



Public Investment White Paper

October 18, 2011

Executive Summary

Established in 1990, the California Urban Water Agencies (CUWA) is a non-profit corporation of 10 major urban water agencies that are collectively responsible for about two-thirds of California's drinking water supply.

As the voice for the largest urban water purveyors in California, CUWA has developed this white paper to provide a technical basis to inform any new approaches for public financing of water-related projects. CUWA has numerous concerns with the current direction of discussions about implementing a public goods charge for water, and supports instead a "beneficiary pays" system.

A public goods charge (PGC) was first applied in the mid-1990s to the electric sector as a volumetric charge to be paid by electric utilities on each unit of electricity delivered. Proposals to replicate such a charge for the water sector are inappropriate and inconsistent with the "beneficiaries pay" approach endorsed by CUWA in its May 2009 Financing Principles. CUWA is concerned that the various proposals for a public goods charge are essentially a tax on the water sector, which fail to establish a clear nexus of benefits to beneficiaries, allow other public and private parties to benefit without paying their fair share, and do not provide any assurance that the revenues would benefit the service area of the utility that collected the funds.

Currently, there are many existing funding mechanisms for major water projects that are working well at local and regional levels. CUWA encourages continued application and possible expansion of these mechanisms to a statewide level, following the beneficiary pays principle. A beneficiary pays system is based on the principle that beneficiaries who receive benefits from a specific project or program pay their proportional share of the project's cost. Potential beneficiaries include urban and agricultural water users, as well as many other interests that could benefit from projects enabling the continued privilege of uses, such as flood protection, recreation, discharge of wastewater or runoff, upstream water diversion, commercial fishing, affected infrastructure or operations, and the general public.

CUWA has outlined the critical elements of a functional beneficiary pays system, including definition of key terms, a list of potential beneficiaries, and the following principles that are consistent with standard ratemaking criteria.

- **Inclusion** of all beneficiaries (both private and public) of funded efforts. Charges would be apportioned to all who benefit from funded efforts. No free riders would be allowed by "opting out".
- **A clear nexus** between charges and benefits received. Charges collected by the State must be placed in accounts that cannot be diverted to unrelated projects or programs. Funds must focus on water system improvements and/or ecosystem enhancements and not be applied to mitigation.

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- **Specificity** that charges under the beneficiary pays principle are based on defined projects with defined costs.
- **Transparency** of fee allocation and investment decisions, fully understandable to the beneficiaries funding the program.
- **Strict dedication of funds** to water-related projects and programs, and no redirection of revenues to other purposes.
- **Reasonable assurances** that benefits will be delivered proportionately to charges assessed.

CUWA is committed to working with others to further develop these initial ideas about a beneficiary pays system into a viable statewide funding mechanism. CUWA envisions this white paper as an evolving document that will be refined as the dialogue on future financing of California water needs develops. Future versions of the white paper will be posted on the CUWA website www.cuwa.org.

Section 1 | Introduction and Overview

The future of California depends on a reliable, high-quality water supply. In recent years, State agencies and stakeholders have increasingly recognized the need to develop new funding mechanisms to finance major investments in California water resources and infrastructure. With the convergence of the water reform legislation in 2009 and the ongoing State budget crisis, developing viable new funding mechanisms has become more urgent, and various parties are becoming increasingly vocal on how to finance future water investments.

Established in 1990, CUWA is a non-profit corporation of 10 major urban water agencies that are collectively responsible for about two-thirds of California's drinking water supply. As the voice for the largest urban water purveyors in California, CUWA has a vested interest in ensuring that any new approaches to public financing of water-related projects are equitable and do not create new systems of subsidies or other economic inefficiencies. The beneficiary pays concept has been widely embraced as a promising method of public financing, which has already been practiced by public water agencies at the local level for many decades.

Objectives

This white paper aims to inform the discussion on public financing options for water and to develop a conceptual framework that explores the distinctions between the various options. Specifically, the paper addresses three objectives:

- Establish a common understanding of frequently used terms (Section 1),
- Analyze the conceptual basis for user fees and present CUWA's concerns with a public goods charge (PGC) for water as described by various parties (Section 2), and
- Advance the beneficiary pays approach as a statewide financing mechanism for consideration (Section 3).

Although much of the discussion on long-term funding of water infrastructure has focused on the Sacramento-San Joaquin Delta (Delta), funding is a statewide issue. CUWA's white paper adopts this broader perspective.

Definitions of Frequently Used Terms

Productive discussions begin with a shared definition of key terms and concepts which, up to now, have suffered from a lack of clarity and mutual understanding. CUWA offers the following suite of definitions for consideration.

