



investing for today and tomorrow



Reliability & Efficiency

A long-term commitment



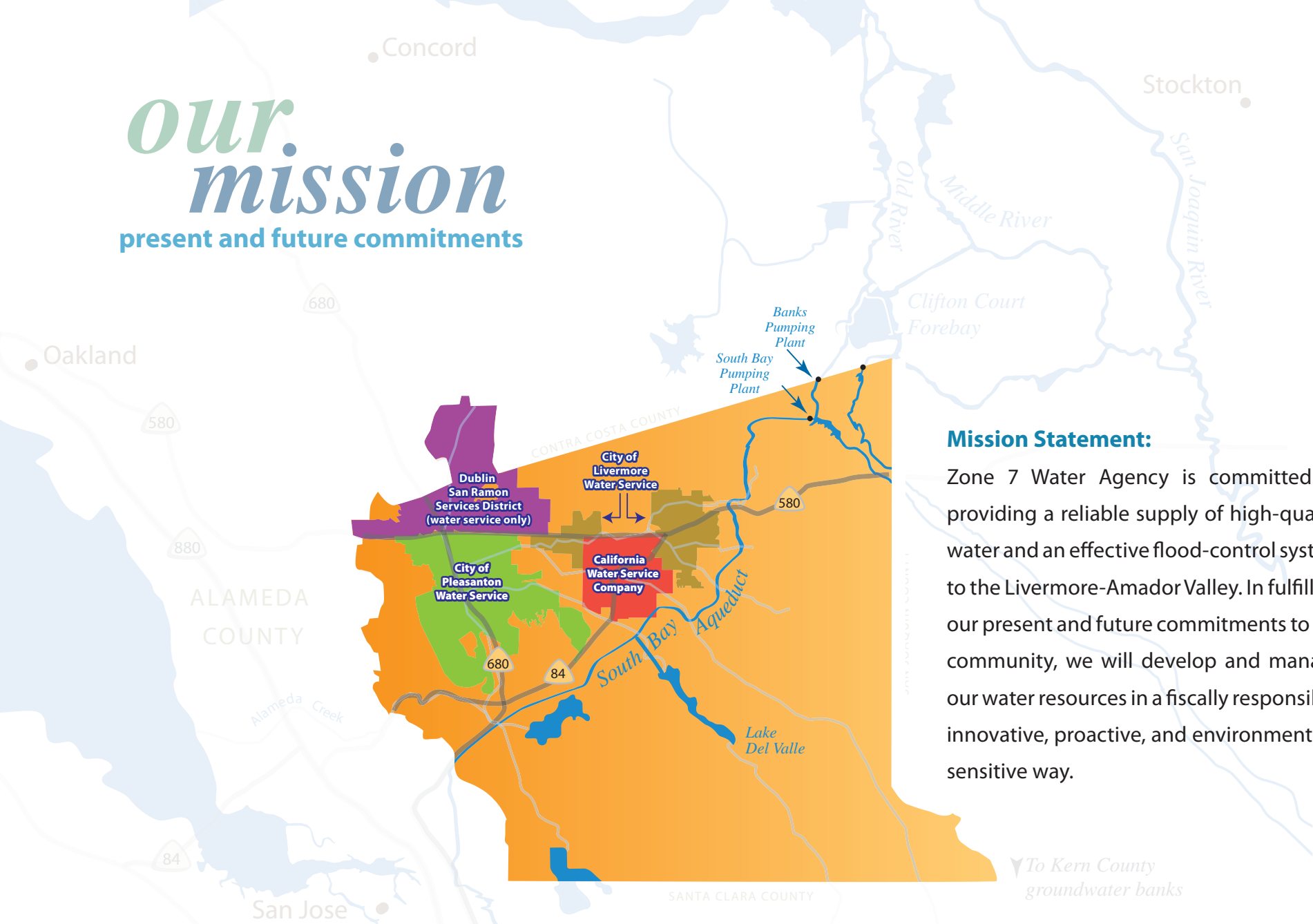
Zone 7 Water Agency



2011 Annual Report

our mission

present and future commitments



Mission Statement:

Zone 7 Water Agency is committed to providing a reliable supply of high-quality water and an effective flood-control system to the Livermore-Amador Valley. In fulfilling our present and future commitments to the community, we will develop and manage our water resources in a fiscally responsible, innovative, proactive, and environmentally sensitive way.

▼ To Kern County groundwater banks

Who Do We Serve? Zone 7 supplies treated drinking water to retailers serving more than 200,000 people in Pleasanton, Livermore, Dublin and, through special agreement with the Dublin San Ramon Services District, the Dougherty Valley area in San Ramon. We also supply untreated irrigation water to some local vineyards, farms and golf courses, and provide flood protection to all of eastern Alameda County.

Front cover: Zone 7's service area will benefit from the State Department of Water Resources' South Bay Aqueduct Enlargement and Improvement Project (photos courtesy of DWR).

Our Board of Directors



Sandy Figuers
President, FY 2011-12

A Message from the President

In the face of many challenges, Zone 7 made big strides during 2011 in proactively working to secure the community's long-term water supply reliability, to ensure its water system infrastructure is adequately maintained and upgraded, and to improve the Agency's overall financial efficiency and accountability.

Even as the year brought welcome rain after three years of drought, we stayed focused on the longer-term water-supply picture as we continued to grapple with uncertain reliability of our future State Water Project deliveries. We remained committed to support and participate in statewide Bay Delta Conservation Plan efforts toward a Delta fix aimed at improving both water supply reliability and the Delta ecosystem. After many years of hard work and input from diverse interests, it appeared that a solution to these complex problems could well be finalized by 2013 following further scientific review and public comment. Meanwhile, while Zone 7 will always rely on Delta conveyance for most of its water supply, we completed a Water Supply Evaluation in 2011 that also identifies backup water-supply portfolios warranting further analysis and that outlines some immediate operational improvements to minimize risk of shortages as longer-term solutions are pursued.

The year also underscored Zone 7's commitment to making the financially prudent investments necessary to protect the dependability of aging water-system infrastructure now and into the future. After a decade of planning, the state

Department of Water Resources by the end of 2011 was close to completing its project to improve the South Bay Aqueduct for additional water-supply reliability and energy efficiency, and to enlarge it to meet contractual capacity levels. As for Agency-owned facilities, Zone 7 completed an update of its Asset Management Plan to help anticipate and implement equipment repair or replacement projects to ensure that such things as transmission pipelines, treatment plants and municipal wells are adequately maintained and upgraded, as appropriate, to prevent system breakdowns/service disruptions and even bigger potential costs in the future.

