

# May 20<sup>th</sup> Meeting

## California Water Commission

### Issue Working Session

#### Objectives

1. Get tentative approval from Commission members to use the proposed definitions (Commission members may decide to revisit any definition at a later date. Definitions are subject to change until regulations package is submitted to OAL, hence, staff is requesting “tentative” approval.).
2. In the absence of a tentative approval, get direction for modifying the proposed definitions.
3. Discuss items in bold/highlighted text.

#### Issue Summary

California Water Code Section 79753 defines five categories of public benefits: ecosystem improvements, water quality improvements, flood control benefits, emergency response, and recreation purposes. The Legislature’s definitions of these public benefits are vague at times, creating both room and necessity for interpretation regarding exactly what benefits fit within the guidance provided by the statute for each category. Which benefits to count in a particular category is an important question, because the statute requires:

- The Commission to select projects through *a competitive public process that ranks potential projects based on the expected return for public investment as measured by the magnitude of the public benefits provided* (§79750 (c)),
- The state cost share for public benefits not to exceed 50 percent of the total costs of any project funded (with a potential exception for conjunctive use and reservoir reoperation projects) (§79756 (a)),
- The ecosystem improvements provided by a funded project to be at least 50 percent of total public benefits of the project funded (§79756 (b)).

Given these mandates, the definition of what can be counted within a particular benefit category may influence the ranking of projects, the share of public benefits that are indicated for ecosystem purposes, and the share of cost allocated to public and other benefits.

The tables that follow provide a summary of what the statute includes within a particular public benefit category, what clarification should be provided in the WSIP Guidelines, and how a particular public benefit could be defined for the purposes of allocating benefits to project costs.

The contents on the following pages were also informed by discussions with the Commission and Issue Papers developed in 2012 and 2013, as appropriate.

**Table 1. Ecosystem Improvements**

<b>Public Benefit Category:</b>	Ecosystem Improvements
<b>Section in Statute:</b>	§79753 (a) (1)
<b>Language in Statute:</b>	Ecosystem improvements, including changing the timing of water diversions, improvement in flow conditions, temperature, or other benefits that contribute to the restoration of aquatic ecosystems and native fish and wildlife, including those ecosystems and fish and wildlife in the Delta.
<b>Initial Clarification of Language in Statute:</b>	<p>Ecosystem improvements, including:</p> <ul style="list-style-type: none"> <li>• Changing the timing of water diversions that contribute to the restoration of aquatic ecosystems and native fish and wildlife , including those ecosystems and fish and wildlife in the Delta</li> <li>• 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</li> </ul>
<b>Summary of 2013 Discussions:</b>	<p>Previous issues raised by staff included:</p> <ul style="list-style-type: none"> <li>• Special status of native fish and wildlife – Should only benefits to native fish and wildlife be counted? Should economic benefits caused by ecosystem improvements for non-native species, such as striped bass, be included?</li> <li>• Eligibility is unclear for restoration of terrestrial habitat or creation of new aquatic habitat – Should restoration of terrestrial habitat be eligible? Also, should creation of artificial aquatic ecosystems, for example, in a reservoir, be eligible?</li> <li>• Wildlife refuges – Improved water supply reliability for refuges is perceived by many to be an important ecosystem objective. New storage could provide water supply for refuges. Should water supply benefits for refuges be counted as ecosystem, or water supply? Note that this decision could hinge on the previous issue, are refuge wetlands aquatic or terrestrial ecosystems?</li> </ul> <p>In 2013, staff proposed two alternative definitions:</p> <ol style="list-style-type: none"> <li>1. Any economic benefits that result from “the restoration of aquatic ecosystems and native fish and wildlife” are ecosystem benefits.</li> <li>2. A benefit should be categorized based on the type of benefit obtained, regardless of whether or not it was enabled by restoration of aquatic ecosystems and native fish and wildlife.</li> </ol> <p>As an example, water users might obtain more water supply if special status fish populations were recovered. This would be an ecosystem benefit under 1 but a water supply benefit under 2.</p> <p>No resolution or agreement was reached during previous discussions.</p>

