

CALIFORNIA CODE OF REGULATIONS
TITLE 23. WATERS.
DIVISION 7. CALIFORNIA WATER COMMISSION
CHAPTER 1 WATER STORAGE INVESTMENT PROGRAM

Article 1 Definitions

Section 6000. Definitions (Definitions without text are still being developed)

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

- (a) “Alternative cost” means the least cost, feasible alternative for providing at least as much physical benefit as provided by a proposed project.
- (b) “Applicant” means the entity that is formally submitting a grant application. This is the same entity that would enter into an agreement with the Commission should the grant application be funded.
- (c) “Application” means the submission to the Commission that requests grant funding for a proposed project.
- (d) “Avoided cost” means the reduction in an existing or expected future cost that would occur as a result of the proposed project.
- (e) “Beneficial uses of the Delta” means
- (f) “Beneficiary” means
- (g) “Biological conditions” means
- (h) “CALFED surface storage projects” mean Los Vaqueros Reservoir Expansion, In-Delta Storage Project, Sites Reservoir, and Temperance Flat Reservoir.
- (i) “CEQA” means the California Environmental Quality Act.
- (j) “Commission” means the California Water Commission.
- (k) “Commitment” means
- (l) “Complete application” means an application that consists of all of the requested information and supporting documentation, which is submitted prior to the close of a solicitation period.
- (m) “Conjunctive use projects”
- (n) “Constant dollar year” means the year to which all dollar values are adjusted for inflation so they can be compared.
- (o) “Conveyance costs” mean
- (p) “Cost effectiveness” means a demonstration that a proposed project’s public cost share is the least-cost feasible means of providing the same or more amounts of the project’s public benefits.
- (q) “Cost share” means
- (r) “Cost share partners” mean

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- (s) “Cost allocation” means
- (t) “Days” means calendar days.
- (u) “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.
- (v) “Department” means the Department of Water Resources.
- (w) “Discount rate” means the real interest rate, applied to costs or benefits in constant dollars, used to calculate present value or annual equivalent (amortized) value.
- (x) “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 of 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.
- (y) “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 grantee through a binding agreement.
- (z) “Environmental documentation” means documentation required by the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.
- (aa) “Emergency response” means 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.
- (bb) “Existing condition” means the infrastructure, population, land use, water use, climate, and all other relevant factors, including operations plans, agreements, laws and regulations that are in place in the current or a very recent year, normally stated as a particular year.
- (cc) “Feasibility” means
- (dd) “Field cost” means the estimate of the capital costs of a project from award to construction closeout. The field cost equals the contract cost plus construction contingencies.
- (ee) “Flood control benefits” mean a public benefit that reduces or prevents the detrimental effects of flooding as a result of new, expanded, or reoperated storage projects. Per Water Code Section 79753(a)(3), flood control benefits include, but are not limited to, increases in flood reservation space in existing reservoirs by exchange for existing or increased water

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- storage capacity in response to the effects of changing hydrology and decreasing snow pack on California’s water and flood management system.
- (ff) “Future condition” means the most likely infrastructure, population, land use, water use, and all other factors including operating plans, laws, and regulations that are expected in the future, normally stated as a particular year in the planning horizon.
 - (gg) “Grantee” means an applicant that receives an initial or final funding commitment.
 - (hh) “Groundwater contamination prevention project” means a project that prevents groundwater contamination by eliminating contamination sources from point sources or non-point sources or a project that prevents unacceptable seawater intrusion or migration of contaminants into groundwater basins through the use of seawater or hydraulic barriers. For the purposes of this program, groundwater contamination prevention projects must provide water storage benefits.
 - (ii) “Groundwater remediation project” means a project that mitigates or removes constituents or contaminants that have degraded groundwater quality or projects that restore the capacity of the groundwater basin storage for beneficial uses. For the purposes of this program, groundwater remediation projects must provide water storage benefits.
 - (jj) “Groundwater storage project” means
 - (kk) “Hydrologic record for analysis” means a period of historic years chosen for the analysis that has continuous hydrologic information such as precipitation, inflows, storage, flows, water diversions, and/or water consumption available.
 - (ll) “Improve the operations of the state water system” means
 - (mm) “Internal rate of return” means
 - (nn) “Local and regional surface storage project” means a project that stores water above ground from 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 the CALFED surface storage projects, or other components of the State Water Project or Central Valley Project. Such projects primarily address increasing local or regional self-reliance, improving the operations of the local or regional water system(s), or improving integrated regional water management.
 - (oo) “Magnitude of public benefits” means
 - (pp) “Measurable improvements” means changes in physical, chemical, or biological conditions that provide ecosystem benefits and can be quantified at a specific location and time.
 - (qq) “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 as defined in Public Utilities Code Section 2725.
 - (rr) “Net improvement” means
 - (ss) “Nonprofit organization” means an organization qualified to do business in California and qualified under Section 501(c)(3) of Title 26 of the United States Code.
 - (tt) “Non-public benefit” means benefits provided by a project other than the public benefits identified in Water Code Section 79753(a)(1-5).