Wise financial management and improved efficiency in these difficult economic times helped us develop a FY 2011-12 budget that was \$2.2 million less than the previous year, when savings also were achieved. Meanwhile, we continued to pursue separation from Alameda County as a way to better represent all our customers (including those in Dougherty Valley), and to streamline operations and cut costs. And our new solar project at the Del Valle Water Treatment Plant will help us reduce long-term energy costs as well as help the environment.

In terms of our flood protection program, in addition to taking care of ongoing maintenance, repair and renovation projects, Zone 7 in 2011 laid the groundwork for updating its Stream Management Master Plan (SMMP). This update will address new California Environmental Quality Act requirements for climate change analysis, incorporate recent watershed-wide changes, and facilitate any future revisions to Zone 7's Development Impact Fee for flood protection. Zone 7, in partnership with the Urban Creeks Council, was awarded a \$190,000 grant in November 2011 from the California State Coastal Conservancy for environmental studies in the watershed.



Sarah Palmer
Vice President, FY 2011-12



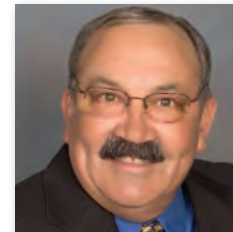
AJ Machaevich



Christopher Moore



John Greci



Dick Quigley



Bill Stevens

Key activities & accomplishments in 2011

For Water Supply, Reliability and Quality, Zone 7:

- ▶ Updated its Asset Management Plan to help the Agency manage its aging infrastructure by proactively planning for and implementing equipment repair or replacement projects so it can continue to provide cost-effective, high-quality, reliable water delivery to businesses and residents within its service area.
- ▶ Continued to support Bay Delta Conservation Plan efforts aimed at achieving the co-equal goals of restoring the Delta ecosystem and securing reliable water supplies for 25 million Californians, including those in Zone 7's service area. State and federal agencies were committed to completing environmental documents by 2013.
- ▶ In light of continuing uncertainty over the reliability of Delta-conveyed State Water Project supplies, completed a Water Supply Evaluation that 1) recommends continuing to participate in and support statewide efforts toward a Delta fix, 2) identifies backup water-supply portfolios warranting further analysis, and 3) outlines operational improvements to minimize risks of shortages while a Delta fix and/or other water supply projects are pursued.
- ▶ Expanded the types of rebate programs for residents and businesses who invest in high-efficiency technology aimed at reducing indoor and outdoor water use, and was included in a Bay Area regional grant award from the state Department of Water Resources that will fund programs when used specifically for such rebates.
- ▶ Was among local agencies lauded for its practices in an Association of California Water Agencies report entitled, "Sustainability from the Ground Up: A Framework for Groundwater Management in California."

- ▶ Provided water quality that continued to meet the regulatory standards set by the state and federal governments and that, in almost all cases, was significantly better than required.
- ▶ Through operation of the Mocho Groundwater Demineralization Plant, and in furtherance of its Salt Management Plan, exported out of the Valley 2,250 tons of salt via brine from the groundwater basin.

For Financial Accountability and Cost Efficiency, Zone 7:

- ▶ Implemented efficiency measures that resulted in an overall FY 2011-12 operating budget being \$2.2 million less than FY 2010-11. Cost-cutting actions included continuation of a soft hiring freeze, employee benefit and cost-of-living wage measures, lowered costs of outside contracts by maximizing the use of in-house resources, and reduced chemical costs by participating in a consortium of Bay Area water agencies that purchase common treatment chemicals and can achieve savings through high-volume buying.
- ▶ Continued to pursue separation from Alameda County as a way to streamline operations and cut costs.
- ▶ Reduced energy costs through 1) construction of a ground-mounted solar power installation project at its Del Valle Water Treatment Plant, saving \$50,000 in the first year alone and an estimated \$812,000 over the 20-year term of the agreement, and 2) actively pursuing the purchase of cheaper, cleaner electrical

OBJECTIVE: Improving reliability and operational flexibility



This new pump station improves Zone 7's ability to pump water to the eastern part of its service area, providing reliability and operational flexibility if and when the Patterson Pass Treatment Plant is down.

power sources through the Western Area Power Administration and the Power and Water Resources Pooling Authority (PWRPA). These utilities are expected to reduce Zone 7 energy costs by between \$300,000 and \$700,000 annually starting in 2015. A 2011 agreement allows Zone 7 to receive some alternative power from PWRPA prior to that.

- ▶ Significantly streamlined and simplified the administrative process governing its untreated water service applying mainly to agricultural users, in part for administrative cost savings.
- ▶ Through a connection fee program update, verified that fees charged to new development to fund the Water System Expansion Program represent the reasonable costs of providing services to new customers, and need to be adjusted only to account for the impact of inflation on future projects.

from the *groundwater* *up!* a path towards sustainability

For Flood, Habitat and Environmental Protection, Zone 7:

- ▶ Through completion of the solar project at the Del Valle Water Treatment Plant, reduced reliance on conventional power plants that burn fossil fuels, thereby cutting annual greenhouse gas emissions that contribute to global climate change. Carbon dioxide emissions alone will be reduced by nearly 15.9 million pounds over a 20-year period.
- ▶ In partnership with the Urban Creeks Council, was awarded a \$190,000 grant from the California State Coastal Conservancy for environmental studies in the watershed to assist in the update of Zone 7's Stream Management Master Plan project. The grant will provide money to conduct studies of existing bird and fish populations, will help inform stream corridor design decisions and will provide Zone 7 with information on how to address climate change in upcoming California Environmental Quality Act analyses, as is now required under state law.

