Working Draft

Guidelines for Submitting Applications for AB 1471 Chapter 8 Funding of Public Benefits

Prepared for

California Water Commission

by

Department of Water Resources

in consultation with

Department of Fish and Wildlife

and

State Water Resources Control Board

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Contents

I. Introduction 4
A. Purpose 4
B. Program websites and contact information 5
C. Usage of Terms 5
D. Definition and Scope of Public Benefits 8
II. Eligibility Requirements 9
A. Agencies or entities eligible to submit an application 9
B. Types of projects eligible for grants or funding 9
1. Types of eligible water storage projects 9
2. Other Eligibility Requirements 10
III. Available Funding and Funding Requirements 11
A. Overview of total authorized program funding 11
B. Maximum grant amounts 11
C. Maximum public share 11
IV. Selection Process 11
A. General Solicitation and Selection Process 11
B. Application Assistance Public Workshops 12
C. Project Evaluation Panel 12
D. Commission Evaluation and Recommendation 12
V. Applicant-Provided Information and Evaluation of Proposed Projects 13
A. Information to be Provided by Applicants 13
B. Scope of Benefit, Cost, and Cost Allocation Information 14
C. Further Guidance on Categorizing and Counting Benefits 14
D. Steps to Quantify Benefits and Allocate Costs 16
VI. Other Required Documents 26
A. Draft feasibility study 26
B. Draft EIS/R 26
C. Draft financial feasibility study 26
D. Operations plan 26
E. Monitoring, Assurances and Reporting Plan 27
VII. Other requirements 27
VIII. Evaluation and Scoring Criteria 27

A. Initial screening to determine whether the application meets the minimum requirements for further consideration 27

B. Review by Project Evaluation Panel 28

C. Evaluation Criteria 28

D. Commission Decision 28

IX. Grant administration details, including contract, or agreement procedures 29

X. Appropriate appendices could include:..... 29

A. Full text of regulation and relevant portions of statute 29

B. Full CDFW and Board documents regarding priorities and relative environmental values 29

C. Description and Screening of Potential Tools and Methods to Quantify Public Benefits of Water Storage Projects 29

D. A listing of useful websites to provide potential applicants with reference materials and guidance 29

I. Introduction

A. Purpose

The purpose of these guidelines is to establish the general process, procedures and criteria that the California Water Commission (Commission) will use to solicit, evaluate, award, and administer grants for public benefits of water storage facilities under Chapter 8 of the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Act). The Act authorized the issuance of $7.12 billion of bonds, of which $2.7 billion would be allocated:

> *for 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.*

The Act directs that the Commission develop and adopt guidelines for project solicitation and evaluation:

> *79706. (a) Prior to disbursing grants or loans pursuant to this division, each state agency that receives an appropriation from the funding made available by this division to administer a competitive grant or loan program under this division shall develop and adopt project solicitation and evaluation guidelines. The guidelines shall include monitoring and reporting requirements and may include a limitation on the dollar amount of grants or loans to be awarded. If the state agency has previously developed and adopted project solicitation and evaluation guidelines that comply with the requirements of this subdivision, it may use those guidelines.*
> *(b) Prior to disbursing grants, the state agency shall conduct three public meetings to consider public comments prior to finalizing the guidelines. The state agency shall publish the draft solicitation and evaluation guidelines on its Internet Web site at least 30 days before the public meetings. One meeting shall be conducted at a location in northern California, one meeting shall be conducted at a location in the central valley, and one meeting shall be conducted at a location in southern California. Upon adoption, the state agency shall transmit copies of the guidelines to the fiscal committees and the appropriate policy committees of the Legislature.*

The Chapter 8 AB 1471 public benefits grant program is designed to encourage water storage projects that provide public benefits in the form of ecosystem, water quality, flood control, emergency response, and recreation benefits for Californians. These Guidelines provide background information on general procedures for the quantification of public benefits, including optional quantification methods that applicants can use. The Guidelines are intended to form part of the solicitation package for grant applications. Two other documents also address the quantification of benefits:

1) Pursuant to §79750, the Commission is developing, by regulation, methods for quantification and management of public benefits. The regulation will define standards and procedural steps for quantifying benefits.

2) "Description and Screening of Potential Tools and Methods to Quantify Public Benefits of Water Storage Projects" is a longer description of the principles underlying the

monetary quantification of public benefits. It provides additional information on specific studies, methods, and data that could be used to quantify benefits.

B. Program websites and contact information

https://cwc.ca.gov/Pages/Home.aspx

C. Usage of Terms

The following terms are used consistently in these guidelines:
Accounting perspective. The group of people whose benefits are being counted in an analysis.

Act. Chapter 8 of the Water Quality, Supply, and Infrastructure Improvement Act of 2014.

Alternative cost. The cost of a different project or action that provides at least the same level of physical benefit as the proposed project.

Applicant. The agency or group that is submitting information to the Commission and requesting funding for public benefits.

Application. The package of information submitted by an applicant in support of its request for funding for public benefits.

Avoided cost. Any cost that would not be incurred as a result of implementing the proposed project, i.e., a cost that would be incurred in the without project condition that would not be incurred with the proposed project.

Base Year. The common year for displaying monetized benefits and costs [tentatively 2015].

Benefit. The net change in a good or service provided by a project. It may be expressed as a physical benefit or a monetary benefit. The net change expressed by monetary benefits does not include project costs but does include any other costs imposed on or paid by Californians.

Benefit Transfer. A method of estimating a monetary benefit using benefits estimated from studies done in a different location.

CALFED Bay-Delta Program. The program described in the CALFED Record of Decision dated August 28, 2000.

CDFW. The California Department of Fish and Wildlife, formerly known as the California Department of Fish and Game.

Commission. The California Water Commission.

Cost. Costs are the value of resources and materials required for a specified economic activity. Costs for water storage projects typically include capital, operations, maintenance, and replacement costs.

Cost effective. A proposed project is cost effective if no other action or combination of actions can provide at least the same levels of physical benefits at substantially lower cost.

Delta. The Sacramento-San Joaquin Delta, as defined in California Water Code §12220.

Development condition. The facilities in place, border levels of water and land use, and other factors that are held constant in a water balance model to determine how hydrologic variability affects water levels, flows, and supplies. Normally expressed as a year, for example, 2020.

Discount rate. The annual rate at which projected future real benefits and costs are reduced relative to the present.

Discounting. The process by which benefits and costs that occur at different times during a planning horizon are adjusted to account for society's preference for enjoying benefits sooner rather than later.

DWR. The California Department of Water Resources.

Fund. The portion of proceeds from bond sales authorized by the Act and identified in Chapter 8 as available to pay for public benefits of water storage projects.

Hedonic pricing. A method of valuing attributes of a good or resource, typically real property, using an analysis of observed market prices.

