



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

NOTICE OF REGULAR MEETING OF BOARD OF DIRECTORS

DATE: Wednesday, October 19, 2011

TIME: 7:00 p.m.

LOCATION: Zone 7 Administration Building

100 North Canyons Parkway, Livermore, California

Any member of the audience desiring to address the Board on an item under discussion may do so upon receiving recognition from the President. After receiving recognition, please step to the podium and state your name and address.

In compliance with the Americans with Disabilities Act, the meeting room is wheelchair accessible and disabled parking is available at the Zone 7 Administrative Building lot. If you are a person with a disability and you need disability-related modifications or accommodations to participate in this meeting, please contact the Zone 7 Board Secretary, Judy Rector, at (925) 454-5053 or fax (925) 454-5724. Notification 48 hours prior to the meeting will enable Zone 7 to make reasonable arrangements to ensure accessibility to this meeting. {28 CFR 35.102-35, 104 ADA Title II}

A G E N D A

1. Call Meeting to Order
2. Pledge of Allegiance
3. Citizens Forum

This is an opportunity for members of the audience to speak on an item not listed on the agenda. The Board cannot deliberate or take action on a non-agenda item unless it is an emergency as defined under Government Code Section 54954.2.
4. Minutes of the Regular Meeting of September 21 and Special Meeting of October 5, 2011
5. Consent Calendar
 - a) River Parkways Grant Application for the Arroyo Mocho – Stanley Reach Project
 - b) Public Entity Resolution for Banking Services
 - c) Request By President Figuers For Authorization To Attend ACWA's 2011 Fall Conference in Anaheim
6. Staffing Update:
 - a. New Employee Introduction
 - b. Employee of the Month Recognition
7. Treated Water/Recharge Rates for 2012

Recommended action: Adopt resolution.
8. Untreated Water Rates for 2012

Recommended action: Adopt resolution.

9. Draft Fiscal Year 2012/13 Capital Improvement Program:
 - 10-Year Water System Plan
 - 5-Year Flood Protection Plan

Recommended action: Adopt resolution.

10. 2011 Municipal & Industrial Connection Fee Program Update

Recommended action: Adopt resolutions.

11. Committees – None.

12. Items for Future Agenda – Directors

13. Reports – Directors

- a. Written report by Director Quigley
 - b. Verbal reports

14. Staff Reports (Information items. No action will be taken.)

- a. General Manager's Report
 - b. Recent & Upcoming Public Outreach Activities
 - c. Legislative Update
 - d. Status Report on Separation Efforts
 - e. Quarterly Update of Expansion Fund
 - f. Verbal Reports

15. CLOSED SESSION

- a) Conference with Labor Negotiators:
Agency Negotiator: G.F. Duerig
Employee Organizations: Alameda County Management Employees Association; Alameda County Building and Construction Trades Council, Local 342, AFL-CIO; International Federation of Professional and Technical Engineers, Local 21, AFL-CIO; Local 1021 of the Service Employees International Union, CTW; Unrepresented Management.

16. Open Session and Report Out of Closed Session

17. Adjournment

18. Upcoming Board Schedule: (All meeting locations are in the Board Room at 100 North Canyons Parkway, Livermore, California, unless otherwise noted)

- a) DSRSD Zone 7 Liaison Meeting: November 14, 2011, 4:30 p.m. at Zone 7
 - b) Regular Board Meeting: November 16, 2011, 7:00 p.m.

Materials related to an item on this agenda that have been provided to the Board less than 72 hours prior to the meeting are available for public inspection at the Zone 7 office at the time of, and prior to, the meeting and at www.zone7water.com. All other material otherwise provided to the Board will be available at the public meeting.

MINUTES OF THE BOARD OF DIRECTORS
ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
REGULAR MEETING

September 21, 2011

President Figuers called the regular meeting to order at 7:00 p.m. The following were present:

DIRECTORS: SANDS FIGUERS
JOHN GRECI
AJ MACHAEVICH
CHRISTOPHER MOORE
SARAH PALMER
RICHARD QUIGLEY
BILL STEVENS

DIRECTORS ABSENT: NONE

ZONE 7 STAFF: JILL DUERIG, GENERAL MANAGER
KURT ARENDS, ASSISTANT GENERAL MANAGER, ENGINEERING
JOHN YUE, ASSISTANT GENERAL MANAGER, FINANCE
TAMARA BAPTISTA, FINANCIAL AND SYSTEMS SERVICES
MANAGER
JAVIA GREEN, STAFF ANALYST, FINANCE
AMPARO FLORES, ASSOCIATE CIVIL ENGINEER
TOM ROOZE, ASSOCIATE GEOLOGIST
JUDY RECTOR, BOARD SECRETARY

COUNSEL: REN NOSKY, DOWNEY BRAND

Item 3 - Citizens Forum

Larry and Joyce Lascurain, 3205 Omega Circle, Pleasanton, told the Board they have had what they believe are calcium deposits in their water. They brought in a plastic glass with white deposits on it that was an example of dishes put through their dishwasher on Labor Day weekend. They are concerned about what they are drinking and eating when using water in their house. Dan Martin, City of Pleasanton, was present and said that the City of Pleasanton has had some complaints regarding dishes washed by dishwashers and their Water Quality Technician is working on the complaints.

After looking closer at the sample glass that was provided, Director Palmer asked them if they noticed it more on plastic dishes than glass and reassured them that the deposits are not unhealthy.

Director Greci suggested that for peace of mind they leave the glass and the City of Pleasanton will test it to let them know exactly what it is on the plastic glass.

