floodplains by increasing the frequency, magnitude, and duration of floodplain inundation to enhance primary and secondary productivity and the growth and survival of fish.
    - iii. Enhance the temporal and spatial distribution and diversity of habitats to support all life stages of fish and wildlife species.
    - iv. Enhance access to fish spawning, rearing, and holding habitat by eliminating barriers to migration.
    - v. Remediate unscreened or poorly screened diversions to reduce entrainment of fish.
    - vi. Provide water to enhance seasonal wetlands, permanent wetlands, and riparian habitat for aquatic and terrestrial species on state and federal wildlife refuges and on other public and private lands managed for ecosystem values.
    - vii. Develop and implement non-native invasive species management plans utilizing proven methods to enhance habitat and increase the survival of native species.
    - viii. Enhance habitat for native species that have commercial, recreational, scientific, and educational value.

**Attachment A: Redline-Strikeout Comments  
Association of California Water Agencies, October 23, 2015**

- (b) In accordance with Water Code Section 79754, the State Water Resources Control Board has determined the water quality priorities as follows:
- (1) Improve water temperature conditions in water bodies on California's CWA 303(d) list that are impaired for temperature.
  - (2) Improve dissolved oxygen conditions in water bodies on California's CWA 303(d) list that are impaired for dissolved oxygen.
  - (3) Improve nutrient conditions in water bodies on California's CWA 303(d) list that are impaired for nutrients.
  - (4) Improve mercury conditions in water bodies on California's CWA 303(d) list that are impaired for mercury.
  - (5) Improve salinity conditions in water bodies on California's CWA 303(d) list that are impaired for sodium, total dissolved solids, chloride, or specific conductance/electrical conductivity.
  - (6) Protect, clean up, or restore groundwater resources in CASGEM high- and medium-priority basins.
  - (7) Achieve Delta tributary stream flows that resemble natural hydrograph patterns or other flow regimes that have been demonstrated to improve conditions for aquatic life.
  - (8) Reduce current or future water demand on the Delta watershed by developing local water supplies.
  - (9) Provide water for basic human needs, such as drinking, cooking, and bathing, in disadvantaged or similarly situated communities, where those needs are not being met.

NOTE: Authority cited: Water Code Section 79754  
Reference: Water Code Section 79754

Section 6006. Relative Environmental Value

- (a) In accordance with Water Code Section 79754, the California Department of Fish and Wildlife has determined how relative environmental values shall be assessed for ecosystem benefits. The criteria listed below will be used to determine the relative environmental value of the ecosystem improvement benefits:
- (1) Number of ecosystem priorities addressed by the project.
  - (2) Magnitude and certainty of ecosystem improvements.
  - (3) Spatial and temporal scale of ecosystem improvements.
  - (4) Inclusion of an adaptive management and monitoring program that includes measurable objectives, performance measures, thresholds, and triggers for managing ecosystem benefits.
  - (5) Immediacy of ecosystem improvement actions and realization of benefits.
  - (6) Duration of ecosystem improvements.
  - (7) Consistency with species recovery plans and strategies, initiatives, and conservation plans.

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- (8) Location of ecosystem improvements and connectivity to areas already being protected or managed for conservation values.
  - (9) Efficient use of water to achieve multiple ecosystem benefits.
  - (10) Resilience of ecosystem improvements to the effects of climate change.
- (b) In accordance with Water Code Section 79754, the State Water Resources Control Board has determined how relative environmental values shall be assessed for water quality benefits. The criteria listed below will be used to determine the relative environmental value of the water quality improvements:
- (1) Number of water quality priorities addressed by the project.
  - (2) Magnitude and certainty of water quality improvements.
  - (3) Spatial and temporal scale of water quality improvements.
  - (4) Inclusion of an adaptive management and monitoring program that includes measurable objectives, performance measures, thresholds, and triggers for managing water quality benefits.
  - (5) Immediacy of water quality improvement actions and realization of benefits.
  - (6) Duration of water quality improvements.
  - (7) Consistency with water quality control plans, water quality control policies, and the Sustainable Groundwater Management Act (2014).
  - (8) Connectivity of water quality improvements to areas that support beneficial uses of water or are being managed for water quality.
  - (9) Resilience of water quality improvements to the effects of climate change.
  - (10) Extent to which water quality improvement provides water for basic human needs, such as drinking, cooking, and bathing, in disadvantaged or similarly situated communities, where those needs are not being met.
  - (11) Extent to which undesirable groundwater results that are caused by extractions are addressed.

NOTE: Authority cited: Water Code Section 79754  
Reference: Water Code Section 79754

**Section 6007. Managing Public Benefits**

- (a) The applicant shall describe how the proposed project will be operated and managed to provide the public benefits claimed. The applicant shall submit the following information:
- (1) Identification of the public benefits claimed;
  - (2) An operations plan or documentation describing, at a minimum, the following items:
    - i. Project operations and public benefits under a range of hydrologic conditions;
    - ii. A description of how operations will be monitored to ensure public benefits are provided, including all elements of subsection 3;

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- iii. How operational decisions will be made if conditions fall outside the range of anticipated conditions or if public benefits are not provided as anticipated in the application; and
  - iv. Potential management actions to a range of monitoring results.
- (3) A preliminary monitoring and reporting plan that, at a minimum, includes the following items:
- i. Measurable goals and objectives;
  - ii. Metrics used to evaluate project performance;
  - iii. Conceptual models relevant to each monitoring action;
  - iv. Physical, chemical, or biological parameters measured;
  - v. Location and frequency of monitoring actions;
  - vi. Thresholds and triggers to initiate management actions; and
  - vii. Parties, including public agencies responsible for administering the public benefits, responsible for conducting the monitoring program.
- (3) Assurances describing, at a minimum, the following:
- i. Funding sources and financial commitments to implement the monitoring and reporting.
  - ii. Means by which information used to monitor public benefits will be made publicly available; and
  - iii. Commitment to the implementation of an adaptive management program.
- (4) Any project funded under the Program shall, on an annual basis commencing with the end of the first full year of operation, submit a report to the Commission and the public agencies identified in Water Code Section 79754. The report shall include, at a minimum, a comparison of actual operations to those described in the final operations plan and documentation of annual public benefits provided. The reports shall be submitted annually for the life of the project or until such time as the Commission makes a determination that the reports are no longer necessary. This and any additional reporting requirements shall be implemented through the funding agreement or agency contracts specified in Water Code 79755(a)(3).

NOTE: Authority cited: Water Code Section 79754, 79706a  
Reference: Water Code Section 79754, 79706a