Hydrologic period. The period of recorded precipitation and inflows used to develop a hydrologic probability distribution for a water balance model.

Hydrologic time step. The time over which measures in a water balance model are calculated; usually daily, monthly, or annually.

Joint cost. The share of project cost that cannot be attributed to any single purpose; usually, the total cost less the sum of separable costs for all project purposes.

Monetize. To convert a physical benefit into a monetary benefit.

Monetized, or Monetary, benefit. The dollar value of the estimated or expected level of public or non-public benefit provided by a proposed project. Monetized benefits include net cost savings, net revenues to sellers or producers, and willingness to pay above price actually paid by users or consumers.

Non-public benefit. A benefit that does not fall within one of the five categories defined in §79753 of the Act. Non-public benefits may nevertheless be paid for by a local, state, or federal agency.

Non-use values. Monetary values that people claim for a good even though they have no intention of consuming, viewing or otherwise using the good.

Opportunity cost. The value of other goods and services that are given up by using a resource for a particular purpose. The benefit that is foregone, the benefit of the next best use is the opportunity cost.

Panel. The project evaluation panel appointed by the Commission to review applications and advise it on the projects' eligibility and quantification of public benefits.

Physical benefit. The amount of benefit provided in physical units: for example, numbers of fish, acre-feet of water, acres of habitat or flooding, numbers of boaters, or concentration of chemicals in water.

Planning horizon. The construction period plus the expected life of a project, in years. The expected life of water storage projects is normally assumed to be not greater than 100 years.

Proposed project. The specific water storage project providing the public benefits for which funding is being requested.

Public benefit. A benefit that falls within one of the five categories defined in the Act (Water Code §79753) and is eligible for consideration for State funding by the Commission. The scope of public benefits is further clarified in section I.D. below.

Real. When used to describe a price, cost or value, this means free of or adjusted for inflation. Dollar values are often adjusted for inflation to reflect a common base year.

Regulation. The proposed regulation on methods for quantifying and managing public benefits that the Commission is required to develop and adopt (Water Code §79754).

Remaining amount of physical benefit. The amount of physical public benefit that remains to be valued after accounting for avoided costs.

Remaining benefit. In a cost allocation, for each benefit category, the quantified benefit minus the separable cost allocated to it.

Return on investment. Net public benefits for Californians in comparison to the public costs of obtaining the benefits. Net public benefits are monetized public benefits, less any unmitigated adverse effects on public benefits, plus a consideration for non-monetized benefits, as determined by the commission's review.

Risk. Variability or chance that can be represented by a probability distribution, usually because there is a historic record.

Separable cost. The share of total cost that is clearly attributable to a proposed project purpose or beneficiary, usually estimated as the project's total cost minus what the project would cost if the purpose or beneficiary were excluded.

State Water Board. The California State Water Resources Control Board.

Travel cost method. A statistical method to estimate the value of recreation use for a recreation site based on visitation and the travel costs incurred to visit the site.

Water Code. California Water Code.

Willingness to pay. The maximum monetary value of other goods and services that people would be willing to give up to obtain or enjoy more of a specified good or service.

Without project condition. The without-project condition is the most likely status of resources, economy, development, and demographic conditions expected in the future in the absence of a proposed project.

D. Definition and Scope of Public Benefits

"Public Benefit" means an ecosystem, water quality, flood control, emergency response, or recreation benefit as defined and qualified by the Act. From §79753:

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

These definitions are clarified in CCR §zz (the proposed regulation) as follows:

1) Ecosystem improvement benefits must be the result of an expected contribution to restoration of aquatic ecosystems and native fish and wildlife;
2) Water quality changes that contribute to restoration of aquatic ecosystems and native fish and wildlife, including those ecosystems and fish and wildlife in the Delta, are classified as ecosystem improvement benefits. Any other benefits from water quality improvements may be considered water quality benefits under this section;
3) Flood control benefits are reduction in flood damages, costs and losses;
4) Emergency response benefits include use of stored water to reduce water supply losses and water quality costs caused by Delta levee failures, and benefits from improved ability to maintain water supply following natural or man-made disasters.
5) Only outdoor recreation benefits that occur on or adjacent to the proposed project, or that result from stream flow or reservoir surface area improvements caused by the project's operation, or system reoperation, are eligible.

In these guidelines, public benefits are benefits for California residents and for California lands and businesses regardless of the residence of their owners.

II. Eligibility Requirements

A. Agencies or entities eligible to submit an application

§79712 of the Act defines the public agencies and other organizations eligible to apply for and receive funds:

> *Eligible applicants under this division are public agencies, nonprofit organizations, public utilities, federally recognized Indian tribes, state Indian tribes listed on the Native American Heritage Commission's California Tribal Consultation List, and mutual water companies. To be eligible for funding under this division, a project proposed by a public utility that is regulated by the Public Utilities Commission or a mutual water company shall have a clear and definite public purpose and shall benefit the customers of the water system and not the investors.*

Under §79759 of the Act, certain joint powers authorities may apply for and receive funds:

a) *The funds allocated for the design, acquisition, and construction of surface storage projects identified in the CALFED Bay-Delta Record of Decision, dated August 28, 2000, pursuant to this chapter may be provided for those purposes to local joint powers authorities formed by irrigation districts and other local water districts and local governments within the applicable hydrologic region to design, acquire, and construct those projects.*
b) *The joint powers authorities described in subdivision (a) may include in their membership governmental partners that are not located within their respective hydrologic regions in financing the surface storage projects, including, as appropriate, cost share participation or equity participation. Notwithstanding Section 6525 of the Government Code, the joint powers agencies described in subdivision (a) shall not include in their membership any for-profit corporation or any mutual water company whose shareholders and members include a for-profit corporation or any other private entity. The department shall be an ex-officio member of each joint powers authority subject to this section, but the department shall not control the governance, management, or operation of the surface water storage projects.*
c) *A joint powers authority subject to this section shall own, govern, manage, and operate a surface water storage project, subject to the requirement that the ownership, governance, management, and operation of the surface water storage project shall advance the purposes set forth in this chapter.*

B. Types of projects eligible for grants or funding

1. Types of eligible water storage projects

From §79751, projects for which the public benefits are eligible for funding under this chapter consist of only the following:

a) *Surface storage projects identified in the CALFED Bay-Delta Program Record of Decision, dated August 28, 2000, except for projects prohibited by Chapter 1.4 (commencing with Section 5093.50) of Division 5 of the Public Resources Code.*
b) *Groundwater storage projects and groundwater contamination prevention or remediation projects that provide water storage benefits.*
c) *Conjunctive use and reservoir reoperation projects.*
d) *Local and regional surface storage projects that improve the operation of water systems in the state and provide public benefits.*