Sandy Yamaoda, 3405 Byron Court, Pleasanton, attended the board meeting because an increase in water rates is being considered.

General Manager Jill Duerig asked if people with comments about the water rates can wait for the discussion on water rates later in the agenda. It would be more helpful to have those public comments at the time water rates are being discussed.

Item 4 - Minutes of the Regular Meeting of August 17, 2011, and Special Meeting of August 31, 2011

Director Quigley revised his comments in the August 17, 2011, minutes to read:

The water source is a blend through a feeder and a tunnel from the Colorado River, a significant influence and will continue to be, through the California Aqueduct and delivered through the San Diego canal.

Carol Mahoney and Mike Wallace were added as attendees at the Special Meeting/Board workshop on August 31, 2011.

On a motion by Director Machaevich and seconded by Director Quigley, the minutes of the Regular Board meeting of August 17, 2011 and the Special Board Workshop of August 31, 2011, were approved by a voice vote of 7-0.

Ms. Duerig recommended that Item 11 be heard before Item 10 because it is helpful for staff to talk about the CIP program prior to talking about the connection fee program.

Item 5 - Consent Calendar

President Figuers told the Board there is no requirement that a roll call vote be taken on items that have money in them, it is just a tradition at Zone 7. If the Board wishes, they can use a non-roll call vote for money (voice vote) but he feels a roll call vote puts everyone on record, it is a tradition, and it forces a Director to focus on the reason for their vote. The resolutions were approved by a voice vote of 7-0.

Resolution 11-4112 Approved Director Quigley's request to substitute at the off-site ACWA Board Meeting held in Chico, California, for Region 5 board member, Vice-Chair Katy Foulkes. (Item 5a)

Resolution 11-4113 Approved authorizing the General Manager to execute the Memorandum of Understanding and affirm Zone 7's participation in BAFPA and financial contributions for annual dues, projects, studies, and/or grants for amounts not to exceed \$25,000. (Item 5b)

Resolution 11-4114 Approved the reimbursement of actual and necessary expenses associated with John Gonzales and Paul Zullo's attendance at AWWA's 2011 Fall Conference in Reno, Nevada, October 17-20, 2011. (Item 5c)

Resolution 11-4115 Approved authorizing the General Manager to negotiate and execute an agreement with Vulcan Materials Company for the discharge of groundwater into the Chain of Lakes. (Item 5d)

- Resolution 11-4116 Approved authorizing the General Manager to negotiate and execute Amendment 4 to the Agreement for Dry Year Water Purchase Associated with Yuba Accord (A08-98-CAL). (Item 5e)
- Resolution 11-4117 Approved the reimbursement of actual and necessary expenses associated with Robyn Navarra's out-of-state travel and attendance at the WaterSmart Innovation 2011 Conference in Las Vegas, Nevada, October 4-7, 2011. (Item 5f)

Item 6 - Staffing Updates

Item 6 (a) - Congratulations to Retiree

General Manager Jill Duerig congratulated Vince Cirelli on his retirement from Zone 7 after 21 years of service. He has been a stellar Water Plant Operator and one of those people who have just been great to work with, very knowledgeable, a hard worker, diligent, and an excellent mentor to our newer and younger Operators. Director Palmer moved and Director Quigley seconded the motion honoring Vince for his years of service. Resolution No. 11-4118 was approved by the Board with a voice vote of 7-0.

Item 6 (b) – New Employee Introduction

Aaron Webster was introduced to the Board. He joined Zone 7 on August 22, 2011 as an Instrument Technician working for the Maintenance Section out at Del Valle Water Treatment Plant and reporting to Tim Brown. Aaron has almost 10 years of technician experience including installation, maintenance, and repair of instruments and control equipment, repair and upgrade of a recycled water distribution control system, and maintenance of various large machines. Aaron worked for the City of San Jose as an Instrumentation Technician in their Water Pollution Control Plant. He holds an Associate's degree in Electrical Power Engineering from Mid-State Technical College.

Item 6 (c) - Employee of the Month Recognition

Amparo Flores, Associate Civil Engineer, was re-introduced to the Board. Ms. Duerig said how lucky Zone 7 is because Amparo had worked for Zone 7 prior to her resignation to go to Cambridge to get her Ph.D. but then she returned to Zone 7. She has a tremendous, upbeat attitude and helps everybody. She just completed Zone 7's Urban Water Management Plan which was the first accepted in the State and it was completed using in-house expertise.

Item 7 – Project Authorization for Groundwater/Salt Management Plan Updates and Approval of Amendment 1 to the Contract with HydroMetrics Water Resources, Inc.

Assistant General Manager, Engineering, Kurt Arends explained to the Board that since Zone 7's currently approved SMP does not address nutrient management and the CEC monitoring, an update of the SMP is necessary to satisfy SWRCB's Recycled Water Policy requirements. The SMP Update will also provide an opportunity to re-evaluate the salt management strategies included in 2004 SMP and perform more rigorous analysis of the basin implications of the water supply portfolios identified in Zone 7's 2011 Water Supply Evaluation. Because the SMP was

incorporated into the GWMP, staff recommends updating the GWMP and SMP as a single effort. The Update effort is anticipated to take approximately 2.5 years and include stakeholder involvement and the appropriate CEQA actions.

The update is estimated to cost approximately \$1.45 million, including an estimated \$500,000 for CEQA analysis assuming the need for preparation of an EIR. The majority of the project will be completed by in-house staff; however, the GW model improvement effort will require consultant expertise and additional computer-processing capabilities, estimated to be approximately \$200,000. HydroMetrics Water Resources, Inc. (HydroMetrics) was retained earlier to assist staff in planning the groundwater model improvements.