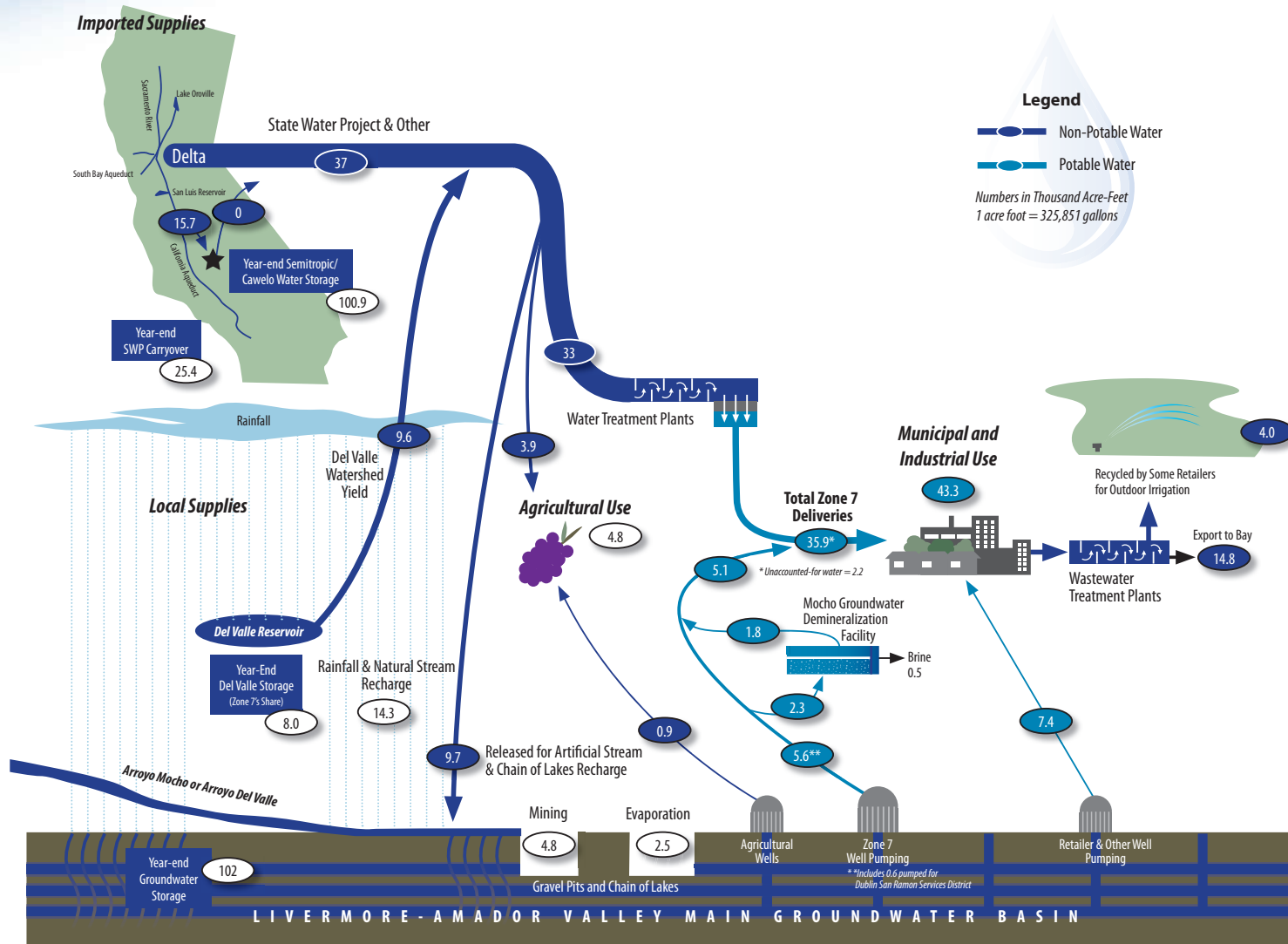
- ▶ Formally accepted the East Alameda County Conservation Strategy to use as guidance when reviewing and implementing Agency water-supply and flood-protection projects and maintenance activities in terms of potential conflicts with endangered or threatened species. In the past, project mitigation has been done on a case-by-case basis, resulting in piecemeal conservation that was more time-consuming and expensive, and less effective at preserving and connecting the open space and natural habitat areas found in eastern Alameda County.



Tour of new solar facility at the Del Valle Water Treatment Plant

Livermore-Amador Valley Water Supply & Use

Supplying Water Reliably ~2011 operations



The vast majority of Zone 7's water supply starts as Sierra snowmelt

and is conveyed to the Valley from the State Water Project via the Delta and South Bay Aqueduct. Most is treated locally for delivery to water retailers as potable water, while some is delivered untreated to agricultural operations. Some is also recharged into the local groundwater basin for storage and use when needed, and some is sent to out-of-area groundwater storage banks. Zone 7 also relies on local rainfall for a small fraction of its supply. In addition, some retailers do their own additional groundwater pumping and some use recycled water to satisfy a share of outdoor irrigation demands.

Zone 7 Invests in Water System Reliability

Three water treatment plants, approximately 40 miles of transmission pipeline, nine municipal wells and a groundwater demineralization facility represent the backbone of Zone 7's wholesale water system, and it's our responsibility to proactively ensure these facilities are maintained and upgraded, as appropriate. This valuable public infrastructure is a significant community investment valued at \$423 million. Zone 7's 2011 Asset Management Program update identified the need to increase the financial contribution from water rates to replace equipment, as needed, to prevent system breakdowns/service disruptions and avoid even bigger potential costs in the future. This financially responsible, proactive approach to asset management, which also includes setting aside funds for systemwide improvements, required adding another \$1.6 million from water rates for the 2012-13 fiscal year to eventually reach an appropriate level of funding to sustain and improve infrastructure as necessary.

Water Treatment Clarifier

Before



After



A recent project to renovate a key piece of equipment at the Patterson Pass Conventional Water Treatment Plant is just one example of Zone 7's commitment to protecting the reliability of the community's water supply.

The Patterson Pass Conventional Water Treatment Plant clarifier removes suspended particles from the untreated water we receive from the State Water Project before undergoing further filtration and treatment. The original facility was constructed in 1964 and although it had performed well over the years, it had outlived its useful life, and it was requiring more maintenance to keep this critical piece of equipment

in operation. A project launched in 2011 included replacing the clarifier equipment in the existing concrete basin, repairing areas in the concrete walls and floor, recoating the existing handrails, and installing a new corrosion-control system.

SBA Gets An Upgrade

The State Water Project's South Bay Aqueduct (SBA), serving Zone 7, the Alameda County Water District and the Santa Clara Valley Water District, is being improved for additional water-supply reliability and energy efficiency, and enlarged to meet contractual capacity levels. Planning began in 2002, construction started in late 2006, and project completion is expected in Spring 2013. The vast majority of Zone 7's share of costs (for the enlargement) is being paid with fees on new development, with a small portion (for the improvement) coming from property tax revenue.