2. Other Eligibility Requirements

a) Proposed projects are subject to Section 11590

Any project constructed with funds provided by this chapter shall be subject to §11590 of California Water Code, which states:

> *The department has no power to take or destroy the whole or any part of the line or plant of any common carrier railroad, other public utility, or state agency, or the appurtenances thereof, either in the construction of any dam, canal, or other works, or by including the same within the area of any reservoir, unless and until the department has provided and substituted for the facilities to be taken or destroyed new facilities of like character and at least equal in usefulness with suitable adjustment for any increase or decrease in the cost of operating and maintenance thereof, or unless and until the taking or destruction has been permitted by agreement executed between the department and the common carrier, public utility, or state agency*

b) Ecosystem benefits must account for at least 50 percent of all public benefits for which funding is requested

Ecosystem improvement benefits must constitute at least 50 percent of total public benefits requested for AB 1471 funding. If non-ecosystem public benefits are more than ecosystem public benefits, then the difference is not eligible for AB 1471 funding. (§79756(a))

c) Projects must provide measureable improvements to Delta Ecosystem

A proposed project will not be funded unless it is expected to provide measurable improvements to the Delta ecosystem or to the tributaries to the Delta. (§79752)

d) The qualifying public benefits must be cost-effective

The package of public benefits provided by the proposed project cannot be provided by some other means at substantially lower cost. (§79750(b))

e) Projects must advance Delta objectives

The proposed project must, as determined by the Commission, restore ecological health and improve water management for beneficial uses of the Delta. (§79755(5) (B))

III. Available Funding and Funding Requirements

A. Overview of total authorized program funding

The grants program authorized by Chapter 8 uses bond funds from Proposition 1, which authorized the Legislature to appropriate $2,7000,000,000 for funding of public benefits of water storage projects.

B. Maximum grant amounts

[Placeholder if Commission wishes to place upper limit on single grant awards.]

C. Maximum public share

§79756(a) of the Act states:

> *The public benefit cost share of a project funded pursuant to this chapter, other than a project as described in subdivision (c) of Section 79751, may not exceed 50 percent of the total costs of any project funded under this chapter.*[1]

For purposes of calculating this 50 percent limit, all costs are considered, including capital, operations, maintenance, and replacement costs, all discounted to the beginning of the planning horizon.

For projects other than conjunctive use and reservoir reoperation projects, applicants must obtain private or public funds from other sources because only 50 percent of the cost of a proposed project can be paid with Chapter 8 funds. The competitive awards process will consider the certainty of other funding sources to evaluate the certainty that the proposed project will be built and operated and that the public benefits will actually be achieved.

IV. Selection Process

In consultation with CDFW, the State Water Board, and DWR, the Commission developed and adopted methods for quantification and management of public benefits by regulation, [CCR reference here]. The regulation includes the priorities and relative environmental value of ecosystem benefits as provided by CDFW and the priorities and relative environmental value of water quality benefits as provided by the State Water Board.

A. General Solicitation and Selection Process

The general process for soliciting applications will include public announcement, workshops to provide additional information and guidance to potential applicants, preparation and submission

[1] Projects described in subdivision (c) of §79751 are conjunctive use and reservoir reoperation projects.

of applications, review by a project evaluation panel, review by the Commission, a ranking based on the expected return for public investment as measured by the magnitude of the public benefits provided, a recommendation for funding, a public hearing to receive comments on the draft findings and funding recommendation, and a presentation of final findings and a funding recommendation for public benefits to the Legislature.

B. Application Assistance Public Workshops

A series of public workshops will be held to familiarize potential applicants with the application requirements and process.

C. Project Evaluation Panel

The Commission will appoint and maintain a project evaluation panel (panel) composed of technical experts from DWR, CDFW, the State Water Board, academic institutions, and/or private industry.

1) The panel will review the information provided by each applicant and advise the Commission on: the completeness of its application and the merits of each proposed project's request for public funds; the soundness of its analysis of public benefits; the relationship of the public benefits to the priorities and relative environmental values provided by CDFW and the State Water Board; and the adequacy and merits of the proposed plans for operations, monitoring, verification, and management of public benefits.
2) The panel may request additional information from an applicant if the proposed project appears potentially eligible but additional information is needed to evaluate the merits of the project.
3) Once an application package is complete (including additional information requested by the panel), the panel shall provide a written evaluation and recommended score to the Commission.

D. Commission Evaluation and Recommendation

For each application, the Commission will:

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

Based on when applications are received and at its discretion, the Commission may hold a hearing and submit recommendations for more than one application at a time.

V. Applicant-Provided Information and Evaluation of Proposed Projects

A. Information to be Provided by Applicants

Applicants shall submit a package of materials that includes:

1) A description and quantification of public benefits associated with the proposed project prepared in compliance with §zz.3 (may be included as a component of the feasibility study below).
2) Draft environmental documentation that is or has been available for public review.
3) An operations plan, and a monitoring, assurances and reporting plan as described in §zz.6.
4) A feasibility study for the proposed project that includes the following elements:
    a) Project purposes, including any public and non-public benefits the proposed project is designed to provide.
    b) Project description, including facilities and operations and relationships with existing facilities and operations.
    c) All proposed project costs, including replacement costs, and operations costs consistent with the operations plan, and costs of mitigation for any adverse environmental consequences identified in the draft environmental documentation.
    d) Demonstration of technical feasibility consistent with the operations plan, including a description of data and analytical methods, the hydrologic period, development conditions, hydrologic time step, and water balance analysis showing, for the with- and without-project condition, all flows and water supplies relevant to the benefits analysis.
    e) Description and quantification of all proposed project benefits, including public benefits and non-public benefits, consistent with the operations plan using physical measures and, where possible, monetary benefits. Proposed project benefits must be displayed as expected average annual values for each year of the planning horizon. Some ecosystem benefit must be quantified.
    f) A complete benefit-cost analysis showing benefits and costs to the State and its residents. A benefits-based allocation of costs sufficient to demonstrate that the project and the request for funding of public benefits comply with Water Code §79756 and 79757.
    g) Financial analysis showing that sufficient funds will be available from public (including the funds requested in the application) and non-public sources to cover the construction and operation of the project over the planning horizon.
5) A statement that the proposed project is cost-effective in that the proposed package of public benefits cannot be provided by any other means at a substantially lower cost.
6) A list of supporting studies that have been or will be completed.

7) A list of required permits and notices, and their status, showing that each of these has been or will be completed.
8) Letters of commitment must be submitted verifying that the governing boards of entities receiving at least 75 percent of the non-public benefits have voted to pay for their allocated cost share.
9) A description of how the public benefits address the priorities and relative environmental values of ecosystem and water quality benefits summarized in §zz.4.