This effort was not anticipated for this fiscal year but is required to be done by 2014. Staff wants to get started now because it will be a significant effort and require a lot of input with stakeholders. Because it was not budgeted for this fiscal year, staff is requesting an appropriation of \$400,000 in this year's budget to get started. Staff recommends amending the current contract by \$200,000 to complete the model and work with HydroMetrics' staff.

Director Palmer asked if the \$200,000 is spread out until February 2014? Mr. Arends responded that the majority of the modeling will happen up front. This contract is to develop the model to better capture the technical issues with the groundwater basin and expand its capabilities.

Director Stevens asked why we need an EIR? Mr. Arends explained that it depends upon whether we have to implement different projects or take action, and then an impact analysis of those actions would be required.

Ms. Duerig said it is not unlike the CEQA analysis we have done for other master plans such as the Stream Management Master Plan or the Well Master Plan. We don't know yet whether a full EIR is needed because there are different levels of analyzing CEQA and if there is no impact, then only a negative declaration is needed. If there are significant impacts that cannot be mitigated, then you might need a mitigated negative declaration or an EIR.

Director Quigley stated why he is in favor of voting for it: it will impact benefits for expanding the use of recycled water; satisfy requirements of the state water recycling policy, which is important to do; and it will calibrate the flow model and incorporate stream and arroyo flow.

Director Palmer stated that with \$200,000 you can buy a lot of software. Mr. Arends responded that it is not just purchasing software but actually the expertise to take data and input into new software and calibrate it. It takes a lot of computing power so it will be done on HydroMetrics' larger computer systems.

Director Quigley asked Project Manager Tom Rooze if the groundwater model we are using now dates back to 1974? Mr. Rooze confirmed that it was built a long time ago.

Director Palmer asked if they will piggyback on any GAMA (Groundwater Ambient Monitoring & Assessment Program) information? Mr. Rooze responded that he will be working with the Department of Water Resources and use whatever information they have. Director Palmer remarked that they have done a lot with groundwater modeling, age dating, and salt so there is a lot of information already available.

Director Quigley moved and Director Moore seconded the motion authorizing the project and an additional appropriation of \$400,000 for FY 11/12 along with an amendment to the contract for HydroMetrics for a not-to-exceed amount of \$200,000 to perform the remaining tasks within the scope of work. Resolution 11-4119 was approved by a roll call vote of 6-0 with Director Palmer abstaining.

Item 8 - Preliminary Treated Water Rate for 2012

John Yue, Assistant General Manager, Finance, introduced the preliminary discussion for the 2012 treated water rates. The item will be continued to October 19, 2011, for a final decision and adoption. The treated water rate development actually started at the June 15th board meeting when the Asset Management Program update was adopted. That determined the amount of contributions from water rates for the renewal, replacement and system-wide improvements of the existing infrastructure.

Staff met with Retailers on August 22, to give them a preview of the treated water rates, Capital Improvement Program (CIP) for FY 2012-2013 and water connection fee. The Finance Committee met on August 29 to discuss the same items and the discussion was continued until the September 13 Finance Committee meeting where the Committee moved to bring to the full Board the discussion on the recommendation of a 5% increase for the 2012 treated water rate along with the other items. Staff also received two phone calls from citizens regarding water rates. The first one called to express her concern on the effects of increasing prices, especially for seniors. She commented that there should be a break given to the seniors trying to make it on their own. The second caller commented on the less water you consume, the more you pay and the general inefficiencies of public agencies. He was against rate increases in general. Staff responded with return calls to both.

Tamara Baptista, Financial & Systems Services Manager, gave a brief presentation on the treated water rate for 2012. Two major items she discussed were the Asset Management Program (AMP) and reserves. A good asset management plan is good for overall asset management planning. It stabilizes the long-term impact on water rates and increases system reliability. The funding requirement for AMP comes from both the expansion fund, Water Enterprise (Fund 73) and Fund 72 which is split between two programs, renewal/replacement and system-wide improvements. The next AMP update is in five years in 2016.

Ms. Baptista showed a chart of the annual use of reserves. Zone 7 revenues should cover the operating expenses and the transfer (annual contribution to the renewal/replacement and system-wide improvements fund from the water enterprise fund), so in years where we don't generate enough revenue to cover our expenses and the transfer, we have to use reserves.

Zone 7 reduced our operating expenses using cost-savings initiatives. For the current year the transfer is estimated to be \$5 million, \$400,000 less than the previous year's transfer. The AMP funding level is \$11.4 million but we don't reach that until FY 16/17 so we are not at current funding levels. Funding levels are already lower than the 2004 AMP study and also for 2011.

We have had deficits totaling \$4.3 million where revenues do not cover operating expenses and the required transfer to the capital program. All alternatives continue to use reserves to keep water rates low.

The Finance Committee asked, “What if we have a 0% rate increase?” There will be a reduced level of service; there will be a reduced reliability of infrastructure; and we will deplete all of our reserves below the Board-designated reserve policy unless we have drastic, double-digit rate increases in the near future.

The impact of deferring some of our capital asset repairs are: asset failures can result in service disruption, create unsafe conditions for employees and the general public, and be costly.

The Finance Committee then recommended a 5% increase resulting in a new rate of \$945/acre foot. The current year for 2011 is \$900/acre foot so it is a \$45 increase per year for our wholesale rate which translates into \$1.88 per month per customer if 100% passed on through our Retailers to end-users.