**Table 1. Ecosystem Improvements (cont'd)**

<p><b>Additional Considerations:</b></p>	<ol style="list-style-type: none"> <li>1. Staff suggests that any economic benefits that result from ecosystem improvements be counted as ecosystem benefits. This is consistent with the 2012 “tools and methods” document. For example, water quality and/recreation benefits caused by ecosystem improvements should be categorized as ecosystem improvement.</li> <li>2. Ecosystems include aquatic and terrestrial. Benefits to wildlife refuges would be counted under ecosystem improvements.</li> <li>3. The word “including” suggests that a variety of ecosystem benefits might be included. <b>Is there anything that could be related to ecosystem improvements that should not be included under this category? For example:</b> <ul style="list-style-type: none"> <li>○ Ecosystem benefits that arise from non-native fish and wildlife.</li> <li>○ Ecosystem physical benefits should net of any adverse effects.</li> </ul> </li> <li>4. Section 79753 (b) prohibits bond funds being expended for the costs of environmental mitigation measures or compliance obligations, except for those associated with providing the public benefits funded by the WSIP.</li> </ol>
<p><b>Proposed Clarification for Guidelines:</b></p>	<p>Ecosystem improvements, including:</p> <ul style="list-style-type: none"> <li>• Changing the timing of water diversions that contribute to the restoration of aquatic ecosystems and native fish and wildlife , including those ecosystems and fish and wildlife in the Delta</li> <li>• 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</li> </ul> <p>Ecosystems include aquatic and terrestrial habitats and natural communities.</p>
<p><b>Benefit Examples:</b></p>	<p>Most ecosystem improvements are expected to be Delta water supply or other Delta habitat alterations that improve native species; riverine, floodplain, and riparian habitat downstream of water storage facilities; as well as use of delivered supplies to improve wetlands and wildlife refuge areas. Release of stored water might be used to affect riverine flow and temperature or to provide water to increase wetland or riparian areas. Many ecosystem improvements are intended to help California Endangered Species Act listed or other at-risk species and native biotic communities including rare natural communities.</p> <p>In calculating ecosystem improvement benefits as a percent of the total public benefits, the following principles are recommended:</p> <ul style="list-style-type: none"> <li>• All monetized benefits that are directly caused by ecosystem improvements should be counted as ecosystem benefits. For example, sport fishing recreation benefits caused by the ecosystem improvement should be assigned to ecosystem improvement, not recreation.</li> <li>• Benefits that are incidental to operations for water supply for ecosystem services should not count as ecosystem benefits. For example, urban water quality improvements in the Delta caused by the use of water for ecosystem improvement should be assigned to water quality benefits, not ecosystem.</li> </ul>

**Table 2. Water Quality Improvements**

<b>Public Benefit Category:</b>	<b>Water Quality Improvements</b>
<b>Section in Statute:</b>	§79753 (a) (2)
<b>Language in Statute:</b>	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.
<b>Initial Clarification of Language in Statute:</b>	<p>Water quality improvements are:</p> <ul style="list-style-type: none"> <li>• Water quality improvements that provide significant public trust resources in the Delta</li> <li>• Water quality improvements that provide significant public trust resources in other river systems</li> <li>• Water quality improvements that clean up and restore groundwater resources</li> </ul>
<b>Summary of 2013 Discussions:</b>	<p>In 2013, staff proposed the following:</p> <p><i>Only benefits caused by water quality improvement in the Delta or in other river systems should be eligible, and of these, only benefits from enhanced fishing, recreation, or preservation of nature, or benefits that are caused by the clean up or restoration of groundwater resources, should be eligible.</i></p> <p>The rationale was that the qualifier “that provide significant public trust resources” was included because the authors did not intend that all water quality benefits should be eligible. Water quality improvements that benefit consumptive water uses are normally paid for by the consumptive water users. The phrasing of the definition suggests that the water quality improvement must originate “in the Delta or in other river systems.” The exact phrasing suggests that groundwater quality benefits are eligible only if they result from improvements in the Delta or other river systems.</p> <p>Guidance from the Director of the Department of Water Resources suggested the statute should be interpreted broadly in regards to water quality. Staff also noted that the proposed language might result in overlap between ecosystem benefits and water quality benefits.</p>
<b>Additional Considerations:</b>	<p>1. What is “significant”?</p> <p>Water quality improvements that provide public trust resources will be determined to be “significant” if a resource was specifically identified in the California Department of Fish and Wildlife (CDFW) or State Water Resources Control Board priorities. For example, “fisheries” have been identified as a public trust resource for this program and CDFW has identified Delta smelt as a priority species in its priorities, water quality improvements that improve conditions for Delta smelt will be identified as providing “significant public trust resources.”</p>