B. Scope of Benefit, Cost, and Cost Allocation Information

Chapter 8 states:

> §*79756. (a) The public benefit cost share of a project funded pursuant to this chapter, other than a project described in subdivision (c) of Section 79751, may not exceed 50 percent of the total costs of any project funded under this chapter.*

and:

> §*79755.(a)(2) The department has entered into a contract with each party that will derive benefits, other than public benefits, as defined in Section 79753, from the project that ensures the party will pay its share of the total costs of the project. The benefits available to a party shall be consistent with that party's share of total project costs.*

Together, these terms require that:

1) All benefits, not just the public benefits, should be quantified, and they must be quantified in a way to support cost allocation. These guidelines do not provide methods for quantification of the non-public benefits, but other guidance is available;[2]

2) All proposed project cost information must be provided;

3) Proposed project costs must be allocated to benefit categories;

4) Costs allocated to non-public benefit categories (e.g., water supply, hydropower) must be further apportioned to parties receiving the benefits, to the extent needed to demonstrate a commitment for paying the non-public share of costs, as required by §79757(a)(3).

C. Further Guidance on Categorizing and Counting Benefits

The following guidance regarding public benefit definitions is provided for quantification purposes:

1) The five public benefit categories may include some benefits that are normally regarded as non-public. For example, private landowners or water users may receive a share of a public benefit, such as water quality improvement or flood damage

[2] See, for example, DWR's Economic Analysis Guidebook, http://www.water.ca.gov/economics/guidance.cfm

reduction. Nevertheless, any benefit that is one of the five public benefit categories is eligible for public funding.

2) Ecosystem benefits must be at least half of the total public benefits funded, so ecosystem benefits must be differentiated from other public benefits. Any benefit that is directly caused by a physical ecosystem benefit (defined in the Act as "restoration of aquatic ecosystems and native fish and wildlife") can be regarded as an ecosystem benefit.

   Below are two contrasting examples, one in which the public benefit can and one in which it cannot be assigned to the ecosystem benefit category:

   a) Stored water is released for ecosystem improvement, and the resulting "restoration of aquatic ecosystems and native fish and wildlife" results in increased salmon population. The increase in population causes salmon sport fishing to improve. This benefit can be assigned to ecosystem improvement or recreation.

   b) Stored water released for ecosystem improvement incidentally improves Delta water quality for all uses. To the extent that aquatic ecosystems and native fish and wildlife benefit, there is an ecosystem benefit. Other water quality benefits are not caused by "restoration of aquatic ecosystems and native fish and wildlife" so the other benefits are water quality.

3) For recreation benefits, outdoor recreation activities associated with natural water bodies such as rivers, streams, lakes, wetlands, and the ocean are eligible for funding, to the extent they are affected by a proposed project. Benefits from outdoor recreation at man-made reservoirs should be included if the reservoirs are directly affected by the proposed project and are open to the public. Recreation benefits from water supply provided for golf courses, swimming pools, or private, water-based theme parks do not qualify for Chapter 8 funding because these are water supply benefits. Recreation benefits that result from water delivered through a municipal water supply system, such as to a public park that is not itself part of the proposed project, are water supply benefits and do not qualify for Chapter 8 funding.

4) The Act also requires that public benefits be differentiated from non-public benefits. The simple rule is to assign the benefit to the physical benefit category that changes relative to the without-project condition. For example:

   a) Stored water is released for ecosystem improvement, and the released water incidentally increases urban water supply relative to the without-project condition. In this case, the urban water must be assigned to water supply benefit, not to ecosystem improvement.
   b) Stored water is released for Delta water quality improvement, but additional Delta exports enabled by the water quality improvement leave Delta water quality at without-project levels. The additional exports are a water supply benefit and cannot be assigned as a water quality public benefit.

c) Refuge water supply provides an increase in wetland habitat relative to the without-project condition. The benefit should be assigned to ecosystem improvement, not to water supply.
d) Water provided for refuge water supply replaces water that is currently provided by a water transfer. There is no increase in wetland habitat, and therefore no "restoration of aquatic ecosystems and native fish and wildlife" relative to the without-project condition. However, the refuge water supply replaces a water supply that is now available for another use. If the other use is for urban or agricultural water supply, then the net effect of the change is a water supply benefit.

The following will not be allowed as public benefits:

1) Cost savings or benefits claimed that are actually transfers from other Californians (the benefits to one set of Californians are offset by costs to other Californians),
2) Benefits that accrue to non-Californians, including businesses not operating in California, or to land or property not located in California.

D. Steps to Quantify Benefits and Allocate Costs

In general, to support a public benefit claim for a proposed project, an applicant shall:

1) Define project assumptions and without project conditions.
2) Quantify and document the physical benefit.
3) Identify avoided costs.
4) Identify feasible alternatives and alternative costs.
5) Estimate willingness to pay values for each public benefit.
6) Identify and apply the preferred measure of benefit for each public benefit type.
7) Discount and display monetized benefits.
8) Provide project costs and a cost allocation and cost sharing analysis.
9) Document the process, data sources and calculations.

These steps are detailed below:

[NOTE TO READER: the guidelines may include additional templates or example tables to illustrate desired ways to organize and display information described below.]

Step 1. Define project assumptions and without-project conditions

This step includes information about the proposed project, its expected benefits, and how those benefits will be measured. Generally, this information will be developed within environmental documentation and feasibility studies that applicants would provide as required by steps V.A.2

and V.A.4 above. However, monetary information may need to be updated to current [tentatively 2015] dollars.

The analysis should use the following assumptions:

a) The main accounting perspective should be California, including all residents, businesses operating in the State, property located in the State, and all local and State government agencies. If federal cost-sharing is expected, an analysis from the national accounting perspective is also suggested.
b) The planning horizon should be equal to the period of construction plus the expected useful life of the project.
c) The without-project condition should describe the future economic development and demographic conditions of areas affected by the project and the amounts and qualities of affected resources, especially water and ecosystem resources, if the proposed project is not built and operated. Future projects that are currently planned and have environmental documentation, if needed, should be included.
d) All monetary information must be expressed in a common base year; monetary data from different years must be updated to current dollars using the update factors in Table V-1. More sector-specific inflation updating can be used where justified.
e) The real discount rate for the California analysis must be 6 percent *[or a different rate, if approved by the Commission]*. Table V-2 provides discount factors to be used for adjusting future monetized benefits to base year values. Excel tables are also available at [link to be provided] to use for discounting, including for benefits occurring farther in the future than shown in Table V-2.
f) The hydrologic period must be representative of the known history of hydrology in the proposed project region. If representative data are not available, synthetic hydrology may be developed and used.
g) For hydrologic analysis, a time step must be selected that is appropriate for the type of public benefit being claimed. The largest acceptable time step is annual. A monthly time step may be appropriate for most types of physical benefits, but some benefit types such as flood damage reduction may require a shorter time step.