Director Moore said that during the Finance Committee meetings, the discussion centered on making sure that the Tri-Valley has a reliable, safe and dependable water supply, but in order to maintain that system you have to fund it. We have funded it enough in the past so that we can anticipate and make sure repairs and maintenance are funded at an appropriate level. We’re also reducing our costs. Five percent is the rock bottom while keeping us comfortable with our reserves. He asked Ms. Baptista to explain the reserves.

In March of 2005, the Board adopted a reserve policy and Zone 7 has Board-designated reserves. Staff makes sure our budgets maintain those reserve levels:

- Emergency Operating Reserves (our Water Enterprise O&M) which is 20% of our operating expenses.
- Rate Stabilization Reserves in case of a major drought or disaster and to help mitigate any rate fluctuations, currently set at \$5 million.
- Unrestricted Reserves.

Director Moore continued that the Retailers had asked why all of those reserves were needed, and do you need to have them at that high of a level? It is about Board policy but sooner or later you are going to run out of reserves if you continue to use them but we have a good reserve policy with a number of components. After the second Finance Committee meeting, he was clearer about what reserves Zone 7 has, in what account, and for what reasons and that is why he was supportive of the 5% increase.

Director Quigley noted the \$1.88 per month per customer for a 5% rate increase but he asked Ms. Baptista how much a 7.5% rate increase would cost? She replied \$2.83 per month if passed on 100% through the Retailers to the citizens.

Director Stevens commented to the public that the Asset Management Plan was adopted in 2004 because we have water treatment plants, pipelines, vehicles, and buildings but never budgeted for their maintenance in the past – they break and we fix it. It is a good management policy to maintain your assets. In 2004 we were told that we needed to budget \$10 million per year for managing assets. We have been under-funding our Asset Management Plan because every year the Retailers say we do not need that much in our AMP so we re-did the study this year and the new annual target is \$11.4 million. If you keep pushing this forward, your kids are going to pay more than we are. We are trying to be proactive and do the right thing. The public needs to understand that the Asset Management Plan and Reserves are the driving forces in rate increases

and if you don't do anything and there is a huge pipeline failure, rates could go up 20%. We are trying to plan ahead and reduce costs while costs are increasing.

Director Machaevich said the Finance Committee took a lot of time to go through the information but from a utilities' point of view, it is reasonable to recommend 5% to protect the infrastructure and if a serious disaster happens, we will have most of the funds to fix it. Zone 7 likes to live within their means and not borrow and the Board is trying to do it the right way instead of borrowing to make ends meet and pay interest on those monies. He hopes the Board has heard what the Finance Committee has recommended and will come to the same realization that they cannot do a 0% raise because it puts Zone 7 in a risky situation down the road and we need to protect the infrastructure and make sure our costs are met.

Director Palmer stressed the importance of infrastructure protection as a national problem but the Board is trying to protect Zone 7's and make sure that they take into account having to replace much of the infrastructure in the foreseeable future.

Director Greci stated that he has sat in on 18 years of rate increases and discussions. The Board has to plan for system degradation and for unforeseen problems. We try to be as fiscally conservative as we can because we represent the public. We try to do it in a manner so we can give you a reliable source of water and a product that is safe. Eighty percent of our water comes from the Delta but we don't have control over it. The public doesn't understand infrastructure, maintenance, delivery responsibilities, and everything that goes with making that water dependable. This Board has been very proactive and has a close working relationship with the Retailers who understand more than anybody how we work and how we do it. We are a wholesaler, we pass it on to the Retailers, and they supply you but there is a big infrastructure for us to get it to them. Your Retailers have the same responsibilities as us as far as their delivery systems. Their maintenance is also part of their rates because if they had an outage and no way to fix it, the public would not have any water until someone could come up with the money. We are trying to educate the public on how our business works, the rationale for doing our increases, and what we represent to this community. We are also ratepayers in this Valley and pay the same rates you do.

President Figuers opened it up for public comments.

Dan Martin, City of Pleasanton Utilities Superintendent, was representing Pleasanton as an official representative. He wants to be consistent with Pleasanton's position regarding rate increases and again say that they do not support a rate increase at this time. He suggested another way for the Board to look at the Asset Management Plan. The AMP is a plan and the goal is to perform these maintenance repairs. Pleasanton's position is that right now we have to look at the projects we would like to do, the money we have, and prioritize. Currently the AMP is not funded at a zero level so if we don't do a rate increase, it is not as if important repair and replacement projects are not going to get done; but don't talk about adding more projects to those that need to be done. The characteristic that the AMP is a single, monolithic project that if not fully funded, the whole thing will fall apart is misleading to the public. Zone 7 has over 200,000 people who are your customers but they don't receive a bill from Zone 7 and don't think of Zone 7 that way. They interact with the Retailers as the supplier. As much as he has tried to educate the public, they don't understand that when things happen at Zone 7 and he has to pass the cost on to them, that is not within his control. They are looking at the City of Pleasanton when that bill comes and that charge is more. They call him and tell him how difficult things are for them

right now and how hard it is to meet their bills every month. He wants the Board to know that even though those calls don't come to Zone 7, those people are real and he cannot express how significant even a small rate change can be. Once those rate increases reach people, there is an impact and people are hurting. Right now is not the time for those increases. He wants to make sure Pleasanton delivers a consistent message regarding that to this Board.

Director Palmer asked when would be the time? Mr. Martin responded that some economic indicators are very encouraging such as they are seeing an increase in commercial occupancy. Folks are getting used to the new norm that water is a commodity and the price does go up but right now the sensitivity is high. If he has to explain to them why there is an increase and he does not feel that it is appropriate, how does he do that?