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- (uu) “Permits” mean any federal, state, or local approval, certification, or agreement required to construct, implement, or operate a proposed project.
- (vv) “Physical benefits” mean
- (ww) “Physical change” means
- (xx) “Physical conditions” mean
- (yy) “Planning horizon” means the future time period over which project costs will be paid and benefits received, normally based on the expected useful life of the project.
- (zz) “Pre-application” means the first step in a two-step application process.
- (aaa) “Present value” means the sum of discounted future costs or benefits over the planning horizon.
- (bbb) “Priorities” mean
- (ccc) “Program” means the Water Storage Investment Program.
- (ddd) “Projected condition” means
- (eee) “Projected condition with climate change” means
- (fff) “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.
- (ggg) “Public benefit” means ecosystem improvements, water quality improvements, flood control benefits, emergency response, and recreation associated with water storage projects.
- (hhh) “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.
- (iii) “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).
- (jjj) “Recreational purposes” mean a public benefit that provides recreation activities 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.
- (kkk) “Relative environmental value” means
- (lll) “Reservoir reoperation project” means a project that involves the modification of the operations of an existing surface storage reservoir to improve operational efficiencies, provide water and/or storage benefit for the environment, or respond to changing conditions. A reservoir reoperation project also includes construction of appurtenant infrastructures such as spillways, radial gates, tunnels, or conveyance facilities. 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 (e.g., a Water Control Manual for a reservoir) or operating permits.
- (mmm) “Resource areas” mean

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- (nnn) “Self-certification” means
- (ooo) “Socioeconomic conditions” mean
- (ppp) “Spatial resolution” means
- (qqq) “Staff” means
- (rrr) “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.
- (sss) “Surface and groundwater operations” mean
- (ttt) “Study area” means
- (uuu) “Tributaries to the Delta” mean all river systems that make up the Sacramento River watershed and the San Joaquin River watershed (i.e., the natural/topographic hydrologic basins). Tributaries to the Delta include areas upstream of dams or other impoundments.
- (vvv) “Water quality improvements” mean a public benefit that improves water quality to provide significant public trust resources in the Delta or in other river systems, or that clean up or restore groundwater resources, per Water Code Section 79753(a)(2).
- (www) “Watersheds” mean
- (xxx) “Willingness to pay” means the amount of money that people would be willing to give up for a quantity of a good if there was no alternative means of obtaining that same quantity.

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)

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Article 2. Guidelines

Section 6001. General Provisions

(a) Confidentiality

- (1) Information submitted to the Commission pursuant to this chapter is available to the public, with the exception of documents that may pose security concerns if they were made public, such as facility as-builts. 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.

(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

- (2) Eligible project types include:

- i. CALFED surface storage projects
- ii. Groundwater storage projects
- 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
- vii. Regional surface storage projects

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, pre-application, contains basic applicant and project information. Project information gathered in the pre-application step shall be posted on the Commission’s website and open for public comment. Applicants may consider the Commission’s assessment and public comments received by the Commission, as well as posted project information before proceeding to the second step, preparation of a full application. When the Commission opens the solicitation for full applications, applicants deciding to continue in the selection process shall prepare and submit a full application for Commission consideration in the project selection process.