- A **Public Goods Charge** is a method used to collect revenues to fund projects or programs that have a direct nexus to a public good or benefit. It is not meant to collect revenues to fund projects or programs that provide a private or local benefit.
- **Public Goods or Public Benefits** essentially represent goods and services that are available to everyone, whether or not they helped pay for them. In the water arena, public benefit is defined as the direct and indirect improvement(s) that do not accrue to a specific community, entity or group of entities that result from implementing water-resources-related projects and programs. In general, public benefits are widely dispersed among various communities and where specific beneficiaries cannot be readily identified. Project mitigations undertaken pursuant to obligations under CEQA, NEPA or other statutes are not considered public benefits because even though they may benefit a broad audience, they are required to offset potentially negative impacts of the project.
- **Local/Private Benefit** is defined as the measurable improvement that results from a specific water-resources-related project or program for a community or other entity. These benefits can be direct or indirect and are measured in comparison to conditions that exist without the project. Local/private benefits are limited to specific entities, in contrast to public benefit, as defined above. Local/private benefits include, but are not limited to, water supply, flood control, recreation, hydropower supply and water quality improvements. An example of a direct improvement is taking delivery from a new water storage or conveyance facility. An example of an indirect improvement is receiving increased water supply that results from a new project added to a complex system where an increase in delivery occurs away from the new project or as an indirect result.
- The **Beneficiary Pays Principle** means that a public or private entity who receives benefits from a specific project or program should pay a proportional share of the project's cost. Project costs include planning, design, environmental documentation, environmental mitigation, construction, operation, maintenance, and repair/replacement. The costs are to be shared by as many beneficiaries as are benefited by either a new project or the privilege of continuing an activity, in proportion to the benefit each receives. Beneficiaries may include urban and agricultural water users, as well as those who benefit from flood protection, recreation, and discharge of wastewater or runoff, among others. Depending on the project, the general public could also be a beneficiary.
- The **Polluter Pays Principle** calls for parties who add pollutants to a system to pay proportionately into the costs of mitigation for that pollution. For water-related systems, the Polluter Pays Principle addresses polluters who contaminate water resources through their discharges of waste into streams and bodies of water and who are obligated under existing and future environmental laws to pay to mitigate adverse impacts. The concept of Polluter Pays fits into the Beneficiary Pays Principle from a prospective basis, where a new project provides mitigation of adverse impacts and thus enables the privilege of continuing the activity causing the pollution.
- The **Stressor Pays Principle** is a relatively newer concept used by some. It is a slightly broader concept than the Polluter Pays Principle and calls for parties who introduce other stresses on a system beyond pollution (i.e., adverse changes in flow conditions from upstream diversions of

water) to pay proportionately into the costs of those adverse effects. Similar to Polluters Pay, the concept of Stressor Pays fits into the Beneficiary Pays Principle from a prospective basis, where a new project enables the privilege of continuing the activity causing stress on the system.

- **Free Ridership** occurs when an entity who is receiving a specific benefit or privilege granted is not charged appropriately for that benefit or privilege. To the extent that Free Ridership exists, other identified beneficiaries become burdened with costs that are not directly tied to their own benefits and privileges and thus pay disproportionately. Free Ridership is in direct conflict with the Beneficiary Pays Principle, which calls for all beneficiaries to pay proportionately for their benefits.

Section 2 | Conceptual Basis for User Fees and Concerns with Current Proposals for a Public Goods Charge on Water

This section summarizes the conceptual basis for a PGC, starting with its first application to the electric sector in California in the mid-1990s and spanning to more recent proposals for application to the water sector. Although the PGC has been applied in the electric sector, there are a number of concerns (summarized below) that make it infeasible and inappropriate to translate to the water sector. In addition, the passage of Proposition 26 in November 2010 and its new requirements and restrictions make many of the existing models infeasible for future charges.

Origin of the Public Goods Charge

A PGC for both investor-owned electric utilities (IOUs) and publicly owned electric utilities (POUs) was originally instituted by AB 1890 (Brulte) in 1996. The PGC revenues from the IOUs fund cost-effective energy efficiency and conservation activities; public interest research and development not adequately provided by competitive and regulated markets; and in-state operation and development of existing, new and emerging eligible renewable energy resources. In the case of POU, revenues are entirely dedicated to energy efficiency measures and projects within the service area of the POU that collected the funds, and the expenditures are subject to specific reporting requirements. AB 1890 was followed by AB 1002 (Wright, 1999), which established a “natural gas surcharge” to fund low-income assistance, cost-effective energy efficiency and conservation activities, and public interest research and development not adequately provided by the competitive and regulated markets. The PGC for electric utilities is currently set to expire in January 2012.

Recent Proposals for a Public Goods Charge in the Water Sector

Increasingly severe constraints on state and federal finances have prompted a number of calls to impose a PGC on water consumption loosely modeled on the PGC for the electrical utilities; however, most of these take the concept in a very different direction from the energy sector PGC. In most proposals, 50 to 100 percent of the revenue would be directed by the State to finance a range of projects that are said to be in the “state interest” or fall into the category of a “public good” — both terms that have not been formally defined.

Proposals for a PGC on water have identified a number of potential areas that could receive funding, including end-use water efficiency improvements, systemwide efficiency projects, water recycling, renewable energy projects, ecosystem restoration, science and research programs, the California Water Plan, Integrated Regional Water Management Plans (IRWMPs), administrative costs for State agencies such as the Delta Stewardship Council, and the public benefits from infrastructure such as surface storage projects. Some projects may have, at best, an indirect nexus to water resources

(e.g., renewable energy projects) or may have significant local/private benefits (e.g., water use efficiency). Some of the proposals would require a portion of the revenues to be used to finance IRWMPs or some undefined regional funding agency – again, a State mandate that effectively limits how much revenue can be returned to the ratepayers from whom it was derived. More detail on the concepts that have been proposed to date is provided below.