Director Quigley mentioned the costs that Zone 7 has beyond their control including water delivery and chemical costs and that many things have been done to reduce costs, for instance, the Delta component to begin to fix our supply, the enlargement of the South Bay Aqueduct to make it more safe, secure and robust, and the new filtration systems that we put in. He added that many of the capital projects in the CIP have been delayed significantly so this Board has done a lot of work to keep costs down in addition to adopting a pay-as-you-go program. We want to make sure we get the right amount to cover our costs and, in the past several years, we have been deficit spending and holding rates lower than they really should have been.

Darren Greenwood, Assistant Public Works Director for the City of Livermore and current Chair of the Tri-Valley Retailers Group, focused his comments on three main areas. The rate increases done last year, this year and next year are unlike any done in the past because of economic conditions. He wants to be clear about what the Retailers say about Zone 7's cost controls. None of their comments are directed at operational costs. It is not about deferring projects as those have been done appropriately. Most comments on the AMP now and in the past four years have to do with planned system-wide improvement projects. There are two things: the renewal/replacement which the Retailers have been supportive of. They want Zone 7 to keep their assets maintained and be able to supply the Retailers with water. What they are uncomfortable with are the system-wide improvement projects; \$2.5 million a year is set aside for potential improvements that might or might not come. Retailers have consistently commented that they object to having this money in there for projects that are not yet identified. The Retailers are not talking about dipping into Zone 7 operational reserves or the rate stabilization fund, but in addition there is \$7.5 million above and beyond policy targets for reserves sitting in the bank. That is the money the Retailers feel is available to spend now to put off a potential rate increase and the Retailers are saying because times are tough, it is a good time to use that money rather than have a rate increase. The objection is that Zone 7 is still proposing a rate increase even with reserves at the policy level.

The 5% increase does spend down about \$2.5 million of the undesignated fund balance but still leaves over \$5.6 million that could be used to cut the rate increase with over \$11.5 million in all the designated reserves that are at policy levels. The Retailers emphasis on minimizing or eliminating a 2012 rate increase is intended to provide immediate rate relief in hard economic times and to allow time for Zone 7 and the Retailers to review and reconfirm the need for CIP projects. The Retailers are not in favor of this big amount of money being set aside for unknown projects and the money being set aside for one known project, Taste & Odor Improvements, is causing them the most concern. When the Retailers approved putting it on the CIP list, it was in different economic times for a project they no longer feel they can support. One of the reasons

we would like to cut the rates this year is to go back and look at that project and confirm that it is still viable given the economy. If it is, we need to find a way to pay for it; if it is not, it comes off the CIP list and results in a big change to that AMP transfer, in our opinion. The Retailers are not comfortable with Zone 7 trying to accumulate funds for the Taste & Odor project until we have a chance to revisit that economic viability because it is such a big expense. Continuing to adopt rate increases to accumulate money for projects that are years off without going back and confirming that they are viable is irresponsible.

Brent Cromar, Pleasanton resident, sells wastewater and water treatment equipment. He suggested that if you have a fixed cost, you need to sell more of your product and market it. Bring people into the Valley so they can use more of the product and buy it cheaper. He is suggesting lowering rates for a short period of time to allow additional volume. From a marketing point of view, reduce the cost and attract businesses and people into this area. He feels there is no excuse for being penalized when you are cutting back and charged more because we are using less. This is not a good year for a rate increase.

John Freeman, California Water Service Company, said that Cal Water has always supported Zone 7 in the renewal/replacement program as Mr. Greenwood said. But the system-wide improvement portion of the rate increase is of concern. He suggests the Board look at what they want as the minimum for their reserves and that should be maintained; anything above that should be given back to the rate payers. Cal Water is a different model from the Cities because they are regulated by the Public Utilities Commission and would never be allowed to have reserves in their coffers.

Angelina Summers, Pleasanton resident, said that they have been asked to conserve water, they have, and Dublin has all these new houses. Why is she conserving so they can live there? She feels that Dublin, because they are using a lot of water, should be charged a higher rate than Livermore and Pleasanton.

Director Greci commented on the 20% conservation goal by 2020 that is a State requirement. It does not come from Zone 7. The State mandate has to be met. We are obligated to encourage our users to decrease their demand by 20% by 2020.

Director Moore commented on businesses coming to the Valley and needing a reliable source of water but a reliable water supply comes at a cost. Last year the Finance Committee recommended a 0% increase and the overall Board voted for 2.5%

Director Stevens suggested a Board meeting on reserves in two weeks and President Figuers and the remainder of the Board agreed.

Item 9 - Preliminary Untreated Water Rate for 2012

John Yue stated that the preliminary untreated water rate for 2012 is calculated separately from the treated water rate. The current rate is \$97/acre foot. The recommended rate is \$92/acre foot, a 5% decrease. Ms. Baptista noted that Zone 7 anticipates providing around 4,000 acre feet of water for the untreated water customers which is roughly 10% of our treated water. The untreated water rate is comprised of various sources of untreated water from the Byron-Bethany Irrigation District (BBID) water, Del Valle Water Rights, Yuba Dry Year Water Purchase Program, Bay-Delta related costs and an administrative fee based on actual staff costs.

Since 1962, Zone 7 has delivered untreated water via the South Bay Aqueduct (SBA) to untreated water customers for irrigation purposes. The rate is set based on the cost of acquiring the untreated water, Bay-Delta related costs and an administrative fee. The administrative fee calculation is based on the actual time staff spends on the untreated water program and the actual water usage. A program developed by staff tracks and monitors water usage by individual contractors. This program report is part of the Annual Water Operations Report.