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(b) Pre-application

- (1) Applicants shall complete and submit a pre-application, using the Department's on-line application submittal tool, during the solicitation period.
- (2) The pre-application shall contain:
 - i. Eligible applicant information
 - ii. Eligible project type
 - iii. Amount of grant funds being requested and estimated total project cost
 - iv. Contact information
 - v. Project name, location, water source, and description
 - vi. Summary of the estimated magnitude of physical public benefits over the project planning horizon
 - vii. Potential beneficiaries, distinguishing public versus non-public benefit
 - viii. Approximate location, description, and magnitude of measurable improvements to the Delta ecosystem or to the tributaries to the Delta
 - ix. Self-certification that the applicant understands that the pre-application is the initial step in the selection process and does not guarantee project funding, a full application is necessary to fully establish eligibility and provide information necessary for funding decisions by the Commission
- (3) Staff shall review all pre-applications and assess the information to determine which proposed projects will likely meet the eligibility requirements.
- (4) Staff shall provide preliminary assessments of the pre-applications to the Commission.
- (5) The Commission shall provide opportunity for public review and comment of the pre-applications. The Commission shall consider public comments in their final assessments.
- (6) The Commission shall issue pre-application project 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, before an applicant decides whether to prepare a full application. The assessments shall be posted on the Commission's website.

(c) Full Application

- (1) Applicants shall complete and submit an application, using the Department's on-line application submittal tool, prior to the close of the application solicitation. A complete application shall contain at least the following information:
 - i. Documentation demonstrating eligibility
 - ii. Proposed project description
 - iii. Documentation that demonstrates project feasibility, including feasibility studies completed for the proposed project
 - iv. Documentation and analyses that support and substantiate claimed physical benefits and measurable improvements to the Delta or to the tributaries to the Delta
 - v. Benefit and cost analysis
 - vi. Most recent publically-available environmental document

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- vii. A listing of all local, state, and federal permits, certifications, and other approvals necessary for construction and operation of the proposed project, along with a description of the status of each permit, certification, and other approval
 - viii. Documentation that demonstrates consistency with applicable laws and regulations
 - ix. Documentation that demonstrates advancement of the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta
 - x. Estimated project costs
 - xi. Estimated project schedule
 - xii. Preliminary monitoring, assurances, and reporting plan as described in Section 6007
 - xiii. Documentation that demonstrates the degree and certainty that the project benefits address the program ecosystem and water quality priorities and relative environmental values
 - xiv. Documentation that demonstrates managerial, technical, and financial capacity
 - xv. Other items deemed necessary by the Commission
- (2) 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 the Commission. If an applicant does not furnish the requested information within the 14-day period, then the application can be disqualified by the Commission and may not be considered for grant funding.
 - iv. Applications that are deemed eligible and complete by Staff shall be moved to the technical review phase.
 - v. Each application shall be reviewed for eligibility in accordance with paragraphs 1-6 below:
 - 1. Documentation that demonstrates the applicant is eligible as listed in Section 6001(b)(1).
 - 2. Documentation demonstrating that the project meets all of the following criteria:
 - a. Is an eligible project type under 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;
 - c. Is in compliance with all applicable laws and regulations; and
 - d. Provides measurable improvements to the Delta ecosystem or to the tributaries to the Delta.

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3. Submittal of the most recent publicly available version of the proposed project’s environmental document.
4. Documentation from duly authorized representatives of non-public benefit cost-share partners demonstrating commitments to provide not less than 75 percent of the non-public benefit cost-share.
5. For applications 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 receiving grant funds, documentation indicating the urban or agricultural water supplier is in compliance with the requirements of Water Code Section 10608.56.
6. For applications that include proposed projects that directly affect groundwater levels or quality, the applicant shall demonstrate one of the following:
 - a. For projects located in medium and high priority groundwater basins, compliance with regulations adopted by the Department pursuant to Water Code Section 10733.2 effective as of the application submittal date.
 - b. For projects located in a low or very low priority groundwater water basins, compliance with one of the following:
 - i. Participation or consent to be subject to a groundwater management plan, basin-wide management plan, or other plan that meets the requirements of Water Code Section 10753.7.
 - ii. If compliance with the paragraph i above is not possible, 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).