Governor Schwarzenegger's Water Resources Investment Fund (WRIF) (2005). The concept behind the WRIF was that a proposed new fee on water users would, in part, pay for projects and programs identified in IRWMPs around the state. The mandatory State-driven fee would be imposed by local water suppliers and collected from their customers for payment into a State fund. Money generated by the fee – estimated at that time to be about \$5 billion over 10 years – would have been evenly split between a statewide investment account and regional investment accounts. The regional accounts would help fund IRWMPs that met specific requirements.

AB 32 Scoping Plan (2009). In this document, the California Air Resources Board (ARB) recommended “a public goods charge for funding investments in water management actions that improve water and energy efficiency and reduce GHG [greenhouse gas] emissions.” The plan suggested that “a public goods charge on water can be collected on water bills and used to fund end-use water efficiency improvements, systemwide efficiency projects, water recycling, and other actions that improve water and energy efficiency and reduce GHG emissions.” ARB has offered no specific proposal for a PGC since the release of the Scoping Plan.

Goldman School of Public Policy, Implementing a Public Goods Charge for Water (July 2010). The authors of the Goldman paper undertook an evaluation of: 1) whether a PGC for water is the right tool to achieve the GHG emissions reductions called for in the AB 32 Scoping Plan from the water sector; and 2) how to implement a PGC for water. The paper concluded that a PGC is appropriate because it adds a price signal that incentivizes water conservation and provides a stable revenue stream to fund activities specified in AB 32. The paper proposes that the PGC be implemented with a volumetric charge on metered water consumption, and the proceeds managed by regional authorities responsible for IRWMPs.

Public Policy Institute of California (PPIC), Managing California's Water – From Conflict to Resolution (September 2010). Among the many recommendations in the PPIC's recent paper was a statewide PGC. The PPIC view is that “a statewide PGC – volumetric surcharge on all surface and groundwater used in the state – is a promising solution to the chronic underfunding of the State's water-related agencies and ecosystem programs.” The PPIC sees a PGC as “a more efficient and equitable way to support local and regional water infrastructure.”

Funding Public-Purpose Water-Related Activities (April 2011). The Legislative Analyst's Office authored this brief report that identifies “public-purpose components” associated with water-related projects, including planning and management, broadening access to necessary water services, ecosystem improvements, risk and emergency management, and recreation. The report advocates an “assessment” on urban retail water sales and a separate per-acre charge on irrigated agricultural lands to fund public-purpose components, with the revenues to be allocated by State agencies (led by the Water Commission) on a competitive basis.

Senate Bill 34 (Simitian) – California Water Resources Investment Act of 2011 (as amended April 13, 2011). SB 34 would impose an annual charge on each retail water supplier in the state for both nonagricultural and agricultural uses. Funds would be deposited in a California Water Resources Investment Fund, split evenly between a state investment account and an unspecified number of

regional investment accounts. The regional investment accounts would fund water-related projects and programs to be defined and to be consistent with prescribed requirements. The statewide account would fund public benefits of specified water-related projects and programs, including statewide water resources projects, operating expenses of the Delta Stewardship Council and the Delta Plan, projects that reduce the impacts of mercury contamination in the Delta, and specified scientific studies and assessments. Funds would not be expended for environmental mitigation, compliance, or Delta conveyance facilities. Fees are not defined in the April version of the bill, but a previous version included figures of \$110 per acre-foot in the form of a nonagricultural PGC and \$10 to \$20 per acre of land that is irrigated for agricultural purposes. Annual revenues from the fees in the previous March version are estimated at approximately \$1 billion.

Concerns with a Public Goods Charge for Water

Understandably, shortfalls in the State's General Fund have prompted State agencies to seek alternative funding, and a PGC on water may initially seem a logical solution. The concept has been eagerly embraced by some because local water agencies have their own rate-setting authority and can pass on costs that are associated with water service. Unfortunately, the apparent expediency of this solution has inspired a great number of potential demands on a PGC to supplant traditional expenditures from the General Fund. However, concepts currently in circulation for a PGC on water are overreaching, inherently flawed, and do not provide a viable and appropriate mechanism to fund public benefits of water projects.

CUWA recognizes the State's established practice of identifying and funding public benefit aspects of projects, largely with general obligation bonds. Water conservation and recycling projects are examples of efforts that have been jointly funded by local water providers and the State in recognition of those projects' significant local and public benefits. CUWA sees public funding of public benefits to be appropriate. However, a PGC, or retail tax on water is not an appropriate funding mechanism, particularly if it is collected from a subset of the general public (i.e., water users), thus resulting in inequities and free riders.

CUWA has several specific concerns with a PGC, because it:

- Lacks a nexus of benefits to beneficiaries
- Represents a de facto new tax
- Is not sufficiently inclusive of all beneficiaries
- Ignores existing fund-raising authority that water agencies already exercise effectively
- Would be less efficient than locally based systems

No assurance of a direct nexus. Revenues collected from ratepayers would be re-distributed under existing proposals for a public goods charge on water, with no assurance of a direct nexus to specific projects that would benefit those ratepayers.

New tax. Although some seem to have the perception that a PGC would be more broadly acceptable, it essentially constitutes just another new tax. The state taxpayers have signaled a strong reluctance to increase their tax burden, and a PGC offers a somewhat more covert means to the same end. A new State-mandated tax would impede the ability of water agencies to adjust rates in the future for their own local needs. Indeed, many proponents of a PGC argue that taxpayers and ratepayers are essentially the same people, but they are separate and need to be treated as such for the purposes of Proposition 26. As such, a PGC would be subject to legal considerations related to Proposition 218 and Proposition 26.