Director Moore moved and Director Palmer seconded a motion approving the recommendation to continue this action to the October 19th Board meeting. President Figuers confirmed that this is the direction given to staff.

NOTE: Item 11 was heard prior to Item 10 per the Board's agreement at the beginning of the meeting.

Item 11 - Draft Fiscal Year 2012/13 Capital Improvement Program:

- **10-Year Water System Plan**
- **5-Year Flood Protection Plan**

John Yue introduced Item 11, the Capital Improvement Program for FY 2012/13. Mr. Yue reminded the Board that this item is for information and discussion.

JaVia Green, Staff Analyst, gave a presentation including the background of the program and the preliminary findings. Staff prepared the Draft Fiscal Year (FY) 2012/13 Capital Improvement Program (CIP) document which identifies the capital projects and programs needed to carry out the goals and policy objectives of the agency. The CIP describes the projects, costs, schedules, and priorities for the next five and ten year periods, starting with FY 12/13 for the Flood Protection and Water Systems, respectively.

Staff met with the Retailers on August 22, 2011 to provide an overview of the draft CIP. In addition, the Draft CIP Executive Summary was presented to the Zone 7 Finance Committee on August 29, 2011. At the subsequent September 13, 2011 Zone 7 Finance Committee meeting, the committee recommended bringing forward the CIP for discussion at the September 21, 2011 Board meeting and for adoption at the October 19, 2011 meeting.

Public Comment:

Randy Werner, City of Livermore, commented about using money for the Ozone project. He emphasized that all Retailers know the benefits of ozone but they do not want to see the money spent on the project now.

In response, President Figuers requested that Retailers provide a semi-official list of projects that Retailers recommend delaying three to five years or longer and projects that Retailers recommend cancelling because Retailers don't want them. Zone 7 is building a lot of them because Retailers have requested them for years; if no longer requesting them, let the Board know, so that Zone 7 staff can analyze and make appropriate recommendations to the Board.

Darren Greenwood, City of Livermore, said they could come to the next meeting with a list of projects but asked for a delay with the ozone project because they are not ready to make a

decision to not do the project but want to take another look at it. There are lots of benefits to ozone but is it worth \$54 million?

President Figuers responded that a delay may mean it may not be there when Retailers want it.

Director Stevens suggested sticking to the Board practice of considering what Zone 7 staff recommends for the CIP.

Item 10 - 2011 Municipal & Industrial Connection Fee Program Update

Amparo Flores, Associate Civil Engineer, Integrated Planning Group, gave information on the connection fee update which is done to incorporate the latest planning efforts. The 2011 water supply evaluation completed earlier this year played a critical role in developing our water system expansion program which is designed to meet the needs of our future customers. The connection fee program funds the water expansion fee program. The planning horizon for this update is from FY 12/13 to FY 39/40 to cover the projected build out between 2035 and 2040.

Staff has determined that the Water System Expansion Program funding requirements are in-line with the existing connection fee. At the October 2011 Board meeting, staff will therefore recommend an inflationary adjustment to the current fees based on the change in the ENR CCI from September 2010 to September 2011 (3.2%). The resulting fees would be \$22,930 per 5/8-inch connection (Dwelling Unit Equivalent or DUE) within Zone 7's Alameda County service area and \$21,230 for Dougherty Valley to be effective January 1, 2012.

Staff also evaluated the Dougherty Valley Facility Use Fee. In accordance with the methodology set forth in the agreement between Zone 7 and Dublin San Ramon Services District, the fee is adjusted every five years for inflation based on the change in the ENR CCI between 1997 and the present. Staff recommends increasing the fee to \$2,895 per DUE, a 17.7% increase from the previous fee.

The next steps are to finalize the draft connection fee program update and bring forward the recommended fees at the October Board meeting. They would become effective January 2012, if adopted.

President Figuers asked what happens if build out is shifted 10 years? Ms. Flores responded that Zone 7 will build projects only when needed or projects will be deferred. Since those projects may involve years of lead time to plan, this will be looked at annually. She said Retailers did not appear to be concerned because this is an inflation adjustment but they did have questions about future outlook and an updated engineering analysis which is part of the current evaluation.

Item 12 - Committees – Minutes of Finance Committee Meetings for August 29, 2011 and September 13, 2011

Item 13 - Items for Future Agendas – Directors

President Figuers asked staff to schedule a Special Board Meeting to explain Zone 7's reserves.

Item 14 - Reports - Directors

Director Palmer reported that she attended ACWA's 2011 Regulatory Summit meeting in Pasadena last month. She has lots of notes about maximum contaminant levels and toxicity levels and what is recommended. This is the first time they have had an ACWA Regulatory Summit. There were good panelists that covered topics like carbon capture and storage, detection limits on various toxic chemicals, water quality compliance, chromium 6 and public relations messages about water quality. The highlight was speaker William Ascher, author of a book Environmental Policy, Reimagining the Boundaries of Science and Politics. Since one of our problems in this country is not trusting science, he talks about the public perception of science, what is good science and bad science, how people use it and misuse it, and some of the problems in terms of missing variables. Director Palmer highly recommends the book and noted that the key points are:

The authors divide the knowledge process into three functions – generation, transmission, and use – and explore the key obstacles to incorporating knowledge into the making of environmental policy. Using case studies and integrating a broad literature on science, politics, and policy, they examine the ignorance or distortion of policy-relevant knowledge, the overemphasis of particular concerns and the neglect of others, and the marginalization of certain voices. The book's analysis will be valuable to scientists who want to make their work more accessible and useful for environmental policy and to policymakers who want their decisions to be informed by science but have had difficulty finding scientific knowledge that is useful or timely.