Table V-1 – Update Factors (To be modified based on when the PSP is issued)	
If Costs or Benefits Estimated for:	Update to 2015 by Multiplying by:
2009	1.14
2010	1.12
2011	1.09
2012	1.07
2013	1.04
2014	1.02
2015	1.00

Table V-2 – Discount Factors (To be modified based on when the PSP is issued)									
2015	1.000	**2025**	0.558	**2035**	0.312	**2045**	0.174	**2055**	0.097
2016	0.943	**2026**	0.527	**2036**	0.294	**2046**	0.164	**2056**	0.092
2017	0.890	**2027**	0.497	**2037**	0.278	**2047**	0.155	**2057**	0.087
2018	0.840	**2028**	0.469	**2038**	0.262	**2048**	0.146	**2058**	0.082
2019	0.792	**2029**	0.442	**2039**	0.247	**2049**	0.138	**2059**	0.077
2020	0.747	**2030**	0.417	**2040**	0.233	**2050**	0.130	**2060**	0.073
2021	0.705	**2031**	0.394	**2041**	0.220	**2051**	0.123	**2061**	0.069
2022	0.665	**2032**	0.371	**2042**	0.207	**2052**	0.116	**2062**	0.065
2023	0.627	**2033**	0.350	**2043**	0.196	**2053**	0.109	**2063**	0.061
2024	0.592	**2034**	0.331	**2044**	0.185	**2054**	0.103	**2064**	0.058

The analysis should take steps to ensure that standard economic and hydrologic accounting conventions are followed, in particular:

a) There must be no double-counting of benefits.
b) The applicant must make a good faith effort to present the most likely without-project conditions.
c) All public and private costs required over the planning horizon to obtain a benefit must be counted. For example, for recreation, private costs of providing recreation and participating in recreation activities should be included.
d) If a benefit provided by the proposed project imposes costs on some other group of Californians, these costs must be estimated, or at minimum described, for purposes of determining the net public benefit.

e) Water supply or flow calculations should be based on mass balance and should include expected losses.

Step 2. Quantify and document the physical benefits

Physical benefits are the expected measurable accomplishments of projects in physical units. Physical quantification is required for monetary quantification. Preferred physical benefit measures for the types of public benefits to be provided should be identified, and the potential methods and models available to obtain the measures should be identified, evaluated and improved if needed to fit the location, timing and beneficiaries of the proposed project.

Physical benefits should be based on forecast measures of average project accomplishments in each year of the planning horizon relative to the without-project condition. The averaging should account for the probability distribution of hydrology in each future year of the planning horizon. For example, hydrology and economic analysis might be performed for two or more present or future development conditions (say 2020 and 2060) and average physical and economic benefits over a hydrologic distribution estimated at each if those future conditions. Benefits in intermediate and future years of the planning horizon should be estimated by interpolation and extrapolation over the full planning horizon, but major events such as important new storage or conveyance should be accounted for. Figure 1 shows how a hydrologic/water delivery model might be used to complete a planning horizon analysis.

Examples of physical benefits can include:

a) For ecosystem, the types and amounts of environmental amenities provided, such as the types of species and their increased numbers, habitat units restored or protected, acreage or stream miles of habitat or floodplain improved, restored or protected, or amount of water or flow provided.
b) For water quality, the types (constituents) and amounts of water quality improvement provided, and the amount of water treated or improved; for example, mg/l of salinity per acre-foot (AF), for the total AF per year treated.

Placeholder: Figure 1. Relationship between hydrologic model and planning horizon with Project X in the without-project condition beginning in 2030.

c) For an ecosystem or water quality improvement that also saves or enables water supply, the amount of water supply saved per year on average.
d) For flood control, the amount of land and types of land uses, the population, numbers and types of structures and equipment protected from flooding, provided for different flood events, each with associated probabilities, and the probability of levee or facility failure, with- and without-project. Flood maps should be provided showing area flooded without project for the different flood events.
e) For emergency response, the type of emergency targeted, and the types and amount of costs that would be avoided, and the expected frequency of emergency events.
f) For recreation, water features such as surface area or flow that provides the benefit, and a complete description of associated recreation facilities, including capacity information.

The documentation of physical benefits should:

a) Provide a list of project objectives including the public and private benefit categories that the project provides and showing a breakdown of benefit subtypes and possible measures for each subtype within each category.

b) Provide a description of the storage project that includes location, storage volume, sources and maximum rate of storing water, expected losses from storage, facilities and maximum rates for withdrawing water, a description of how the project will be operated to provide public and private benefits, and other information needed to quantify physical benefits as described below.

c) Provide a summary of with- and without-project conditions over the planning horizon, including related facilities and programs expected to be in place, other water supplies, and other conditions related to the five public benefits categories.

d) Provide a water balance and storage yield analysis that includes the following:

   i. A description of methods, including the hydrologic period, development condition(s), hydrologic time step, and planning horizon,
   ii. A water balance analysis comparing without-project to with-project conditions, showing all flows and water supplies relevant to the public benefits analysis, and the quantities for each named measure for each public benefit subtype, and
   iii. A summary of the water balance analysis describing how the proposed use or operation of the storage facility will provide each quantity of public benefit.

e) If the most direct measure of a physical public benefit cannot be quantified, quantify other physical changes resulting from the project that directly lead to the benefit. For example, if fish population changes cannot be estimated, estimate changes in habitat conditions or the volume of flow provided for fish habitat. Explain any lack of physical benefit measures for a given benefit type.

f) Provide a summary of the physical benefits analysis, showing the expected annual average amount to be provided in each year of the planning horizon. All benefits should be displayed annually over the planning horizon in the year in which they occur.

Step 3. Identify avoided costs

For each public benefit category claimed, provide a calculation of any annual average cost saving (without-project minus with-project), if any, that is caused by the provision of public benefits, indicating the year(s) that the saving occurs during the planning horizon.

Avoided costs may include, for example, other water supply costs, water treatment costs, salinity damage costs, flood damage costs, energy, labor or management costs, or cost savings because other actions or projects are delayed, cancelled, or reduced in size. When avoided costs are claimed, it is important to document, using existing, published plans, if possible, that the cost to be avoided would occur in the without-project condition future. Out-of-date cost information

used to estimate avoided costs should be escalated forward to the base year as needed using the factors in Table V-1 or other sources if justified.

If the proposed project will cause another project to be delayed, that benefit is the change in present value of costs of the delayed project.

If the proposed project will cause another project to be reduced in size, the cost savings relative to costs in the without-project condition are a benefit. In general, all avoided project costs such as construction, operations, repairs, maintenance and replacement costs should be valued using market prices for materials, energy, and labor, and these prices should also be used to estimate alternative costs and proposed project costs in Steps 4 and 8, respectively, below. Wholesale or retail water prices will generally be accepted as appropriate unit benefits for water supply savings as long as these prices reflect cost of service. Monetary benefits must be net of total costs, not just private costs, of providing the water supply.