The SBA Enlargement and Improvement Project includes upgrades to the South Bay Pumping Plant and the addition of a 450-acre-foot (146.6-million-gallon) Dyer Reservoir, along with 4 ½ miles of pipeline connecting it to the South Bay Pumping Plant.



The Dyer Reservoir will allow water to be pumped at night for storage, when electricity costs are cheaper, and then be delivered to meet peak demand via gravity flow. Among other things, the new reservoir should also provide for improved water-supply reliability in the event of short-term South Bay Pumping Plant outages.

Reliability Accomplishments

Zone 7 received 80 percent of its contracted-for State Water Project supplies in 2011. The Agency successfully met all treated and untreated water demands and increased already-high levels of reserves through wise resource management and because businesses and residents continued to use water wisely. The last 100 percent allocation from the State Water Project – difficult to achieve even in wet years because of pumping restrictions to protect threatened and endangered fish – was in 2006.

Supply/Demand for Zone 7 Water Supplies

(in Acre-Feet) (Jan. 1 – Dec. 31, 2011)

Supply	2010	2011
State Water Project deliveries (into Valley)	29,800	36,300
Pumping from local groundwater storage	8,400	5,100
Local surface water (Del Valle Reservoir)	5,300	9,600
Supplemental water purchases BBID/Yuba	5,500	700
Surface water from offsite banking	0	0
Total Supply	49,000	51,700
Demand		
Municipal (drinking) water	35,300	35,900
Untreated irrigation water	3,900	3,900
Unaccounted-for water *	1,800	2,200
Released for local groundwater recharge	8,000	9,700
Total Demand	49,000	51,700
State Water Project water sent to offsite banking	13,000	15,700
Available Year-End Storage		
Local groundwater basin	99,000	102,000
Offsite banking programs	90,800	100,900
Del Valle Reservoir storage	7,700	8,000
State Water Project carryover	19,000	25,400
Total Year-End Storage	216,500	236,300

*Refers to meter discrepancies or other undefined system losses typical for water systems of this size.

co-equal goals for a sustainable Delta

By the end of 2011, after many years of hard work and input from diverse interests, and with an unprecedented level of public involvement, it appeared that a plan aimed at achieving the co-equal goals of restoring water supply reliability and a healthy Delta ecosystem was finally taking form. State and federal agencies were committed to completing the Bay Delta Conservation Plan's environmental review process by 2013.

The Delta conveys more than 80 percent of Zone 7's water supplies, and reduced allocations due to court-ordered restrictions on State Water Project pumping have placed our long-term water supply at risk and subject to a very uncertain future.

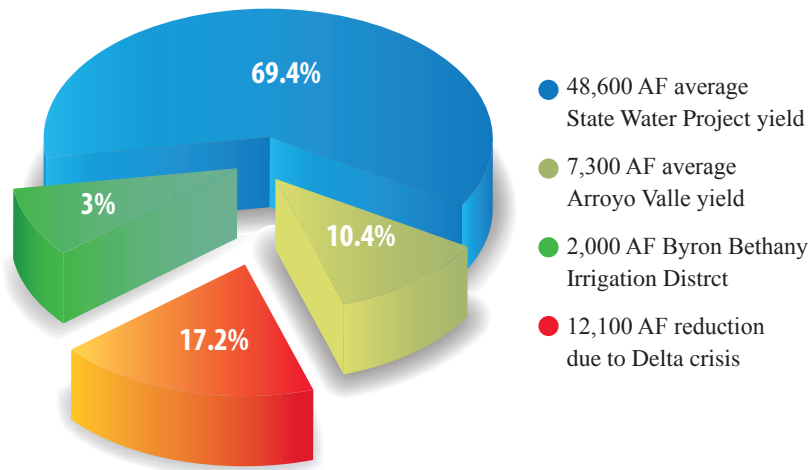
The BDCP is a comprehensive, innovative, science-based approach to addressing California's water supply challenges and the Delta's environmental struggles. To improve the flow of water through the Delta and reduce the impact on fish, the plan seeks to identify an alternate way of routing freshwater supplies from the Sacramento River to the state and federal pumps that send water to water agencies throughout California. Rather than using the Delta as the primary conduit for moving water across the Delta, the BDCP is analyzing options to move water through a new conveyance facility underneath or around the Delta.

The conservation plan also incorporates extensive habitat restoration actions. By improving the flow patterns of water through the Delta, and taking steps to restore habitat, the BDCP aims to create a healthy and sustainable Delta environment. State and federal water contractors are currently funding the plan's development, and have committed to funding construction of any new conveyance facility that is built.

Zone 7 continues to investigate options to diversify our water supply sources. But ultimately, we will always rely on the Delta for the majority of our water supply. And unfortunately, regardless of the source, a reliable long-term water supply for our future will take a significant investment .

Addressing our water supply challenges on several fronts

Water Supply Reduced from SWP



Over the last few years, due to Delta pumping restrictions and the effects of climate change, Zone 7's projected long-term average yield from the State Water Project has been reduced by more than 12,000 acre-feet, or about 17 percent of total supplies.

Water Supply Evaluation In proactive response to uncertainties related to Delta pumping restrictions and climate change, Zone 7 staff completed the 2011 Water Supply Evaluation in close coordination with the agency's Delta Committee and all four local water supply retailers.

The analysis of reduced long-term average yield from the State Water Project indicated that the chance of water-supply shortages increases dramatically beyond 2020 as projected water demands begin to exceed long-term average water supply. Consequently, as recommended in the study, Zone 7 is moving forward with a set of no-regret actions to help minimize the risk of water-supply shortages. This includes working with the local water-supply retailers to develop additional water conservation savings and recycled water programs, continuing to implement the Well Master Plan and Chain of Lakes projects, confirming water supply availability from the existing water supply contracts, reducing brine losses from the existing Mocho Groundwater Demineralization Plant, reducing unaccounted-for water, and enhancing Zone 7's existing groundwater recharge program.

The evaluation generally confirmed the need to continue on the path of supporting and participating in statewide efforts to restore the sustainability of the Delta and the reliability of the State Water Project (i.e. a Delta fix). Zone 7 also continues to evaluate several major backup water-supply portfolios, including increasing the use of recycled water within its service area and securing potential new imported water supplies, possibly through interties with other agencies.