**Table 2. Water Quality Improvements (cont'd)**

<p><b>Additional Considerations (cont'd):</b></p>	<p>2. What are public trust resources?</p> <p>A definition of public trust resources was not provided in the Water Quality, Supply, and Infrastructure Improvement Act of 2014. The concept of “public trust resources” derives from the public trust doctrine. It is not distilled in a single law or policy statement. Rather, it is a guiding principle for government based on various statutory directives, common law and the State Constitution. Agencies have historically defined it in ways that comport with evolving common law holdings and fit the needs of their mandates. For example, SB 1 (2009) required the State Water Resources Control Board (Water Board) to develop new flow criteria to protect public trust resources in the Delta ecosystem pursuant to the Water Board’s public trust obligations. In developing these criteria, the Water Board articulated that the purpose of the public trust is to protect commerce, navigation, fisheries, recreation, ecological values, and fish and wildlife habitat.</p> <p>The concept of public trust uses is also fluid insofar as case law outlining its contours continues to evolve.<sup>1</sup> In the 1986 Racanelli case, the California Court of Appeal considered the public trust doctrine’s application to water quality issues in the Delta. Specifically the court addressed whether water users bear responsibility for water quality issues caused by their upstream diversions. The court concluded that the public trust doctrine allows state water regulators to modify previously issued water rights in permits in the interest of protecting the water quality values of the Delta for fish and wildlife.<sup>2</sup></p> <p>Based on discussions with the Water Board, staff recommends that fishery protection, fish and wildlife conservation, preservation of waterways in their natural state, and recreation be considered public trust resources. The definition is consistent with the draft water quality priorities being developed by the Water Board.</p>
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<sup>1</sup> The California Supreme Court has made it clear that objective of the public trust is always evolving so that a trustee is not burdened with outmoded classifications favoring the original and traditional triad of commerce, navigation and fisheries over those uses encompassing changing public needs. See National Audubon Society v. Superior Court, supra, at p. 434.

<sup>2</sup> United Sates v. State Water Res. Control Bd., 227 Cal. Rptr.161 at pp. 200-201. Referred to colloquially as the “Racanelli decision”.

**Table 2. Water Quality Improvements (cont'd)**

<p><b>Proposed Clarification for Guidelines:</b></p>	<p>Water quality improvements are:</p> <ul style="list-style-type: none"> <li>• Water quality improvements that provide significant public trust resources in the Delta</li> <li>• Water quality improvements that provide significant public trust resources in other river systems</li> <li>• Water quality improvements that clean up and restore groundwater resources</li> </ul> <p>For purposes of the Water Storage Investment Program, fishery protection, fish and wildlife conservation, preservation of waterways in their natural state, and recreation are the public trust resources associated with water quality improvements. Therefore, water quality improvements in the Delta or in other river systems that provide these resources may be counted as public benefits. Water quality improvements that clean up and restore groundwater may also be counted as public benefits; specifically, the prevention and clean-up of contaminated groundwater, and restoring water supply in over-drafted aquifers.</p>
<p><b>Benefits Examples:</b></p>	<p>Water quality improvements from water storage projects are usually provided by release of stored water to dilute, repel, or replace water of lower quality. Water quality improvements stemming from ecosystem improvements (for example, better water quality from restored wetlands) are recommended for classification as ecosystem benefits. Water quality provided for ecosystem purposes is also recommended for classification as ecosystem benefits.</p> <p>In the Delta, one long-standing water quality problem has been salinity for Delta water users, including Delta agriculture and Delta exports. Large storage projects upstream are used to repel saline water from the Delta. These operations are generally regarded as for “water quality” purpose. Releases of stored water may also be used to maintain salinity gradients to encourage primary productivity for ecosystem purposes; however, these operations are generally regarded as for “ecosystem” purposes and not for “water quality” purposes.</p> <p>Storage projects may be used (1) to retain and treat degraded runoff, (2) for mixing with more saline supplies, or (3) for other important local water quality purposes.</p>

**Table 3. Flood Control Benefits**

<b>Public Benefit Category:</b>	<b>Flood Control Benefits</b>
<b>Section in Statute:</b>	§79753 (a) (3)
<b>Language in Statute:</b>	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.
<b>Initial Clarification of Language in Statute:</b>	Not needed
<b>Summary of 2013 Discussions:</b>	There was some discussion as to whether the State should fund flood damage reduction benefits for federal properties. No issues papers or further record of past discussion was found.
<b>Additional Considerations:</b>	The phrase “including, but not limited to” suggests that a variety of flood control benefits might be included. <b>Is there anything that <u>should not be included under this category?</u></b> <ul style="list-style-type: none"> <li>○ PROVIDE EXAMPLES THAT WOULD NOT BE INCLUDED</li> </ul>
<b>Proposed Clarification for Guidelines:</b>	Flood control benefits, include, but are not limited to, increases in flood reservation space in existing reservoirs by exchange for existing or increased water storage capacity in response to the effects of changing hydrology and decreasing snow pack on California’s water and flood management system. This includes any flood control benefits that accrue from the reduction or prevention of the detrimental effects of flooding.
<b>Examples:</b>	Flood control benefits are provided by water storage projects in two ways: <ol style="list-style-type: none"> <li>1. Storage space is reserved for the capture of flood flows</li> <li>2. Benefits may be incidental to the use of storage for other purposes (i.e., the empty storage space provides a benefit, especially following dry years, even though the space is not made available by flood control operations.)</li> </ol> <p>Examples include:</p> <ul style="list-style-type: none"> <li>• Any increase in existing flood reservoir space either by reoperation (including forecast coordinated operations) or reservoir enlargement</li> <li>• New flood reservation space (as in new storage facilities)</li> <li>• Attenuation of damaging flood flows</li> <li>• Reducing potential flood damage by capturing excess flood flows for groundwater recharge</li> <li>• Actions that reduce the risk to human life, health, and safety from flooding, including protection of public safety infrastructure</li> <li>• Actions that reduce the risk of flood damage</li> <li>• Actions that reduce the operations and maintenance costs of the flood management system</li> </ul>