Director Quigley participated in a coastal clean-up at Lake Del Valle with about 70 young Interactors (Rotary's youth division) from six high schools in the Valley. He helped them understand where some of the Del Valle water comes from. He also attended an East Bay Regional event with their fish tank. He then attended a Region 5 ACWA meeting in San Luis Obispo. The group talked with the owner of a winery about farming run-off and environmental concerns of agriculture. Key points of the presentation include a warning that agriculture is the least regulated in terms of run-off and that may be changing. People are worried about urban stormwater and water quality impacts. Recent changes in the Judge Wanger decision on the Delta may help us in our water supply in the near term.

Item 15 – Staff Reports (Information items.)

- a. General Manager's Report
- b. Recent & Upcoming Public Outreach Activities
- c. Legislative Update
- d. Status Report on Separation Efforts
- e. Verbal Reports

Ms. Duerig said the recent decision by Judge Wanger is similar to what he did with the smelt opinion. He remanded the biological opinion to the National Marine Fisheries Services to try again because the science wasn't sound enough to support the limits they had put on pumping to theoretically help salmon.

Randy Werner, City of Livermore, asked about an item in the General Manager's Report under Finance & Administration:

- The Power and Water Resources Pooling Authority (PWRPA) continues to evaluate the viability and economics of serving various Zone 7 sites that meet their criteria. PG&E has indicated that PWRPA can serve the five

most likely sites pending an interim services agreement. PWRPA has agreed to submit a draft of the evaluation to staff soon.

Ms. Duerig explained that the Power and Water Resources Pooling Authority is a group of agencies who generate power through the dams they operate, irrigation districts, and solar power. Sometimes they have excess power that they want to sell back to the grid. They pool their resources so they can sell between each other and they split the difference of what they get from PG&E over what somebody else would pay at the full PG&E rate so both parties have the benefits. They formed a group eight to ten years ago to pool their power and sell it back and forth and realized that there are sometimes when, if it is based on hydroelectric power from dams and it has been a wet year, they all have excess power at the same time and if they are just selling it between themselves, they don't have enough. Zone 7 has been trying to get them to sell us cheap power and now Zone 7 is a test case for them. We are still negotiating details but it looks like it might save us money so we are moving forward with it.

The Board went into closed session at 10:00 p.m.

Item 16 – CLOSED SESSION

- a) Conference with Legal Counsel--Existing Litigation pursuant to Subdivision (a) of Government Code Section 54956.9: 1 case

Solano County Water Agency, et al., v. State of California Department of Water Resources, et al.;
Sacramento County Superior Court Case No. 34-2088-00016338CU-BC-GDS

- b) Conference with Labor Negotiators:
Agency Negotiator: G.F. Duerig
Employee Organizations: Alameda County Management Employees Association; Alameda County Building and Construction Trades Council, Local 342, AFL-CIO; International Federation of Professional and Technical Engineers, Local 21, AFL-CIO; Local 1021 of the Service Employees International Union, CTW; Unrepresented Management.

Item 17 - Open Session and Report Out of Closed Session

President Figuers reported out of closed session that the board had unanimously authorized the General Manager to increase the spending limit for existing litigation in Solano County Water Agency, et al., v. State of California Department of Water Resources, et al. (Sacramento County Superior Court Case No. 34-2088-00016338CU-BC-GDS), by \$25,000 for a new total of \$50,000.

The meeting was adjourned at 10:20 p.m.

MINUTES OF THE BOARD OF DIRECTORS
ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

SPECIAL BOARD MEETING

October 5, 2011

Vice-President Palmer called the special meeting to order at 6:00 p.m. The following were present:

DIRECTORS: JOHN GRECI
AJ MACHAEVICH
CHRISTOPHER MOORE
SARAH PALMER
RICHARD QUIGLEY
BILL STEVENS

DIRECTORS ABSENT: SANDS FIGUERS

ZONE 7 STAFF: JILL DUERIG, GENERAL MANAGER
KURT ARENDS, ASSISTANT GENERAL MANAGER, ENGINEERING
JOHN YUE, ASSISTANT GENERAL MANAGER, FINANCE
TAMARA BAPTISTA, FINANCIAL & SYSTEMS SERVICES MANAGER
JUDY RECTOR, BOARD SECRETARY

COUNSEL: REN NOSKY, DOWNEY BRAND

Item 3 - Citizens Forum – None.

Vice-President Sarah Palmer announced that Ren Nosky, General Counsel from Downey-Brand, is leaving Zone 7 to be the City Attorney for the City of Santa Clara. This Board meeting is his last with Zone 7. David Aladjem from Downey Brand will be working with Zone 7 during the transition.

Item 4 – Status of Zone 7's Water Enterprise Reserve Funds

John Yue, Assistant General Manager, Finance, reminded the Board that the staff report that came with the agenda has background information but there is also a presentation on reserves by Tamara Baptista, Financial & Systems Services Manager.

Ms. Baptista explained that her presentation is split into two components: basic reserves and how we calculate them, the surplus and deficit, the concept of reserves, Fund 52 (water enterprise reserves), Fund 73 (renewal/replacement & system-wide improvements) and Fund 73 (expansion fund).