Not sufficiently inclusive of beneficiaries. To date, proposals for a PGC on water have focused entirely on urban and agricultural water users and have ignored many other significant beneficiaries of water-related projects and programs, both private and public. Many PGC proposals would apply revenues to specific projects that would, in fact, provide private benefits that should rightly be paid by the beneficiary. Others would fail to collect fees from beneficiaries other than the rate payers, and would exacerbate an already existing problem with free riders.

Water agencies already have the authority. Various proposals for a PGC on water are overreaching and aim to solve problems that do not exist. Water agencies already have rate-setting authority and have exercised it successfully to collect funds for projects and programs that provide significant private benefits in addition to public benefits, or that are driven by legislative or regulatory mandates. Such projects and programs, including water conservation and recycling, local infrastructure, and local participation in IRWMPs, have been identified by some PGC proposals as candidates for PGC funding.

Water use efficiency (WUE) has frequently been cited as a good candidate for PGC funding. However, the passage of SBx7-7 in 2009 (the 20x2020 statute) explicitly makes WUE the responsibility of local water agencies. Using PGC funds for WUE would inevitably create serious inequities by taking money from agencies that had already made major investments in WUE and using those funds to bring lagging agencies “up to speed”. Although CUWA recognizes and supports the State’s authority and efforts to fund public benefits of water conservation and similar programs through the use of general obligation bonds, CUWA strongly believes that PGC monies collected from one agency’s ratepayers should not be used to preferentially fund another agency’s private benefits or efforts to comply with existing mandates.

Less efficient. Creating yet another program for the State to administer is not the best approach to fund many of the State’s water needs. Many of the issues call for local and/or regional solutions, and water utilities have a good track record of successfully planning, funding and implementing major water projects quickly and efficiently. A statewide PGC would be considerably less efficient than programs carried out at the water utility level due to significant increases in overhead and administration efforts.

While many proposals present a PGC as an expression of the beneficiary pays concept, it is critical to recognize that a PGC for the water sector, as has been proposed, has no relation to the beneficiary pays principle because the ratepayers have no reasonable expectation of receiving a direct benefit. The PGC as proposed is simply a de facto tax on water use.

CUWA acknowledges that the funding of public benefits is a problem that remains to be addressed; however, any solution must meet a higher standard for public acceptance than that offered by a PGC on water. In the meantime, CUWA member agencies will continue to invest in local, cost-effective projects on our own to enhance conservation, recycling and development of local supplies.

Section 3 | A Viable Alternative – Beneficiary Pays

The concept of “beneficiary pays” is not new, but it has been one of the most difficult sticking points in the discussion of public financing for water going back at least 15 years. Among the many challenges has been a lack of clarity about the meaning of beneficiary pays, which has resulted in scant progress on developing a financing plan that can achieve broad support. CUWA agencies believe that a beneficiary pays approach can be developed fully and effectively and are committed to

supporting that effort. In addition, a properly applied beneficiary pays mechanism would ensure more equitable distribution of costs among all beneficiaries, including some entities that have previously been free riders enjoying local/private benefits from public funds. An overview of the beneficiary pays concept, along with more specifics on what it would entail, is presented below.

CUWA strongly encourages adoption of a beneficiary pays system to address California's water investment needs in lieu of a PGC. To date, few if any specific proposals have surfaced regarding the actual implementation of a system of payments under the beneficiary pays principle. CUWA's May 2009 Financing Principles white paper (Attachment 1) continues to be the most specific to date in terms of presenting an approach focused on implementing a beneficiary pays system. Building off that previous work, CUWA is providing this white paper to define the beneficiary pays principle (above) and offer several specific suggestions (below) to advance the understanding of the approach. The next step is development of a specific implementation plan which CUWA is working to develop by spring 2012 (see www.cuwa.org for updates).

Principles

CUWA proposes several basic principles, which are consistent with standard rate-making criteria, for consideration in any beneficiary pays system to raise funds for water-related investments.

- **Inclusive** of all beneficiaries from funded efforts, including both public and private beneficiaries. Charges would be apportioned to all who benefit from funded efforts. No free riders would be allowed by "opting out".
- **A clear nexus** between charges and benefits received. Charges collected by the State must be placed in accounts that cannot be diverted to unrelated projects or programs. Funds would focus on water system improvements and/or ecosystem enhancements and would not be applied to mitigation.
- **Specificity** that charges under the beneficiary pays principle are based on defined projects with defined costs.
- **Transparent basis** for allocating fees and investment decisions, fully understandable to the beneficiaries funding the program.
- **Strict dedication of funds** to water-related projects and programs and no redirection of revenues to other purposes.
- **Reasonable assurances** that benefits will be delivered in line with charges apportioned.

Working Examples of Beneficiary Pays

There is ample precedent for local investment in major water supply facilities and other water-related projects, primarily paid for by the ratepayers who are the direct beneficiaries of these projects. A few recent examples include:

- Diamond Valley Reservoir and Inland Feeder (MWDSC)
- Los Vaqueros Reservoir and Expansion (CCWD)
- Freeport Regional Water Project (EBMUD and Sacramento County)
- San Vicente Reservoir Expansion (SDCWA)

These examples demonstrate that local water agencies have the means to secure public approval and funding to construct water supply projects that benefit their ratepayers. In addition, the CUWA agencies have also shown great success in financing and implementing programs that provide a

local benefit in their service areas, such as WUE and recycled water programs and projects. CUWA recognizes that the picture is more complicated in situations where there are multiple beneficiaries, and especially where the state has played a significant historical role in financing projects (e.g., in maintaining and improving Delta levees), but believes that principles applied at the local level can be successfully scaled to statewide application.