The avoided cost may be an action that has a public benefit and the proposed project causes this action, its cost, and its public benefit to be avoided. The analysis can later assign an additional benefit, but only to the net amount of public benefit that remains. For example, suppose a proposed project will produce 100 units of a public good, and the cost of another project producing 30 units of the public good is avoided. The avoided cost is a public benefit, but only 70 units of physical benefit remain to be valued using some other technique. This is the remaining amount of public benefit. To avoid double-counting, the amount of additional monetary benefit that can be claimed by the methods of alternative cost or willingness to pay as described below must be based on the remaining amount of public benefit.

Step 4. Identify feasible alternatives and alternative costs

Step 4a. *For each public benefit category claimed, if there is a remaining amount of public benefit from Step 3, provide a discussion of the feasibility of stand-alone alternatives (i.e., projects, programs, and/or actions), and estimate the cost of the least-cost stand-alone alternative means of providing the remaining amount.*

This step provides the information needed to see if alternative cost can be used as a measure of benefit in Step 6. Alternative cost should be used as a measure of benefit if (1) a viable alternative to the proposed project can provide about the same level of physical public benefit, and (2) the alternative's cost is less than the willingness to pay for the physical benefits (from Step 5 below). That is, monetary benefits cannot exceed the cost of achieving the same physical benefits using other feasible means.

This step requires a consideration of each alternative's feasibility. The alternative's feasibility should be considered under the same criteria as the proposed project (i.e., the same baseline assumptions and general cost estimation procedures). However, the level of effort required for the alternative feasibility investigation can be less than that required for the proposed project itself.

Step 4b. *Evaluate the feasibility of, and estimate the cost of, the least-cost alternative for providing the same package (types and amounts) of the total amount of all public benefits.*

Step 4b is intended to fulfill the cost-effectiveness mandate of §79750(b) of the Act. The alternative package is a single project or multiple projects that, taken together, provide the same total amount of all public benefits. The package may include the stand-alone alternatives from Step 4a, but sized for the total amount of water and other physical benefits claimed in physical benefits item 6) above. Out-of-date cost information used to estimate alternative costs should be escalated forward to the base year as needed using the factors in Table V-1, or other sources if justified.

If a feasible alternative package exists, report its cost. If no feasible alternatives for providing all the public benefits exist, describe the analysis and criteria used to make that determination.

Step 5. Estimate willingness to pay values for each public benefit

Develop and show, if possible, the following values for each public benefit type for each remaining amount of public benefit from Step 3. If not possible, explain why.

a) **Ecosystem Improvement.** For water quality and recreation benefits caused by the ecosystem improvement, see 5b. and 5c. below. (Note: these can be classified as "ecosystem improvement" even though water quality and recreation methods are used to quantify them.) For ecosystem services sold in competitive markets, use market price as the basis for willingness to pay, and subtract additional private and public costs required to produce and market the services. If market prices do not reflect opportunity costs, develop and apply another approach that does reflect opportunity costs. For other ecosystem services that enhance property values, estimate the increase in property values associated with the services using land price or hedonic pricing and convert to an annual value. For non-use values, survey-based methods should be designed around the proposed project's physical benefits. Benefit transfer can be used if necessary. Non-use benefits should be split into California and non-California benefits according to population shares. Report any non-use values separately.

b) **Water Quality.** For urban water salinity in the south coast and south bay area, existing models based on avoided damage cost are preferred. For agricultural salinity, models that estimate the cost of additional water application for leaching, with crop yield reduction beyond established salinity thresholds, are preferred. For other subtypes, use hedonic pricing (or land value as the second-best method) to obtain the share of benefit obtained by adjacent properties, revealed preference or survey methods for improved household water quality, or benefit transfer if necessary. For water quality, unit values may be available from sources such as the Beneficial Use Values Database (BUVD), maintained at the University of California Davis, which provides many studies that might be used for benefit transfer.

c) **Recreation.** A use-estimating model is required. Either the revealed preference method or benefit transfer based on use at similar regional projects is preferred. Market prices or hedonic pricing may provide partial benefits. Survey methods and the USACE unit-day value method are the second-best approaches for valuing use. Use may be limited by capacity in high-demand periods. The Benefit Transfer and Use Estimating Model Toolkit (Toolkit), available through the Agricultural and Resource Economics Department, Colorado State University, provides a database of potentially useful studies.

d) **Flood Damage Reduction.** The preferred method is to use established models to estimate avoided damage and avoided costs. For large projects (i.e., more than $10 million capital cost), use HEC-FDA or HAZUS-MH level 2. For smaller projects, use DWR's F-RAM or follow a similar Expected Annual Damage (EAD) algorithm.

e) **Emergency Response.** The willingness to pay value for reduced cost of a Delta seismic event should be based on the avoided costs of export reductions and increased salt exports. For other events, use the avoided cost of emergency services and other avoided costs as appropriate.

Step 6. Identify and apply the preferred measure of benefit for each public benefit type

Provide the following for each public benefit type:

a) If the alternative cost was quantified under step 4a above, compare these values to the willingness to pay values from step 5. Usually, the benefit for the individual public benefit type is the smaller of these two values, plus any avoided cost from step 3.

b) If no monetary quantification is possible, either through alternative cost, avoided cost, or willingness to pay methods, or if such monetary quantification only captures a portion of the benefits, provide a careful description of how the physical benefits that were not monetized will provide monetary benefit.

Step 7. Discount and display monetized benefits

Provide a quantitative analysis that sums and discounts all annual benefits over the planning horizon using the real discount rate from Step 1.

Monetized benefits must be displayed in real dollars, by discounting future benefits to the base year. If monetized benefits were estimated for a year previous to the base year, those benefits should be escalated to base year price levels using the update factors shown in Table V-1. Real monetized benefits per unit of physical benefit may be escalated over the planning horizon only with strong justification.

Step 8. Provide proposed project costs and a cost allocation and cost sharing analysis

Step 8a. *Develop and display project and associated costs.* Detailed project cost estimates should be provided for each year of the planning horizon. Project costs should include construction, interest during construction, operating, maintenance, and replacement costs. In addition, non-project costs that will need to be paid by each participant to obtain any benefits claimed should be reported. Out-of-date cost information used to estimate project costs should be escalated forward to the base year as needed using the factors in Table V-1, or using other documented sector-specific inflation adjustments. Discount all project costs to the base year.

Step 8b. *Develop a cost allocation and cost-sharing plan.* The public cost share should be determined by a cost allocation technique that apportions total project costs among benefit categories (also called project purposes). The benefit categories are, at a minimum:

1) Ecosystem and non-ecosystem public benefits eligible for funding, up to the five categories defined in the Act.
2) Non-public benefit categories. These will be project-specific, but could include water supply, hydropower production, and transportation.