OBJECTIVE: Restoring water supply reliability and a healthy Delta ecosystem

Zone 7 will always rely on the conveyance of water through, around or under the Delta for a majority of its water supply.

Water Conservation

In 2011, Zone 7 continued to develop new and innovative ways to promote indoor and outdoor conservation in the Valley to help meet future water demands.

Conservation is an important part of our effort to manage, diversify and protect our water supply from possible disruption caused by drought, climate change, natural disaster and regulatory or other operational changes. Zone 7's conservation program is working to assist all customers in improving water-use efficiency through education, public outreach and financial incentives.

Zone 7 is a signatory to the California Urban Water Conservation Council, whose goal is to integrate urban water conservation Best Management Practices into the planning and management of the state's water resources. Zone 7 is committed to demonstrating these practices and implementing a wide range of voluntary conservation programs, including water audit services, financial incentives for plumbing retrofits, and public and school outreach programs.

A state law enacted in 2009 aimed at reducing California's reliance on the Delta for water supply requires a 20 percent reduction in per-capita urban water use by 2020, and Zone 7 has been collaborating with its water retailers to help them plan accordingly. It is also assisting the Valley's cities in developing ordinances, required in a 2010 state law, dealing with water-efficient landscaping for both new development and rehabilitated landscape.

In 2011, Zone 7 expanded the types of rebate programs available to residents and businesses who invest in high-efficiency technology aimed at reducing indoor and outdoor water use. Over the course of the year, Zone 7:

- ▶ Launched new rebate programs for:
 - customers who replace standard, clock-type controllers with qualifying, self-adjusting weather-based "smart" controllers.
 - pre-approved residential and non-residential customers who replace existing water-thirsty front lawns with sustainable, drought-tolerant landscaping.
- ▶ Issued 2,448 rebates for high-efficiency clothes washers, in partnership with Pacific Gas & Electric Co. – saving both energy and an estimated 19.5 million gallons of water annually (599 acre-feet of water over the life of these appliances) in Zone 7's service area.
- ▶ Issued 634 rebates for high-efficiency toilets that use 1.28 gallons or less per flush, in partnership with local retailers – saving an estimated 3.6 million gallons of water annually (221 acre-feet over the life of these appliances).
- ▶ Completed 20 "large landscape" irrigation audits for businesses, industries, parks and schools, identifying potential water savings of more than 32.5 million gallons annually based on recommended actions.

The expanded rebate programs are subsidized by a Proposition 84 Integrated Regional Water Management Grant awarded by the state's Department of Water Resources. Zone 7 spearheaded the San Francisco Bay Area's regional water conservation grant application effort. A total of \$33 million in grant funding for the region was awarded, of which \$14.9 million was for area-wide conservation programs, including not only rebates but education and public outreach as well.

Lawn Conversion Rebates



Groundwater Resources Management

Agency Recognized for Sustainable Practices

In 2011, Zone 7 was among local agencies lauded for its practices in an Association of California Water Agencies report, entitled “Sustainability from the Ground Up: A Framework for Groundwater Management in California,” posted on ACWA’s website. The report says the examples cited “have generated impressive results and should be utilized as models for other agencies ...”

“Zone 7 Water Agency has actively managed the Livermore Valley Groundwater Basin for more than 40 years for municipal water supply,” the report notes. “It began importing State Water project water into the watershed in 1962 to reduce groundwater extractions that had left the basin in overdraft. Soon after, the district began artificially recharging the basin by using local ‘losing’ streams to convey and percolate imported water.

“It continues to manage the basin conjunctively through a comprehensive Groundwater Management Plan that incorporates salinity management to offset the addition of salts from imported and recycled water. Plans are being developed to augment the district’s artificial recharge capacity by adding nine aggregate quarry pits that will be used as water storage and aquifer recharge basins. Through its efforts, Zone 7 has curbed groundwater pumping and replenished basin aquifers to levels that can be managed sustainably.”

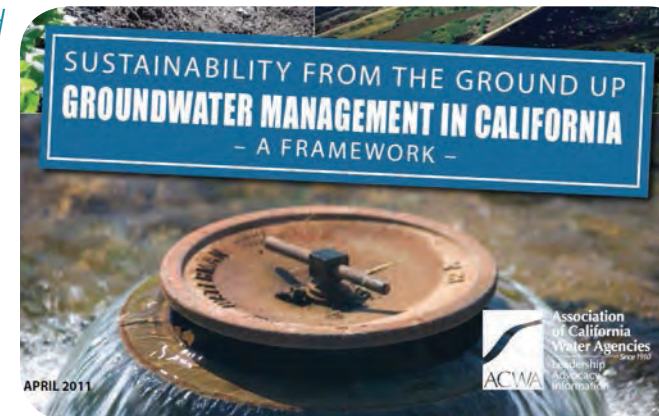
Groundwater Recharge Potential at Two Future Lakes Evaluated

In May 2011, Zone 7 submitted to the state the final Local Groundwater Assistance Grant report on an evaluation of whether two quarry pits (Lakes C and D in the future Chain of Lakes) could be used as key groundwater recharge basins.

Even while noting the agency won’t be able to use the lakes until mining ceases in 2030 or later, the report states, “The results of this study suggest that Lakes C and D can be effective recharge ponds, especially for recharging water into the upper portion of the Lower Aquifer.”

Zone 7 had received a \$250,000 Local Groundwater Assistance Program grant to conduct the investigation. All of the technical work was done in-house without use of consultants. A Department of Water Resources official said the report represented “really cutting edge work and a very high quality report the agency should be proud of.”

“Zone 7 has curbed groundwater pumping and replenished basin aquifers to levels that can be managed sustainably.”



Water Quality

In 2011, all drinking water that Zone 7 delivered

to its retailers serving Pleasanton, Livermore, Dublin and Dougherty Valley again met regulatory standards and, in almost all cases, the quality was much better than required.

For an additional margin of safety and to address local concerns regarding such things as taste, odor and hardness, Zone 7's Water Quality Management Program – developed jointly by Zone 7 and its stakeholders, including its retailers – establishes even more stringent internal targets and policies for both treated (drinking) and untreated (agricultural) water quality. These targets help guide operations and help provide a basis for upgrading or improving facilities and providing new facilities when necessary. In addition to ongoing internal agency planning, Zone 7 also works closely with various organizations to protect the quality of source water locally and at the state level.