Categories of Beneficiaries

Categories of beneficiaries on a statewide level and examples of related benefits are summarized below.

- **Urban and agricultural water users** (e.g., agencies that divert water from the Delta and tributaries for domestic, industrial, commercial, and agricultural use).
- **Upstream water diverters and other stressors** (e.g., entities who are beneficiaries of the continued privilege of actions granted or enabled by project improvements).
- **Interests benefiting from flood protection** (e.g., local communities or levee boards that benefit from levees and/or other flood control structures constructed as part of larger water improvement projects).
- **Dischargers** into waters that ultimately serve as water supply sources (e.g., entities responsible for municipal or industrial wastewater, urban runoff, agricultural runoff).
- **Recreational interests** (e.g., fisherman or boaters who benefit from improvements in water quality and/or flow conditions).
- **Commercial fishing interests** (e.g., those that benefit from improvements in water quality and/or flow conditions).
- Other interests with **affected infrastructure or operations** (e.g., those who rely on transportation systems protected by levees, those with infrastructure in areas that are better protected by project improvements).
- The **public** (e.g., the broad public that benefits from ecosystem restoration, science and research programs, state agency administration).

There is currently one bill active in the legislature, Assembly Bill 576 (Dickinson, D-Sacramento), that calls for long-term financing that follows the beneficiary pays principle. The bill defines beneficiaries to include entities that “benefit or cause negative impacts”. It also recognizes that mitigation costs for projects included in the Delta Plan are the responsibility of project beneficiaries.

Section 4 | Recommendations and Next Steps

As the urban voice for the largest water purveyors in California, CUWA has a vested interest in ensuring that any new approaches to public financing of water-related projects are equitable and effective. CUWA recognizes that there are still many details to be worked out, and stands ready to work with the State and water community to further develop the ideas presented in this white paper to create a viable funding system with statewide application. A brief summary of recommendations and suggested next steps follows.

- All parties, including the water community, regulatory agencies and stakeholders, need to adopt a common terminology related to public financing to enable effective, productive dialogue. CUWA has drafted recommended definitions and a list of potential beneficiaries for consideration.

- The State should move away from a PGC as proposed for water to a beneficiary pays system as the preferred financing mechanism for water projects. The beneficiary pays system holds that projects or programs are funded by beneficiaries who receive the benefits and pay their proportional share of the cost.
- Efforts to define a functional system of public financing of water-related projects should be framed by the principles proposed by CUWA.
- State interests need to work together to fully formulate the elements of a beneficiary pays system and to engage water suppliers and other beneficiaries in developing the solution. Areas for further work include the following.
 - A fair process to allocate costs among beneficiaries
 - Means to provide for public benefits (e.g., funding of ecosystem enhancement efforts)
 - A mechanism to effectively deal with the free rider issue as required by Proposition 26 (i.e., integrating beneficiaries who receive a substantive benefit, regardless of investment)
 - A clear means to distinguish payments for mitigation versus enhancement
 - Achievement of overall consistency with Proposition 26 requirements

Attachment 1 | CUWA Financing Principles for Delta Improvements (May 2009)

CALIFORNIA URBAN WATER AGENCIES FINANCING PRINCIPLES FOR DELTA IMPROVEMENTS

Prioritize Expenditures

It is prudent and responsible for the entity / entities created to oversee improvements in the Delta to prioritize expenditures of program elements, including identification of a range of funding targets, so that the program implementation will occur in a balanced manner if funding levels are not achieved in the needed timeframe.

Finance Packages of Actions that Achieve Balance

It is essential that financing continue to be linked to a balanced program that advances all key elements of the needed Delta improvements. The overall package must be affordable.

Delta Users Pay for Delta Improvements

There are many Californians who use the Delta for business or recreation, have a stake in a healthy Delta ecosystem, and depend on the Delta as a reliable water supply. The general public and those Delta users with a direct stake in the Delta must assist in financing the billions of dollars of improvements needed in the Delta.

Public Funds Pay for Public Benefits

CUWA agencies oppose a water user fee (tax) on water bills to pay for the state share. Funds for the state share that pay for broad public benefits should come from state sources, not from water users. However, if a water user fee (tax) concept is pursued, it is essential that it be subject to the requirements associated with imposing a new tax and the resulting revenue must be tied directly to funding specific programs.

Cost-sharing Agreements Provide Implementation Assurances

Cost-sharing agreements between all related parties (including the state and federal government) are essential to assure that implementation of the program, including necessary regulatory and other assurances, is paired with available funding.

Responsible Parties Pay to Remedy Impacts

General fees assessed on specific classes of Delta users should not be used to mitigate the impacts of specific projects. Project specific mitigation measures are the responsibility of the project proponents/beneficiaries and are addressed during each project's California Environmental Quality Act (CEQA) process.