(3) Technical Review

- i. Applications that are deemed complete and eligible by the review outlined in Section 6002(c)(2) of these regulations shall be evaluated for the following items during the technical review:
 1. Magnitude of the quantified public benefits
 2. Cost and cost share
 3. Return on investment
 4. Cost-effectiveness
 5. Improvements to the operation of the state water system
 6. Project feasibility
 7. Monitoring and management of public benefits
 8. Other items deemed necessary by the Commission

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- 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 as Staff determines are needed.
- iii. The technical reviewers shall evaluate the accuracy of the valuation of public benefits. For ecosystem benefits and water quality benefits, the technical reviewers, with the State Water Resources Control Board and Department of Fish and Wildlife, shall evaluate the relative values of the ecosystem and water quality benefits.
- 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 allocations.
- 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 with a reasonable time period for response not to exceed 60 days. If requested information is not provided within the specified time period, the applications shall be evaluated as originally submitted.

(4) Independent Peer Review

- i. Staff shall work with independent peer reviewers consisting of technical experts that are not associated with the technical reviewers, applicant, or project beneficiary. The independent peer reviewers shall, at a minimum, consider the conclusions of the technical reviews and document whether they agree with the conclusions.
- ii. The independent peer reviewers may contact the technical reviewers 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.

(5) The Commission shall make initial funding decisions based on the findings of the technical reviews, independent peer reviews and public input provided to the Commission.

(6) Initial findings, technical reviews, and independent peer reviews shall be made available to the applicants, posted on the Commission's website, and made available for public comment.

(7) Applicants and the public shall have at least 14 days to respond to the Commission's initial funding decisions.

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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) The process of committing funds involves multiple steps. The Commission shall make initial funding decisions based on the steps in Section 6002. The initial funding decision shall be expressed as a conditional commitment to grantees but actual encumbrance of funding shall be contingent on the grantee complying with the following, which are contained in Water Code Section 79755(a):

- (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
- (3) Feasibility studies have been completed
- (4) Environmental documentation associated with the project has been completed
- (5) All required permits have been secured

The grantee shall submit to the Commission routine progress reports, at a period to be specified by the Commission, but not less frequently than annually, that document the progress that the grantee is making towards complying with the items contained in subsection (a) above. The time necessary for a project to meet all of the provisions will vary. When all required provisions are met, funds can be encumbered.

(b) Conditional Funding Commitment

- (1) The Commission shall adopt a resolution documenting any conditional funding commitments.
- (2) The Commission's conditional funding commitment 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(d)(1).
- (3) Staff shall send letters to grantee authorized to receive funds reflecting the Commission's conditional funding commitment and requesting any information needed to progress from the conditional commitment to the funding agreement(s). This may include:
 - i. Grantee's audited financial statements
 - ii. Items stated in Section 6003(a)
 - 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. Reporting interval for status of Section 6003(a) items

(c) Funding for Permits. The Commission may provide funding for a project to complete the necessary permits, per Water Code Section 79755(c). The decision to provide such permit

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funding is at the discretion of the Commission and shall be considered part of the overall cost allocation of funds to a project. Notwithstanding subsection (a) of this section, funds may be encumbered for work associated with permits once the conditional funding commitment is made.

- (1) Funds will not be disbursed until the grantee 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; funding for permits is not an addition to the conditional funding commitment.
 - (3) Funding for permits shall not exceed 10 percent of the conditional funding commitment.
- (d) Funding for Construction and/or Project Reoperation Activities.
- (1) Funding for construction activities remains contingent until a final operations plan and all items in Section 6003(a) are complete and have been submitted to the Commission. From the time of the conditional funding commitment until these items are complete, the grantee shall report to the Commission at least annually with progress updates. If the grantee 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) When a grantee has complied with the requirements in Section 6003(d)(1), the Commission shall make a decision regarding a final funding commitment at a publically-noticed Commission meeting.
 - (3) Funding Agreements for Construction Activities
 - i. Funds shall be encumbered for work associated with construction activities after all items in Section 6003(d)(2) are complete.
 - ii. Funds will not be disbursed until the grantee enters into a funding agreement with the Commission and has met all relevant disbursement conditions.

NOTE: Authority cited: Water Code Section 79706

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

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 accurate cost allocations and determination of allowable grant funding. The magnitude of benefits shall be calculated using the physical 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, physical,

biological, and socioeconomic conditions, and other resource areas 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, 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 shall include in the study area for analysis any watershed(s)/ regions(s), which may include the Delta and other watersheds of State Water Project and Central Valley Project facilities, that may have changes created by or caused by the proposed project.
 - iii. The without-project future conditions shall not include conditions that will be addressed through sensitivity analyses described in Section 6004(a)(8).
- (2) Define the With-Project Future Conditions. The applicant shall define and assess future conditions with the project completed as proposed (i.e., the with-project future conditions). 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 provided by the proposed project by calculating the physical changes between the with-project future conditions and without-project future conditions.
- i. The applicant shall:
 1. Use long-term sequential hydrologic datasets, drawn from the available historical records, for the period of 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 be consistent with the without-project future conditions, adjusted to reflect changes from the historical level of development, 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 demonstrate water balance, including the following items:
 1. The sources and fate of water supply provided by the proposed project over the planning horizon.
 2. Beginning and ending conditions for storage.