The cost allocation must include all relevant benefit categories provided by the proposed project. If there is only one type of public benefit and no non-public benefits then no cost allocation is required.

A feasible cost allocation has the following characteristics:

1) Total proposed project costs, including annual operations and maintenance and future replacement costs, are allocated. Total costs for allocation include all capital, operation and maintenance, and replacement costs, discounted to the base year.
2) Costs that could be avoided if a benefit category were removed from the proposed project are allocated to that benefit category. Costs that are not necessary to provide a particular benefit are not allocated to that benefit unless they are joint costs.
3) Costs that are not specific to one particular benefit category (called joint costs) can be allocated among the appropriate benefit categories in more than one way, as long as condition 1) is met, each benefit category's allocated cost is no larger than its estimated benefit, and each beneficiary's share of total project cost is consistent with its benefit.

The separable costs-remaining benefits (SCRB) method of cost allocation is a widely used approach that satisfies these characteristics. It is the standard approach that has been used for federal water projects and for the allocation of State Water Project costs. It is expected that any proposed project that has followed federal or state guidelines for cost allocation as part of its feasibility study can use that information directly for the purposes of this step. An example SCRB cost allocation is provided as Figure 2.

Placeholder: Figure 2. Example Cost Allocation Using Separable Costs Remaining Benefits (SCRB)

For proposed projects that have not already prepared a cost allocation that follows federal or state guidelines, the following steps summarize the SCRB cost allocation:

1) Identify separable costs for each benefit category.

   The separable cost for a benefit category is the amount of the proposed project's cost that is required only to provide that amount of benefit for that benefit category. Some separable costs may be easy to identify, such as costs of a canal that is used only to deliver water supply, or costs of hydropower generation facilities, or the cost of a recreational marina. However, if storage is operated for multiple benefits, detailed engineering studies may be required to develop a project plan and cost that excludes the particular benefit category but that provides the same level of benefits to all other categories.

2) Calculate joint costs.

The joint cost is the total cost less the sum of separable costs for all benefit categories.

3) Calculate remaining benefits for each benefit category.

The remaining benefit for each benefit category is its quantified benefit minus the separable cost allocated to it. The remaining benefit must be zero or positive.

4) Allocate joint costs to each benefit category.

The joint cost is allocated among benefit categories according to their share of total remaining benefits.

5) Calculate total allocated cost for each benefit category.

Each benefit category is allocated its separable cost plus its share of the joint cost

6) For non-public benefits, calculate cost shares for each party receiving benefits.

Once costs are allocated to the non-public benefit categories, individual cost shares must be identified for the parties receiving the non-public benefits. For example, costs allocated to a water supply category would be further divided into cost shares for each agency or other party receiving water supply benefits. The cost shares could be determined using SCRB or another cost allocation procedure. In some cases, cost shares may be dictated by existing contracts or agreements among agencies. However the parties' cost shares are determined, the applicant must provide *"commitments for not less than 75 percent of the non-public benefit cost share of the project"* (§79757(3)).

7) Summarize project costs and cost allocation and display the request for funding of costs allocated for public benefits.

Show proposed cost and benefits shares and demonstrate that the project and the request for funding of public benefits complies with the following conditions:

a) The cost share allocated to all public benefits is no greater than 50 percent of the total project cost, unless the project is a conjunctive use or reservoir reoperation project (§79756 of the Act).
b) At least 50 percent of the funding requested for public benefits must be for ecosystem benefits.

Table V-3 provides an example format for the display of benefits and cost shares (see attached).

Step 9. Document the process, data sources, and calculations

In addition to the numerical and tabular results presented, provide a complete discussion and documentation of claimed public benefits showing linkages to physical benefits, methods, data sources, and assumptions required to develop benefits. The discussion should include:

a) Recent and historical conditions that provides background for benefits to be claimed; for example, recent water shortages, loss of habitat or ecosystem function, and water quality problems.
b) A clear discussion of without-project future conditions should be provided highlighting related actions and costs that are expected (and therefore might be avoided).
c) The applicant should document how monetary benefits were calculated to allow the reviewers to assess the accuracy and reasonableness of the analysis.
d) The application should also include a discussion of any uncertainty about the future that might affect the level of benefits received.

VI. Other Required Documents

Before a proposed project can be considered for funding, the following documents will be required. These need not all be separate documents so long as the listed information is included. For example, if financial feasibility analysis is included as part of the draft feasibility study, no separate financial analysis or study is required. Similarly, if proposed project operations are adequately described in the feasibility study, no separate operations management plan is required.

A. Draft feasibility study

A draft feasibility study must be provided, including a public and non-public benefits study, cost estimates, and a proposed cost allocation for the expected life of the proposed project.

B. Draft Environmental Impact Statement and/or Report (EIS/R)

A draft or final EIS/R must be provided.

C. Draft financial feasibility study

The draft financial feasibility study must document sources for the cost share of construction allocated to non-public benefits, sources for payment of ongoing operations, maintenance, monitoring, repair and replacement costs, planned repayment over time of money borrowed to finance non-public benefits, and commitments for not less than 75 percent of the non-public cost share.

D. Operations plan

The operations plan should show how the proposed project will be operated to provide benefits, especially public benefits. The plan should include how operations would vary under different hydrologic conditions, how operations might change as a result of adaptive management rules if

conditions fall outside the range of anticipated conditions, and how operations will be coordinated with operations of other facilities, if applicable. The operations plan must be consistent with the methods and process used to quantify benefits.

E. Monitoring, Assurances and Reporting Plan

A monitoring, assurances and reporting plan shall be submitted with the application, identifying how operations will be monitored and verified, the physical benefits that will be measured, and the location and frequency of measurement. The applicant shall prepare a list of operational, monitoring, and reporting commitments. This list will be provided to state and federal regulatory and permitting agencies for inclusion, at each agency's discretion, as conditions of or articles in a permit or license. A budget must be included that provides for on-going monitoring and preparation of an annual report that includes summary results from the monitoring of public benefits and shows a comparison of actual operations to those described in the operations plan.

VII. Other requirements

Each applicant must demonstrate that its project meets two specific criteria defined in Chapter 8. The proposed project will not be funded unless it is expected to provide measurable improvements to the Delta ecosystem or to the tributaries to the Delta (§79752). The project must be cost-effective. This means that the package of public benefits provided by the project cannot be provided by some other means at less cost (§79750(b)).