Establish an Evidentiary Process to Allocate Delta User Financial Obligations

A task force comprised of experts on the Delta, public finance, and other relevant disciplines should be created to develop an independent process for the purpose of implementing the Delta user pays principle. The process should meet the following criteria:

- Be transparent and open to the public
- Rely solely on evidence on the record
- Identify and include all users of Delta resources
- Clarify the distinction between public and private benefits
- Provide for public input on the proposed process
- The entity in charge of the process shall be independent

PARTICIPANTS IN A HEALTHY DELTA ECOSYSTEM AND RELIABLE WATER SUPPLY

Every Californian gains from a Delta that has a resilient ecosystem and provides a reliable water supply, as the economic activity and tax revenues generated in those areas of the state that receive export supplies provide significant financial resources, job creation, and revenues critical to the state's economy and provision of governmental services. Moreover, there are many who use the Delta and have a stake in a healthy Delta ecosystem and a reliable water supply for California. All of these participants must assist in financing the billions of dollars of improvements needed in the Delta. Listed below are the major user groups and examples of how they will be impacted by improvements in the Delta. Table 1 provides a summary of Delta users who will benefit from Delta improvement programs. This is provided as a starting point for allocating responsibility for future financing.

BROAD PUBLIC

Impacts on Delta

As stated previously, every Californian gains from a Delta that has a resilient ecosystem and provides a reliable water supply for the state. Consequently, the impacts on the Delta from multiple users are broadly shared by the public.

Interests

The following Delta improvement programs provide broad public benefits:

Emergency Preparedness – Provides quick response to natural disasters to minimize disruption of water supplies, transportation, power, and commerce.

Flood Control and Levee Improvements – Prevents flooding of Delta islands which protects water supplies, transportation, power, commerce, and public safety. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Provides ecosystem/natural resource improvements, including reduced impacts on native fish and dedicated storage for environmental water, while also contributing to improved water supply reliability, which drives the economic engine of the state. All Californians gain from these improvements.

Delta Water Quality Improvements – Improves water quality for all consumers drinking water taken from the Delta with downstream agencies likely seeing the most improvement. The entire state has a stake in providing improved ecosystem water quality as it will directly improve habitat and aquatic species.

Conveyance Programs – Provides water supply reliability which drives the economic engine of the state. All Californians gain from these improvements.

Storage Projects – Improves water supply reliability and flood control, particularly in light of expected impacts from climate change, reduced snowpack, and highly variable hydrology in the decades to come.

Table 1. Delta Users that Benefit from Delta Improvements

<i>Improvements:</i>	Broad Public	Drinking Water Suppliers	Agri-cultural Industry	Delta Communities	Transportation	Other Delta Infrastructure	Waste-water Discharges	Recreation and Tourism Industry	Commercial Fishing Industry	Building Industry
<i>Emergency Preparedness</i>	•	•	•	•	•	•	•	•	•	•
<i>Flood Control and Levee Improvements</i>	•	•	•	•	•	•	•	•	•	•
<i>Habitat Restoration & Ecosystem</i>	•	•	•	•	•	•	•	•	•	
<i>Water Quality Improvements</i>	•	•	•	•			•	•	•	
<i>Conveyance Programs</i>	•	•	•				•	•	•	
<i>Storage Projects</i>	•	•	•	•	•	•	•	•	•	•
<i>Water Conservation Programs</i>	•	•	•				•			•
<i>Wastewater Recycling Programs</i>	•	•	•				•			•
<i>Wastewater Treatment Improvements</i>	•	•	•	•			•	•	•	

Water Conservation Programs – Provides for more water in rivers.

Wastewater Recycling Programs – Meets some water demands that would otherwise utilize potable supplies, thus reducing net demands for potable water, and improves water quality for agencies downstream of wastewater discharges. Demand reduction and water quality improvements depend on location of projects.

Wastewater Treatment Improvements – Improves Delta water quality due to more advanced treatment which provides benefits to many Delta users.

DRINKING WATER SUPPLIERS

Impacts on Delta

Drinking water suppliers divert water from the tributaries to the Delta and in the Delta, and export water conveyed through the Delta to supply drinking water to most of the state. These diversions impact the Delta by reducing the amount of water flowing into the Delta, changing the hydrodynamics of the Delta, and affecting the ecosystem of the Delta. These diversions adversely impact Delta salinity during low flow periods.

Interests

Drinking water suppliers will benefit from the following Delta improvement programs:

Emergency Preparedness – Provides quick response to natural disasters to minimize disruption of water supplies and water quality degradation for drinking water suppliers taking water from the Delta, protects aqueducts crossing the Delta.

Flood Control and Levee Improvements – Prevents flooding of Delta islands which protects water supply and water quality for drinking water suppliers taking water from the Delta, protects aqueducts crossing the Delta. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Provides water supply reliability and water quality improvements for drinking water suppliers taking water from the Delta watershed. Also provides mitigation for upstream diversions.

Delta (Drinking) Water Quality Improvements – Improves drinking water quality for all drinking water suppliers taking water from the Delta, with downstream agencies likely seeing the most improvement.

Conveyance Programs – Provides water supply reliability and water quality improvements for drinking water suppliers taking water from the Delta. Reliability and water quality improvements depend on location of projects.

Storage Projects – Improves water supply reliability, particularly in light of expected impacts from climate change, reduced snowpack, and highly variable hydrology in the decades to come. Improvements depend on location of storage projects.