- iii. Physical benefits shall be reported using appropriate physical 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 paragraphs i-ix below. 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.
 - ii. The planning horizon shall not exceed the expected life of the project, or 100 years, whichever is less, plus the construction period.
 - iii. A 3.5 percent real (inflation-free) discount rate shall be used for all calculations involving discounting, compounding, present value, or annual equivalent (amortization) values of public and non-public benefits.
 - iv. Where future population levels are relevant to benefits calculations, the applicant shall use population forecasts that are consistent with 2015 Department of Finance population projections.
 - v. If there is at least one feasible alternative means of providing the same amount or more of physical public benefits as provided by the proposed project, applicants shall calculate and display the cost of the least-cost of these alternative means.
 - vi. The applicant shall estimate 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. Alternative cost
 - 3. Willingness-to-pay benefit, if it can be justified and documented
 - vii. The amount of physical benefit valued using avoided cost and the remaining amount valued using either alternative cost or willingness-to-pay must be displayed.
 - viii. To claim benefits that trend upward over the planning horizon, the applicant shall provide the monetary benefits estimates for at least two years between the present and 50-years into the project life. Interpolation and extrapolation may be used to estimate benefits for the first 50-years of the project life. If the project life is greater than 50-years, the benefits should be constant for the remaining years of the planning horizon unless justified.
 - ix. The appropriate level of analysis for monetizing each public benefit type will depend on its magnitude relative to all benefits and on the size of the project as suggested by its project costs.
- (5) Estimate the Project Costs. The applicant shall include the total project costs, including construction, interest during construction, contingencies, land acquisition, mitigation, operations and maintenance, repair, and replacement costs within the planning horizon.

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- i. All cost estimates shall be in 2015 dollars.
 - ii. All cost estimates shall be no more than 5 years old at the time of the submittal of the application.
 - iii. Cost estimates that are 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 licensed Professional Engineer who is involved in the design of the proposed project at a supervisory level.
 - 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. Conveyance costs shall be based on existing conveyance rates adjusted for future 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.
- 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 public cost share for each public benefit category, in present values, and documentation regarding how each public cost share was calculated.
 - ii. For any monetized public benefit, the applicant shall calculate the expected return for public investment by:
 1. The internal rate of return to the state investment, and
 2. The ratio of the present value of public benefits to the present value of the public cost share.
- (7) Allocate Costs to Beneficiaries. The applicant shall allocate 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 and all other public and non-public benefit categories. Applicants shall justify the cost allocation method selected.
 - 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 share of public benefit cost shares allocated to the state:
 1. Shall consider the share of public benefits received by Californians
 2. Shall not exceed 50 percent of the total costs of any funded project (Water Code Section 79756).
 3. Shall provide ecosystem improvements that are at least 50 percent of the total public benefits of a funded project (Water Code Section 79756).
- (8) Sources of Uncertainty. The applicant shall conduct sensitivity analyses to describe how the expected physical changes and public benefits provided by the proposed project

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might change due to potential future condition uncertainties not included in the without-project and the with-project conditions described in Section 6004(a)(1-2).

i. Sensitivity analyses shall include:

1. Climate change and sea level rise:
 - a. Qualitative analysis using increases in temperatures shown in Figures 1a and 1b (Figures under development)
 - b. Qualitative analysis using percent changes in precipitation shown in Figures 2a and 2b (Figures under development)
 - c. Qualitative analysis using increases in sea level of 45 centimeters and 105 centimeters
 - d. Quantitative analysis of one specific combination of changes in temperatures, precipitation, and sea level. The applicant shall select the combination from within the ranges described in paragraphs a through c above, and shall describe why the selected combination is appropriate for the proposed project. If the applicant determines that the quantitative analysis is not applicable to the proposed project, the applicant shall explain why a quantitative analysis is not applicable.
2. Delta outflow requirements:
 - a. Quantitative analysis using a potential increase in Delta outflow requirements, for the months of March through May (e.g., similar to the Enhanced Spring Delta Outflow assumptions used for the State Water Project Delivery Capability Report 2015). 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.
3. Future projects and water management actions:
 - a. Qualitative analysis using future projects and water management actions included in the applicant's CEQA cumulative condition 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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Section 6005. Priorities (The priorities section is current as of the July SAC meeting. Changes to the text will be inserted into the next draft when DFW and the State Water Board finalize their priorities.)