Two significant future water quality improvement projects are identified in Zone 7's Capital Improvement Program (CIP). Ozone treatment at the Del Valle and Patterson Pass Water Treatment Plants, providing benefits that include taste and odor improvements, will be scheduled based on funding availability, and the next phase of demineralization will be evaluated as part of updating the Salt Management Plan to include nutrients potentially present in groundwater.

safe
water
commitment to quality

Partnership for Safe Water

As another example of its commitment to water quality, Zone 7 in 2011 submitted a report to the American Water Works Association's Partnership for Safe Water Program showing that the Del Valle Water Treatment Plant (DVWTP) surpassed water quality goals for turbidity set forth by the Partnership for Safe Water Program. In 2009, Zone 7 received a national Directors award on behalf of the DVWTP for maintaining the Partnership for Safe Water for 10 consecutive years. Annually renewing the Partnership for Safe Water requires Zone 7 to provide the plant performance results in a narrative report, including data analysis.

In addition to the achievement by Operations for DVWTP, Patterson Pass Conventional and Patterson Pass Ultra-Filtration plants' performance data was also submitted in 2011 to the Partnership Program. Both plants exceeded Partnership for Safe Water goals.

BENEFIT: Surpassing water quality standards

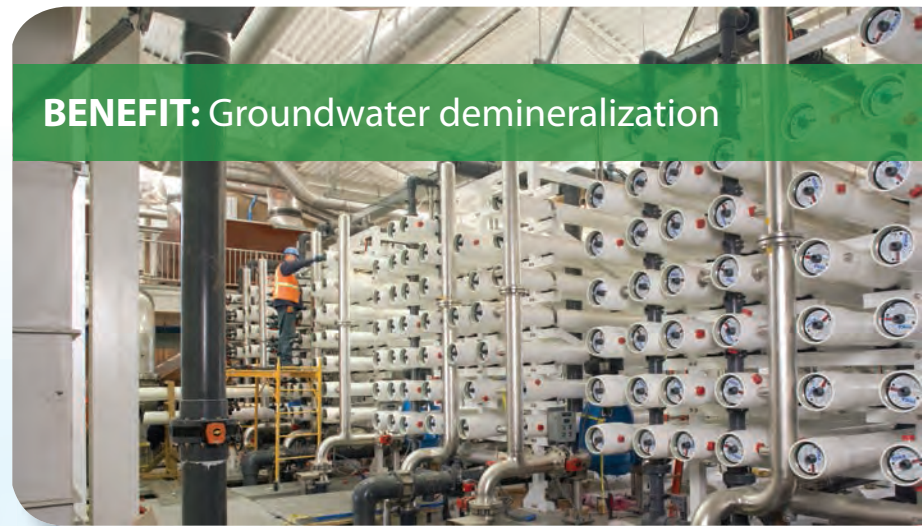


Reducing Water Hardness The Mocho Groundwater Demineralization Plant went into operation in late summer 2009 and continued successfully fulfilling its mission in 2011. Plant operation, combined with increased conjunctive use of groundwater and surface water supplies, slows the buildup of salts and minerals in the local groundwater basin, while improving delivered water quality. In 2011:

- ▶ One of the water quality constituents, Total Dissolved Solids (TDS), was reduced from over 600 milligrams per liter (mg/L) in the groundwater to approximately 30 mg/L by the demineralization plant's reverse osmosis membranes. Because the "soft" RO permeate can corrode pipes, it was blended with bypassed groundwater, raising the TDS back to approximately 300 mg/L before entering into the distribution system.
- ▶ Water hardness, measured as calcium carbonate, was reduced from over 400 mg/L to approximately 200 mg/L after blending with bypassed groundwater.
- ▶ Approximately 1,800 acre-feet (nearly 600 million gallons) of groundwater was demineralized.
- ▶ Approximately 2,250 tons of salt was exported out of the Valley as brine.

Other Salt Management Tools

Another way that Zone 7 works to manage salt buildup in the groundwater basin involves "conjunctive use" of its groundwater and surface water resources. Zone 7 typically releases some imported State Water Project supplies into Arroyo del Valle, Arroyo Mocho and, when water is plentiful, to Arroyo las Positas, to artificially replenish groundwater levels. In 2011, 7,100 acre-feet (more than 2.3 billion gallons) of imported water was recharged for this purpose. In addition to diluting the natural hardness of groundwater, recharging the groundwater basin also stores water supplies for use during droughts and during summertime peak periods, without subjecting that water to the evaporative losses that occur in surface water reservoirs.



In 2011, nearly 600 million gallons of groundwater was demineralized.

Zone 7 provides for the regional management

of flood and storm waters within eastern Alameda County in order to protect life and property from damage and destruction while enhancing habitat.

The Flood Protection Program addresses emergency repairs, routine maintenance, and rehabilitation projects involving approximately 37 miles of local flood-protection channels currently owned by Zone 7. It also includes planning of capital improvements, design and construction of large maintenance projects, and review of new developments — both to evaluate potential impacts to Zone 7 flood control facilities and to further potential partnerships on projects identified in the Stream Management Master Plan.

OBJECTIVE: Maintenance to prevent minor problems from becoming major floods

Maintenance is one of the Flood Protection Program's highest priorities and involves routine/major/emergency upkeep and repair of Zone 7's channels and other

flood protection facilities. Such activities are directed toward preventing minor storm problems from becoming major flood problems, minimizing unnecessary damage to private property through proactive planning, preserving and maximizing stormwater-carrying capacity of existing creeks and channels, and post-storm rehabilitation of flood control facilities damaged in major downpours.

In 2011, staff identified, designed and provided project and construction management for the repair and/or renovation of several projects. There were:

- ▶ 19 bank repairs involving a total 1,361 linear feet of banks
- ▶ 11 road and drainage improvement projects for a total 1,198 linear feet of roadwork
- ▶ 565 linear feet of concrete channel lining and outfall structure repairs.

In addition to doing what we can to manage flood and storm waters, and responding to public inquiries about flood control activities, Zone 7 in 2011 continued to comply with regulatory agencies such as the California Department of Fish and Game and the Alameda County Clean Water Program. Staff also worked with the Cities of Dublin, Pleasanton and Livermore, as well as the East Bay Regional Park District, in trail-use collaboration.