Water Conservation Programs – While not reducing the need for and overall reliance upon exports, urban water conservation programs can and do buffer the impact of drought and, for export agencies, regulatory restrictions on pumping from the Delta when imposed to meet

environmental goals. In addition, they reduce pumping and drinking water treatment costs for all drinking water suppliers.

Wastewater Recycling Programs – Meets some water demands that would otherwise utilize potable supplies, thus reducing net demands for potable water, and improves water quality for drinking water suppliers downstream of wastewater discharges. Demand reduction and water quality improvements depend on location of projects.

Wastewater Treatment Improvements – Improves Delta water quality due to more advanced treatment.

AGRICULTURAL INDUSTRY

Impacts on Delta

The agricultural industry diverts water from the tributaries of the Delta and in the Delta and exports water conveyed through the Delta to grow numerous crops and process agricultural products. These diversions impact the Delta by reducing the amount of water flowing into the Delta, changing the hydrodynamics of the Delta, and affecting the ecosystem of the Delta. The agricultural industry discharges agricultural drainage to the tributaries of the Delta and to the Delta, affecting water quality and ecosystem health. In-Delta agricultural practices contribute significantly to the ongoing subsidence of Delta islands.

Interests

Agricultural interests will benefit from the following Delta improvement programs:

Emergency Preparedness – Provides quick response to natural disasters to minimize disruption of water supplies and water quality degradation for agricultural operations taking water from the Delta, minimizes disruption in agricultural operations in the Delta.

Flood Control and Levee Improvements – Prevents flooding of Delta islands which protects water supply and water quality for agricultural operations taking water from the Delta, protects agricultural operations in the Delta. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Provides water supply reliability and water quality improvements for agricultural operations taking water from the Delta watershed.

Delta Water Quality Improvements – To the extent a particular agricultural operation needs improved water quality, improves water quality for all agricultural operations taking water from the Delta watershed with downstream operations likely seeing the most improvement.

Conveyance Programs – Provides water supply reliability and water quality improvements for agricultural operations taking water from the Delta.

Storage Projects – Improves water supply reliability, particularly in light of expected impacts from climate change, reduced snowpack, and highly variable hydrology in the decades to come. Improvements depend on location of storage projects.

Water Conservation Programs – While not reducing the need for and overall reliance upon exports, these programs can and do buffer the impact of drought and, for export agencies,

regulatory restrictions on pumping from the Delta when imposed to meet environmental goals. In addition, they reduce pumping and drinking water treatment costs for all urban agencies.

Wastewater Recycling Programs – Meets some water demands that would otherwise utilize potable supplies, thus reducing net demands for potable water, and improves water quality for agencies downstream of wastewater discharges. Demand reduction and water quality improvements depend on location of projects.

Wastewater Treatment Improvements – Improves water quality due to more advanced treatment.

DELTA COMMUNITIES

Impacts on Delta

There are a number of communities in the secondary zone of the Delta, some of which are rapidly growing. These communities impact the Delta through water diversions, discharges of urban runoff and wastewater, and weakened levees due to use of Delta levee roads.

Interests

Delta communities will benefit from the following Delta improvement programs:

Emergency Preparedness – Provides quick response to natural disasters to minimize damage to Delta communities and economic losses.

Flood Control and Levee Improvements – Prevents flooding of Delta communities and economic losses. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Provides water supply reliability and water quality improvements for Delta communities, as well as economic benefits from tourism.

Delta Water Quality Improvements – Improves water quality for Delta communities.

Storage Projects – Improves flood control, particularly in light of expected impacts from climate change, reduced snowpack, and highly variable hydrology in the decades to come.

Wastewater Treatment Improvements – Improves Delta water quality due to more advanced treatment.

TRANSPORTATION

Impacts on Delta

There are several highways and rail lines and numerous roads and bridges that cross the Delta. The Ports of Sacramento and Stockton use the Delta to transport goods from the Bay Area to the Central Valley. Transportation impacts the Delta through discharges of contaminants from boats, greenhouse gas emissions from vehicles, and weakened levees due to the use of Delta levee roads.

Interests

The transportation industry will benefit from the following Delta improvement programs:

Emergency Preparedness – Provides quick response to natural disasters to minimize disruption of transportation in and across the Delta, and minimizes the economic loss associated with disruptions.

Flood Control and Levee Improvements – Prevents flooding of Delta islands which protects transportation infrastructure in the Delta. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Provides flood control benefits through creation of floodways and corridors.

Storage Projects – Improves flood control, particularly in light of expected impacts from climate change, reduced snowpack, and highly variable hydrology in the decades to come. Improvements depend on location of storage projects.

OTHER DELTA INFRASTRUCTURE AND INDUSTRY

Impacts on Delta

Electric transmission lines and gas and petroleum pipelines cross the Delta. The Delta also contains gas storage fields; gas and oil wells; and television, radio, and cell towers. Power plants divert cooling water from the Delta. These Delta users impact the Delta through using water diversions for turbine cooling, discharges of contaminants to Delta waterways, greenhouse gas emissions from energy production, and weakened levees due to the use of Delta levee roads.

Interests

Other Delta interests and industry will benefit from the following Delta improvement programs:

Emergency Preparedness – Provides quick response to natural disasters to minimize disruption of service in and across the Delta, and minimizes the economic loss associated with disruptions.

Flood Control and Levee Improvements – Prevents flooding of Delta islands which protects infrastructure in the Delta. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Allows power plants to continue using Delta water for cooling. Provides flood control benefits through creation of floodways and corridors.

