

MAY 2015

California Water Commission
Water Storage Investment Program
Public Workshop

Opening and Welcome

Agenda

- Eligibility Criteria
- Break Out Session: Explore Project Concepts
- Quantifying Public Benefits Presentation
- Facilitated Q&A
- Public Comment

Eligibility Criteria

Water Quality, Supply, and Infrastructure Improvement Act of 2014

Proposition 1 Chapter 8

Proposition 1 continuously appropriates \$2.7 billion to the Commission 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...***”

§79712 Eligible Applicants

- Public agency
- Nonprofit organization
- Public utility
- Federally recognized Indian tribe
- State Indian tribe listed on the Native American Heritage Commission's California Tribal Consultation List
- Mutual water company

§79751 Eligible Storage Projects

- Surface storage projects identified in the CALFED ROD
- Groundwater storage projects
- Groundwater contamination prevention or remediation projects with storage benefits
- Conjunctive use projects
- Reservoir reoperation projects
- Local surface storage projects
- Regional surface storage projects

Measurable Improvements to Delta

§79752

A project shall not be funded pursuant to this chapter unless it provides measurable improvements to the Delta ecosystem or to the tributaries to the Delta.

§79753(a) Public Benefits

- Ecosystem improvements
- Water quality improvements
- Flood control benefits
- Emergency response
- Recreational purposes
- §79756(b) requires at least 50% of the total public benefits funded to be ecosystem improvements



Eligibility Requirements

A project is not eligible for funding unless all of the following conditions are met:

- (1) All feasibility studies are complete and draft environmental documentation is available for public review.
- (2) The commission makes a finding that the project is feasible, and will advance the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta.
- (3) The director receives commitments for not less than 75 percent of the nonpublic benefit cost share of the project.

CWC Sec. 79757(a)

Wild & Scenic Rivers Acts

§79711(e)

...funds authorized pursuant to this division shall not be available for any project that could have an adverse effect on the values upon which a wild and scenic river or any other river is afforded protections pursuant to the California Wild and Scenic Rivers Act or the federal Wild and Scenic Rivers Act.

Potential Major Components of Applications

- Eligible applicant information
- Statement of no impact to Wild and Scenic Rivers
- Public Draft CEQA document (EIR), including but not limited to
 - Project description
 - Project impact analysis
- Final feasibility study documentation, including, but not limited to
 - Description and quantification of public benefits, including supporting models (e.g., water operations) and economic analysis
 - Cost estimate and allocation
 - Feasibility analyses – technical, environmental, economic, financial
- Others to be determined...

Questions?

Breakout Session

Exploration of Project Concepts

Water Storage Investment Program

Framework to Quantify Public Benefits

Methods for Quantification

§79754

In consultation with the Department of Fish and Wildlife, the state board, and the Department of Water Resources, the commission shall develop and adopt, by regulation, [methods for quantification](#) and management of public benefits...

Review Key Requirements for Quantification

- Ecosystem benefits at least 50% of the public benefits funded by the State
- State's public benefit cost share not to exceed 50% of total cost*
- Projects ranked based on expected return for public investment
- Benefits to parties shall be consistent with their cost shares
- Project's public benefits are cost effective

* Does not apply to Conjunctive Use and Reservoir Reoperation projects

Why Monetize Benefits?

- All benefits measured in same unit allows for direct comparison
- Dollar to dollar comparison of benefits to costs
- Provides for a more direct ranking, e.g., return on public investment
- Can account for important differences in timing, location for the same physical benefit

Scope of Presentation/Discussion

- What is the general quantification process being contemplated?
- How will quantification of public benefits be used?
- What are economic benefits and how are they calculated?
- What are project costs?
- How do benefits relate to cost allocation and public funding?

Typical Benefits Quantification/Cost Allocation Method

1. Define future conditions without project
2. Assess future condition with project
3. Calculate physical benefits created by or caused by the project
 - a. Quantify as change relative to without project
 - b. Spread over the project life
4. Estimate the economic value of physical benefits
5. Discount benefits and costs and compare
6. Allocate costs to beneficiaries

What is a Benefit Provided by a Storage Project?

- A product or service provided by the project for which people are willing to pay
 - Normally measurable in physical units
 - Dollar amount people are willing to pay is monetized benefit
- Measured as:
 - A physical change (with-project vs. without-project futures)
 - Converted to a common measurement unit where possible
 - A sequence over the life of the project

Most Physical Benefits of Storage Projects Are Measurable in Terms of Water Quantity

- Water supply
- In-stream flow for ecosystem, temperature control and water quality
- Emergency supply
- Dedicated flood reservation space has a water supply cost that can be measured

Same water can serve more than one purpose

How to Get From Physical Benefits to Monetized Benefits

- Market prices: what people are willing to pay
- Avoided costs: costs in the without-project condition that are saved because of the project.
- Alternative cost: cost of achieving the same physical benefit by some other means
- Survey methods
- Standardized methods or models: may include one or more of methods above

Project Costs

Normally Included:

- Planning/Engineering/Permitting
- Construction
- Land
- Contingencies: depend on planning stage
- Operating, Maintenance, Replacement
- Mitigation
 - WSIP can only pay for mitigation costs associated with public benefits, cannot pay for past mitigation requirements

Included if Applicable:

- Associated Costs: private costs required to achieve benefits
- Close-out or decommissioning
- Relocation or other compensation
- Other environmental costs

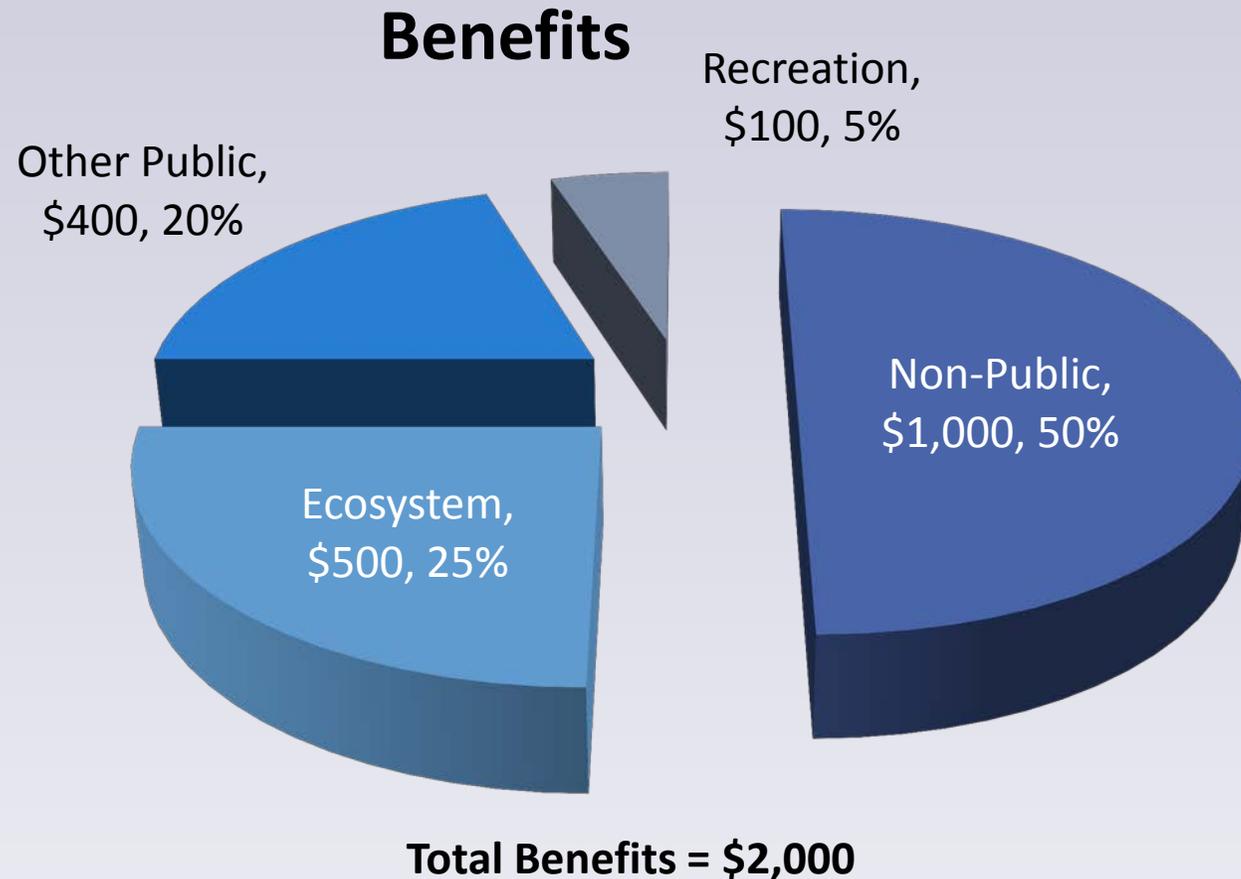
*All economic costs should be considered

Cost Allocation

- WSIP requires “benefits available to a party shall be consistent with that party’s share of total project costs”
- Cost allocation distributes project costs between purposes, beneficiaries or participants
- Provides basis for State and private cost shares and finance plan
- Normally based on benefits
 - Share of capacity or water supply
 - Economic benefits

Cost Allocation Example – Allocate according to benefits share

1. Estimate benefits
2. Calculate benefit shares
3. Assign cost shares equal to benefit shares
4. Could be physical benefit shares, if they are the same benefit measure



Separable Costs

- Separable Cost is the share of project cost attributable to a beneficiary, and is also their minimum cost share
- Some cost allocation methods are based on benefits and separable costs
- $\text{Joint Cost} = \text{Total Project Cost} - \text{All Separable Costs}$
- Separable Costs Remaining Benefits method is commonly used for water projects
- Result is that each beneficiary's cost share is more than its separable cost but less than its benefit

Questions?

Public Comment Period