**Table 4. Emergency Response**

<b>Public Benefit Category:</b>	<b>Emergency Response</b>
<b>Section in Statute:</b>	§79753 (a) (4)
<b>Language in Statute:</b>	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.
<b>Initial Clarification of Language in Statute:</b>	Not needed
<b>Summary of 2013 Discussions:</b>	No record found.
<b>Additional Considerations:</b>	<p>1. The phrase “including, but not limited to” suggests that a variety of emergency response benefits might be included. <b>Is there anything that should not be included under this category? For example:</b></p> <ul style="list-style-type: none"> <li>a. What about water supplies for purposes other than dilution and salinity repulsion (e.g., urban water supply for health and safety) following a natural disaster or act of terrorism?</li> <li>b. Drought Supply – The SAC did not think actions such as providing drought emergency water supplies should be a qualified action. Staff generally tends to think this could be a qualified action for health and safety purposes only.</li> <li>c. Fire Suppression, including fire following earthquakes – Could water supply for fire suppression be qualified? Or should it be explicitly stated as not included?</li> </ul>
<b>Proposed Clarification for Guidelines:</b>	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. Emergency response benefits will qualify if water is held in storage and supply is dedicated to emergency response purposes outside of normal facility operations or average water supply for all other purposes is reduced for the expected (average) amount of water used for emergency purposes.
<b>Examples:</b>	The main intent of emergency response is to provide public funding for water storage that can be used to repel seawater from the Delta following a Delta levee failure event. Water storage might have other emergency response benefits such as providing water for firefighting following an earthquake or for human health and safety during natural disaster or act of terrorism.

**Table 5. Recreational Purposes**

<b>Public Benefit Category:</b>	<b>Recreational Purposes</b>
<b>Section in Statute:</b>	§79753 (a) (5)
<b>Language in Statute:</b>	Recreational purposes, including, but not limited to, those recreational pursuits generally associated with the outdoors.
<b>Initial Clarification of Language in Statute:</b>	Not needed
<b>Summary of 2013 Discussions:</b>	<p>In 2013, staff believed that reservoir and flow-based recreation such as fishing, boating and swimming that directly result from the proposed project would qualify. Less clear to them was whether recreation that results from the use of a water supply, such as improvements to or increased use of public parks, public swimming pools, or golf courses would qualify.</p> <p>Following discussions with the Commission, staff proposed the following:  <i>Recreation benefits include outdoor recreation activities associated with natural water bodies such as rivers, streams, lakes, wetlands, and the ocean. Benefits from outdoor recreation at man-made reservoirs are 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.</i></p>
<b>Additional Considerations:</b>	<p><b>The phrase “including, but not limited to” suggests that a variety of recreational purposes might be included. Is there anything that <u>should not be included under this category?</u> For example:</b></p> <ul style="list-style-type: none"> <li>• Recreation benefits that may 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, golf course, swimming pool, or water-based theme park.</li> </ul>
<b>Proposed Clarifications for Guidelines:</b>	<p>Recreational purposes include, but are not limited to, those recreational pursuits generally associated with the outdoors. These shall include outdoor recreation activities associated with water bodies (such as rivers, streams, lakes, wetlands, and the ocean) and wildlife refuges that are accessible to the public.</p> <p>Recreational benefits must be directly affected by the proposed project and open to the public.</p>
<b>Examples:</b>	<p>Recreation benefits are use values, including consumptive use values such as fishing and non-consumptive use values such as aesthetics and wildlife viewing. Generally, recreation benefits are those associated with water provided by the project such as flatwater recreation on storage reservoirs and any additional riverine recreation downstream. Recreation benefits may also be obtained from ecosystem services, but those benefits are recommended for classification under ecosystem benefits.</p>