Storage Projects – Improves flood control, particularly in light of expected impacts from climate change, reduced snowpack, and highly variable hydrology in the decades to come. Improvements depend on location of storage projects.

WASTEWATER DISCHARGERS

Impacts on Delta

There are a number of small and two large wastewater dischargers in the Delta. Contaminants in wastewater discharges may adversely affect aquatic life and drinking water quality.

Interests

Wastewater dischargers will benefit from the following Delta improvement programs:

Emergency Preparedness – Provides quick response to natural disasters to minimize disruption of wastewater facilities in the Delta, and minimizes fines associated with effluent violations associated with disrupted facilities

Flood Control and Levee Improvements – Prevents flooding of Delta islands which protects wastewater infrastructure in the Delta. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Allows dischargers to continue to discharge to Delta waterways. Provides flood control benefits through creation of floodways and corridors.

Delta Water Quality Improvements – Improves influent water quality for all wastewater agencies in areas receiving imported water, which may increase viability of wastewater recycling projects and improve ability to meet effluent limitations.

Conveyance Programs – Provides water quality improvements for wastewater agencies in the areas receiving imported water, which may increase viability of wastewater recycling projects and improve ability to meet effluent limitations.

Storage Projects – Improves flood control, particularly in light of expected impacts from climate change, reduced snowpack, and highly variable hydrology in the decades to come. Improvements depend on location of storage projects.

Urban Water Conservation Programs – Reduces influent flows which reduces treatment costs and may defer costs associated with wastewater treatment plant expansion.

Wastewater Recycling – Potential for discharge quality improvements.

Wastewater Treatment Improvements – Advanced wastewater treatment may allow dischargers to discharge greater quantities of effluent.

RECREATION AND TOURISM INDUSTRY

Impacts on Delta

The Delta is heavily used for boating, fishing, swimming, camping, and hiking. There are numerous marinas, campgrounds and other recreational facilities in the Delta. Recreation and tourism impacts the Delta through water diversions, discharges of contaminants from boats, weakened levees from use of Delta levee roads, and greenhouse gas emissions from vehicles.

Interests

The recreation and tourism industry will benefit from the following Delta improvements:

Emergency Preparedness – Provides quick response to flooding of Delta recreational facilities and minimizes loss of life and injury.

Flood Control and Levee Improvements – Prevents flooding of Delta recreational facilities and protect access to facilities. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Improves fisheries for sport fishing throughout the Delta watershed and near-shore ocean with fewer restrictions on fishing.

Delta Water Quality Improvements – Improves water quality for body contact recreation.

Conveyance Programs – Provides improved conditions for fish in the Delta, leading to improved recreational fishing.

Storage Projects – Provides improved conditions for salmonids in Central Valley Rivers, leading to improved recreational fishing. Provides expanded recreational opportunities at new reservoirs.

Wastewater Treatment Improvements – Impacts of discharges to the Delta system.

COMMERCIAL FISHING INDUSTRY

Impacts on Delta

A number of commercially important fish reside in the Delta for some portion of their lifecycle. The commercial fishing industry impacts the Delta by reducing fish populations, discharging contaminants from boats, results of greenhouse gas emissions, etc.

Interests

The commercial fishing industry will benefit from the following Delta improvements:

Emergency Preparedness – Provides quick response to flooding of Delta islands, protects water quality, and minimizes impacts on Delta fisheries.

Flood Control and Levee Improvements – Prevents flooding of Delta islands, protects water quality, and minimizes impacts on Delta fisheries. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Habitat Restoration and Ecosystem/Watershed Protection – Improves fisheries for fishing throughout the Delta watershed and near-shore ocean, prevents closure of commercial fishing.

Delta Water Quality Improvements – Provides improved water quality for fish, leading to a better commercial fishery.

Conveyance Programs – Provides improved conditions for fish in the Delta, leading to a better commercial fishery.

Storage Projects – Provides improved conditions for salmonids in Central Valley Rivers, leading to a better commercial fishery.

Wastewater Treatment Improvements – Impacts of discharges to the Delta system.

BUILDING INDUSTRY

Impacts on Delta

The secondary zone of the Delta has some of the fastest growing communities in California. The building industry impacts the Delta through discharges of contaminants during construction, weakened levees due to construction equipment using Delta levee roads, increased flooding due to encroachment on flood space and increased impervious area, and increased discharges of contaminants in urban runoff.

Interests

The building industry in areas that rely on Delta water has an interest in the reliability of the water supply because water agencies in the export areas must assure that water is available for development. The building industry will benefit from the following Delta improvements:

Emergency Preparedness – Provides quick response to flooding of Delta islands, protects construction projects, and minimizes economic losses.

Flood Control and Levee Improvements – Prevents flooding of Delta islands, allows development to occur, protects construction projects, and minimizes economic losses. It is less expensive to provide flood control infrastructure and prevent levee failures than to repair costly damages caused by emergencies.

Storage Projects – Improves water supply reliability. Improves flood control, particularly in light of expected impacts from climate change, reduced snowpack, and highly variable hydrology in the decades to come. This allows development to occur.

Urban Water Conservation Programs – The building industry benefits from improved water supply reliability that is provided by water conservation programs.

Wastewater Recycling Programs – The building industry benefits from improved water supply reliability that is provided by wastewater recycling programs.