- (a) In accordance with Water Code Section 79754, the California Department of Fish and Wildlife has determined ecosystem priorities as follows:
 - (1) Promote the recovery of endangered, threatened, and other at-risk native fish species and native fish assemblages through water project operations
 - (2) Restore physical processes and flow regimes to improve native habitats and natural communities to promote the recovery of endangered, threatened and other at-risk native species
 - (3) Enhance commercial and recreational opportunities
 - (4) Reduce the negative impacts of non-native species and natural communities
 - (5) Prevent or reduce negative impacts from in-river structures on anadromous fishes
 - (6) Increase quality and quantity of aquatic and riparian habitat and managed and unmanaged wetlands
- (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 Clean Water Act (CWA) Section 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 and/or clean up 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; and
 - (8) Reduce current or future water demand on the Delta watershed by developing local water supplies.

NOTE: Authority cited: Water Code Section 79754

Reference: Water Code Section 79754

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Section 6006. Relative Environmental Value (The relative environmental value section is current as of the July SAC meeting. Changes to the text will be inserted into the next draft when DFW and the State Water Board finalize their relative environmental value text.)

- (a) In accordance with Water Code Section 79754, the California Department of Fish and Wildlife has determined relative environmental values shall be assessed for ecosystem benefits based on the following, including but not limited to:
- (1) Number of ecosystem and water quality priorities addressed
 - (2) Projects that implement actions in recovery plans and strategies, initiatives and conservation plans
 - (3) Environmental water use efficiency-concurrent benefits, multiple uses of the same block of water
 - (4) The quantitative value of the ecosystem and water quality benefits, along with the spatial and temporal component of those benefits, described using metrics such as flow, volume of coldwater pool, temperature, durations of benefit, floodplain inundation acres, number of recreational days, and species life stage
 - (5) Proximity of projects to areas that are already being protected and managed for ecosystem values
 - (6) The expected magnitude of the measurable benefits; for example, a measurable increase in a population or habitat area; a reduction in water quality contaminant concentrations or reduction in the frequency of exceedance to achieve a water quality benefit.
 - (7) Projects that include clear metrics and performance measures
 - (8) The certainty of achieving the benefits including operational commitments to provide assurances that the benefits will 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 brining the affected water body into compliance.
 - (9) Immediacy of benefits provided. Benefits achieved sooner are preferable to benefits achieved later.
 - (10) Projects that clearly include strategies for climate change adaption and resilience.
- (b) In accordance with Water Code Section 79754, the State Water Resources Control Board has determined relative environmental values shall be assessed for water quality benefits by evaluating each proposed project's specific merits during the technical review phase of application review.

NOTE: Authority cited: Water Code Section 79754

Reference: Water Code Section 79754

Section 6007. Managing Public Benefits

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- (a) The applicant shall demonstrate how the proposed project will be operated to provide the public benefits claimed. The applicant shall submit the following information:
- (1) An operations plan or documentation describing, at a minimum, the following items:
 - (i) How the proposed project will be operated to provide public benefits under a range of hydrologic conditions; and
 - (ii) How operational decisions will be made if conditions fall outside the range of anticipated conditions.
 - (2) A preliminary monitoring, assurances, and reporting plan that, at a minimum, includes the following items:
 - (i) Goals of the monitoring program;
 - (ii) A description of how operations will be monitored and verified;
 - (iii) The physical, chemical, or biological parameters that will be measured;
 - (iv) The location and frequency of measurement;
 - (v) The parties responsible for conducting the monitoring program; and
 - (vi) A listing of funding sources to be used to support the monitoring program.
 - (3) At a minimum, 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 a summary of annual public benefits provided. The reports shall be submitted annually for the useful 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