VIII. Evaluation and Scoring Criteria

Review, evaluation, and scoring of applications will be conducted by the Commission, a designated Project Evaluation Panel, and Commission and Department staff. The review process will include the following overall steps:

A. Initial screening to determine whether the application meets the minimum requirements for further consideration

All applicants will have the opportunity to discuss their application with staff at workshops prior to submitting, so it is expected that all applications will meet minimum requirements. The initial eligibility screening will be based on the application package submitted prior to any technical evaluation. Applications that pass the initial screening may, after technical review by the project evaluation panel, still be found to violate one or more of the minimum requirements below:

1) The project and the applicant are eligible to apply for funding.
2) All required studies and information are included.
3) Demonstration that the public benefits and costs as summarized in the application meet the percentage requirements of Chapter 8.
4) Demonstration that the project provides measurable improvement to the Delta ecosystem or tributaries.

5) Demonstration that the package of public benefits proposed by the project is cost effective.

B. Review by Project Evaluation Panel

The Panel described in Section IV.C will review all technical aspects of each application and provide a written summary and scoring for each evaluation criterion. The consensus evaluation and scoring recommendation will be provided to the Commission for its consideration and decision.

C. Evaluation Criteria

The Panel will evaluate each application according to the criteria in the following Table VII-1. The initial category of criteria provides for revision to the eligibility screening, if needed. Based on its technical evaluation, the Panel may identify one or more eligibility criteria from VIII.A that do not actually meet minimum requirements. Each criterion's recommended score will be based on quality of analysis, clarity and level of detail, and if appropriate, the quantitative outcome.

Scoring criteria have different weights intended to highlight those that are specifically mentioned in Chapter 8. The weight on a criterion is multiplied by the score of the criterion to obtain a weighted score.

1) The level of quantified public benefits relative to assigned costs is used to assess the return on public investment, defined as net public benefits for Californians in comparison to the public funding provided to obtain the benefits. The criterion has a weight of xx.
2) The priorities and relative environmental values are included as a key consideration in the quantification of public benefits in Section 79754 of the Act. The criterion has a weight of yy.
3) Other criterion include (other criteria are under discussion).

D. Commission Decision

For each application, the Commission will:

1) Review the information provided in the application and the recommendations and analysis provided by the Panel.
2) After reviewing the recommended scores provided by the expert panel, either adopt those scores, or provide different scores with justification.
3) The Commission can reject any application based on a finding that the application does not meet or exceed a minimum level in any one criterion.
4) Rank applications based on the expected return for public investment as measured by the magnitude of the public benefits provided relative to assigned costs.
5) Rank applications based on the sum of the weighted scores considering all evaluation

criteria.

6) Prepare draft findings and a recommendation for funding. The draft findings shall include an explanation for any revision the Commission makes to the Panel recommended score.
7) Hold a public hearing to receive comments on the draft findings and funding recommendation.
8) Provide its final findings and recommended funding for public benefits to the Legislature.

IX. Grant administration details, including contract, or agreement procedures

X. Appropriate appendices could include:

A. Full text of regulation and relevant portions of statute

B. Full CDFW and Board documents regarding priorities and relative environmental values

C. Description and Screening of Potential Tools and Methods to Quantify Public Benefits of Water Storage Projects

D. A listing of useful websites to provide potential applicants with reference materials and guidance

Table VIII-1 – Example of Possible Evaluation Criteria and Scoring Standards (Note to reader: these are tentative ideas for purposes of discussion)			
Scoring Criteria	Weight	Score	Scoring Standards
Project Eligibility/Minimum Requirements Did the application demonstrate that it met the minimum requirements for eligibility for public funding: • The project and the applicant are eligible to apply for funding • All required studies and information are included • Demonstration that the public benefits and costs as summarized in the application meet the percentage requirements of Chapter 8 • Demonstration that the project provides measurable improvement to the Delta ecosystem or tributaries • Demonstration that the project is cost effective.	NA	Yes/No	Applications found to be deficient after technical evaluation will be eliminated from further consideration or returned to applicant for revision.
Expected Return for Public Investment Scoring would be based on the proposed project's expected return on public investment. Return on investment is defined as net public benefits for Californians in comparison to the public costs of obtaining the benefits. This criterion is suggested by section 79740(b) of the Act.			
Ecosystem and Water Quality Priorities and Relative Environmental Values Scoring would be based on whether and how well the proposed project addresses one or more of the ecosystem priorities and relative environmental values provided by CDFW and the water quality priorities and relative environmental values provided by the Water Board. This criterion is suggested by section 79744 of the Act.			

Table VIII-1 – Example of Possible Evaluation Criteria and Scoring Standards (Note to reader: these are tentative ideas for purposes of discussion)			
Scoring Criteria	Weight	Score	Scoring Standards
Technical Justification/Quality of Analysis Scoring would be based on the technical adequacy of physical and economic benefit description and analysis. Points would be scored based on quality of the analysis and supporting documentation in consideration of the types of benefit claimed. This criterion is suggested to encourage high-quality plans.			
Operations Plan Scoring would be based on the quality of the Operations Plan in terms of describing how the project would be operated under a variety of foreseeable conditions to provide the claimed public benefits. This criterion is suggested by section 79744 of the Act and the resulting regulation, which requires an Operations Plan to support assurances that quantified public benefits will be provided.			
Monitoring, Assurances and Reporting Plan, and List of Operational Commitments Scoring would be based on the quality of the Monitoring, Assurances and Reporting Plan, and the list of Operational Commitments, in terms of how well they assure that quantified public benefits will be provided. This criterion is suggested by section 79744 of the Act and the resulting regulation, which requires a Monitoring, Assurances and Reporting Plan, and a List of Operational Commitments to support assurances that quantified public benefits will be provided.			
Financial Plan and Commitments Scoring would be based on the quality of financial commitments to assure that all proposed cost shares can be provided so that the project can be built and operated as proposed to provide the planned quantifies of public benefits. Also, the amount of federal cost-sharing might be included in this criterion.			

Table VIII-1 – Example of Possible Evaluation Criteria and Scoring Standards (Note to reader: these are tentative ideas for purposes of discussion)			
Scoring Criteria	Weight	Score	Scoring Standards
Ability to Improve System Operations, Reliability and Resiliency Scoring would be based on the expected abilities of the project to improve system operations for public and non-public benefits, to increase flexibility, adaptability, reliability and resiliency, and to respond to climate change. This criterion is suggested by sections 79740(b) and 79741(d) of the Act.			
Other			

Table V-3 – Summary of Public Benefits Quantification					
Public Benefit Category	**Physical Benefit Description**	**Monetized Benefit (PV in $2015)**	**Percent Share of Total Monetized Public Benefits**	**Cost Allocated to the Category (PV in $2015)**	**Cost Share of Total for Project**
Ecosystem Improvement					
Water Quality Improvement					
Flood Control					
Emergency Response					
Recreational Purposes					
Total Public Benefits					
Non-Public Benefits					
Total for Project					