With safety being a top priority, in 2011 crews performed an emergency 60-foot-long bank repair along a portion of South San Ramon Creek owned by Zone 7, located behind Dublin High School.



Stream Management Master Plan

Zone 7 in 2011 laid the groundwork for updating its Stream Management Master Plan (SMMP). The SMMP was originally adopted in 2006, outlining a new approach to providing regional flood protection by addressing holistic management of local streams. It also was the basis for a 2008 update of Zone 7's Development Impact Fee (DIF) for flood protection.

The SMMP update will address new California Environmental Quality Act (CEQA) requirements for climate change analysis and incorporate recent watershed-wide changes, including potential steelhead access to the northern part of the Alameda Creek Watershed. This update will also help facilitate any future revisions to the DIF.

As part of the SMMP update, Zone 7 staff focused in 2011 on creating, calibrating and running new service area hydrologic and hydraulic models; investigating innovative techniques for stormwater management, including enhancing natural floodplains and vegetated stormwater channels; and applying for grants.

In addition, Zone 7, in partnership with the Urban Creeks Council, was awarded a \$190,000 grant in November 2011 from the California State Coastal Conservancy for environmental studies in the watershed to assist in the update of the SMMP and subsequent update of the DIF. The grant will provide money to conduct studies of existing bird and fish populations, help guide stream corridor design decisions, and provide Zone 7 with some of the information needed to address climate change in upcoming CEQA analyses, as is now required under state law. Another grant application involving stream-related projects that benefit flood protection is pending.

Zone 7 and the City of Livermore have collaborated to integrate the SMMP and the El Charro Specific Plan. In 2011, Zone 7 finalized a \$10 million Partnership Agreement with the City for flood protection improvements within the El Charro Specific Plan Area, and the city completed a majority of the improvements. These improvements are intended to function in conjunction with the regional flood control system.

Portions of the Arroyo de la Laguna are good examples of naturally vegetated stormwater channels, which Zone 7 is seeking to emulate elsewhere in its service area.

Environmental Strategies

Solar Project Zone 7 in 2011 took a big step in both helping the environment and reducing energy costs through construction of a ground-mounted solar power installation project at its Del Valle Water Treatment Plant.

In partnership with Zone 7, Borrego Solar Systems Inc., a leading designer and installer of grid-tied solar electric power systems, designed and built, and now operates and maintains, the 348-kilowatt photovoltaic energy-generation system at its own expense. Zone 7 buys all of the electricity the plant produces at a fixed rate. The solar panels produce about a third of the energy Zone 7 uses in water-treatment operations at the Del Valle plant. Zone 7's estimated reduction in energy costs is expected to exceed \$800,000 for the 20-year term of the agreement. The savings could be substantially higher if conventional power costs escalate faster than the conservative projections.

All of this will save Zone 7 water ratepayers money by reducing operating costs. In addition, by reducing reliance on conventional power plants that burn fossil fuels, the project cuts annual greenhouse gas emissions that contribute to global climate change.

BENEFIT: Reducing costs with renewable energy



Habitat Conservation Strategy

The Zone 7 Board in 2011 formally accepted the East Alameda County Conservation Strategy to use as guidance when reviewing and implementing Agency water-supply and flood-protection projects and maintenance activities. In the past, project mitigation has been done on a case-by-case basis, resulting in piecemeal conservation that was more time-consuming and expensive, and less effective at preserving and connecting the open space and natural habitat areas found in eastern Alameda County.

The Conservation Strategy provides a regional approach to habitat conservation in order to address conflicts between development and infrastructure projects and the continued survival of endangered or threatened species. Developing the Conservation Strategy was a collaborative effort with local municipalities and other local agencies as well as federal and state resource agencies. The Conservation Strategy, while not binding, will be used by the resource agencies to streamline the environmental permitting process. Work on implementing the Conservation Strategy will take place in 2012 with a goal of providing an annual update on the progress in meeting the goals and objectives set forth in the document.

Alameda County Fisheries Workgroup

Meanwhile, Zone 7 has been serving as Chair of the Alameda Creek Fisheries workgroup, a long-standing collaboration of over a dozen agencies and non-profit organizations that formed to address the local implications of the listing of steelhead trout as a threatened species under the federal Endangered Species Act.

On a separate but related front, the National Marine Fisheries Service is preparing a Recovery Plan to address the threatened steelhead trout species within its Central California Coast range. Zone 7 was among the earliest signatories to collaborate with NMFS to provide relevant information about local steelhead habitat. Nearly 30 agencies have signed on and Zone 7 has hosted two workshops for these collaborating agencies to interact directly with NMFS staff.



Outreach

Our presence at community events, such as the Family Earth Festival in Pleasanton pictured to the right, is one of many ways that Zone 7 keeps the community informed about relevant issues related to water supply and flood protection. Here are other ways we reach out:

- ▶ **Water Science in the Schools** – For 2011, there were about 325 classroom presentations reaching 7,980 students addressing such topics as groundwater education and stormwater pollution prevention. All presentations included a water conservation message. In addition to classroom presentations, the program included five creek walks.
- ▶ **Website upgrade** – The website, at www.zone7water.com, was upgraded and content was reorganized to make it easier for users to find the information they're looking for.
- ▶ **Electronic newsletters** – In addition to communicating with the constituents by mailing out periodic Waterways newsletters to more than 80,000 homes and businesses, Zone 7 in 2011 launched an electronic newsletter as a cost-effective way to communicate with interested people. Join the growing list of subscribers by signing up for the newsletter on Zone 7's website.



Zone 7 hosted the Bay Area Water/Wastewater Workforce Development's Third West Coast Water Utilities Workshop. About 70 people attended the workshop, which included presentations on the use of technology to support staff training and optimize use of available staffing.

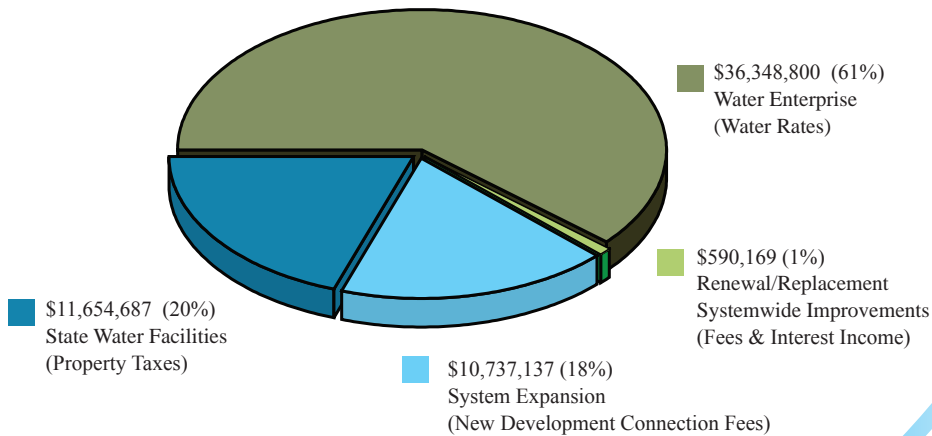


In 2011, Zone 7 again provided special awards judges to evaluate water-related projects at the Tri-Valley Science and Engineering Fair.

Financial Information – Water System

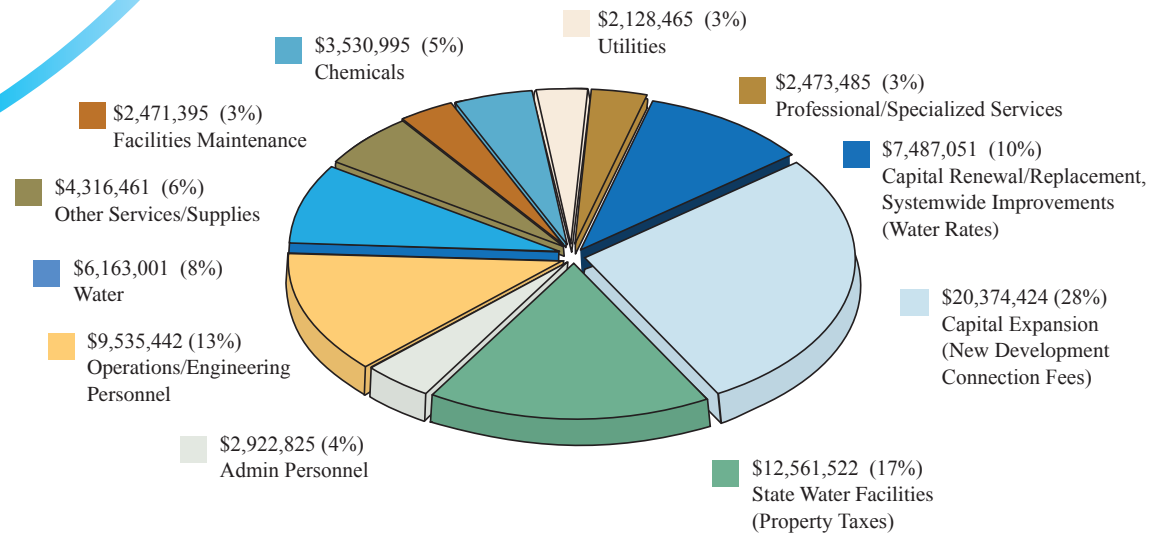
Budget FY 2011-12

Water Supply, Reliability & Quality Revenue Total: \$59,330,793



Water rates pay to operate, renew, replace, maintain and improve the existing treated water system. Development fees pay for system expansion.

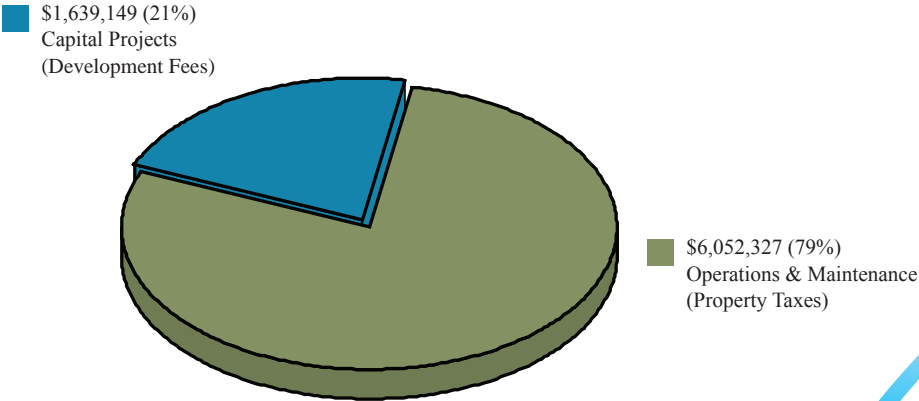
Water Supply, Reliability & Quality Operating & Capital Expenses Total: \$73,965,066



Financial Information – Flood Protection System

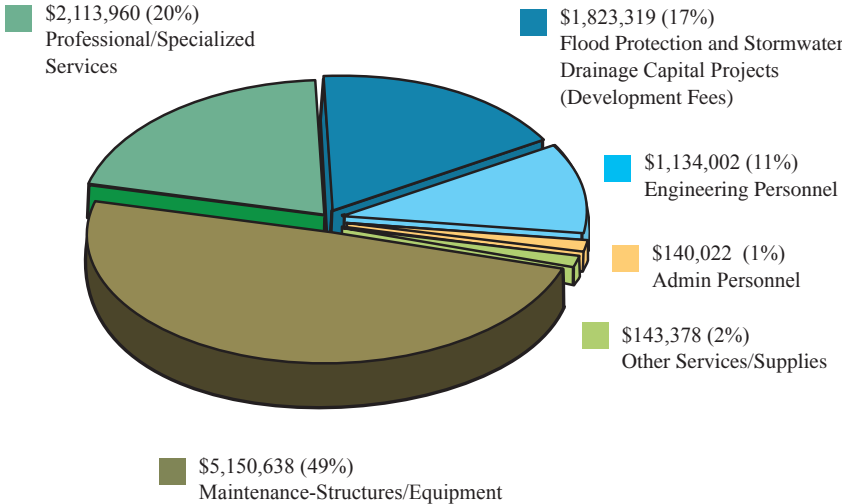
Budget FY 2011-12

Flood Protection Revenue Total: \$7,691,476



Property taxes support maintenance of the existing flood-protection system.
Development fees pay for expansion.

Flood Protection Operating & Capital Expenses Total: \$10,505,319



Going Solar!

Executive Staff

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Kurt Arends, *Assistant General Manager, Engineering*

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