Ms. Baptista's presentation included slides that showed by example how if the funding requirement is more than the revenues received, the difference is taken out of reserves. For instance, with a 5% rate increase, using the beginning fund balance, adding revenue, and subtracting operating expenses and the transfer to the rate stabilization fund, revenues do not cover the operating expenses and transfer, and Zone 7 is short \$1.7 million which would have come from reserves. By using the reserve policy, staff takes the reserves from the operating/emergency, rate stabilization and unrestricted reserves. The balance is the same; it is just where the money is used.

Director Greci felt getting the same ending numbers is shuffling money to see if we are going to use the unrestricted reserves for rate stabilization and not have an increase. He remembers instituting a policy for reserves to cover emergency expenses and feels that is good business. If Zone 7 is playing the game of shuffling money to eliminate the increase in the water rates, it is not a good business practice. The Board set up policies for a reason: to protect Zone 7 customers and not have to implement big raises of 30-40% as happened during the „90s drought. This is the best insurance Zone 7 can give ourselves. We may not please all of our customers because we increase rates but they would be a lot more upset with us had we not planned properly and slapped a big raise on them because we did not have the diligence to look ahead, forecast as we have been doing, and keep those reserves; they are there for a reason.

Director Moore has no issue with the current levels of operating reserves and can see adjusting them upwards or downwards for a specific purpose, likewise rate stabilization. The reserve policy implemented by the Board to protect us so we didn't have wild swings. The unrestricted reserves sound more like a budget surplus. We are conservative, we spend less than we budget, and with reserves we are always going to have enough, but it is a budget surplus and without a designation of what that surplus is, it has been termed as a "slush fund" by the retailers. It is a budget surplus that could offset the rate increase but it is a surplus you are hanging onto even though there is no designation for it. Even the Retailers said, if you wanted to, you could increase the percentage of your Operating Reserves, which is a Board policy, but don't leave undesignated money out there and let it continue to grow; a better use would be to offset rate increases. One aspect of the discussion at the Finance Committee was the undesignated surplus and what you should do with it.

Vice-President Palmer said it bothers her, too, to say it is all the same at the end because it is designated as unrestricted and leaves the question that maybe it is not needed.

Director Stevens asked if you put \$2 million of reserves into our "bucket," would that reduce the rate 2%? Ms. Baptista confirmed \$2 million would be 2%. Director Stevens asked if \$1 million was taken from reserves, would that decrease the rate by 1%? Ms. Baptista confirmed and Director Stevens replied that we would have to get \$10 million from reserves to get a 0% water rate increase.

Director Stevens also asked if there is insurance for emergencies, like earthquakes or pipe ruptures, which can be bought? John Yue replied that we are currently self-insured. But if there is a policy change to go out and buy coverage for the first \$10 million in losses, then it would be an extra cost. Director Stevens asked if it would be viable to buy insurance instead of a rate stabilization policy? Mr. Yue said the rule of thumb is for the first few million dollars of loss coverage, buying the insurance policy is going to be more expensive than being self-insured due to the deductible and premium cost.

General Manager Jill Duerig said that as part of Alameda County, we are limited by their risk management programs. We have begun to look into how we will handle insurance if we do separate from the County but we do not have any decisions right now.

Director Stevens also asked where these reserves are kept? Are they kept in a money market certificate earning interest? Ms. Baptista replied that the County invests our money for us. If we get 5% interest, we do get that money back. We also get a monthly investment report from Alameda County.

Director Stevens then said he likes the idea of a percentage on the rate stabilization. A flat rate of \$5 million doesn't make sense because if you add up all the reserves, we are at 40% of our revenue which seems excessive.

Ms. Duerig clarified that those unrestricted reserves are projected to be used during the next few years to dampen the rate increases. It will be drawn down to almost zero and that is how those unrestricted reserves are being used. Ms. Baptista has also compared where we are right now in comparison to other agencies but that number will reduce substantially over the next four years as we are buffering those rate increases and bringing those unrestricted reserves down to nearly zero and are going to be closer to below average. Fund 73 is related to Developer Impact Fees and the Mitigation Fee Act says we cannot co-mingle the fees that we collect from developers. Director Stevens asked if we were avoiding touching Fund 73 reserves because it would not be prudent but Ms. Duerig said it would not be legal.

Director Stevens would like staff to come up with an explanation/recommendation for rate stabilization because the current \$5 million balance needs to be looked at. Ms. Baptista said she can give more history and back-up on the Rate Stabilization reserve. Zone 7 does have a balance of unrestricted reserves, but Alternative 2, our 5% water rate model, decreases unrestricted reserves. Director Stevens added that what the Retailers are saying is use more of the reserve now. We know it will go to zero but use more of it now for the next couple of years. But Ms. Baptista said if we use more of the unrestricted reserves now, it will defeat our ability to smooth out water rate increases and keep them as low as possible. If we have a smaller water rate increase now, that will make the future years' increases higher and that is why we try to smooth it out.

Mr. Yue said the Rate Stabilization Reserve at \$5 million, given our current revenue, is roughly in the ballpark for general guidelines for rate stabilization and drought contingency reserves. However, because it is at a dollar number right now, some clarification on the percentage pegging it to annual sales would allow it to take care of itself as time goes on.

Ms. Duerig said this could tie in with the discussions on the Reliability Policy because if we talk about up to a 15% shortage one year of a drought, then perhaps a 15% number would be appropriate.

Director Moore said we have been using the unrestricted reserves for smoothing but if we had an intended purpose for it, rather than call it unrestricted, it should be Board policy to say that is what we are doing. By our budgeting that is what we are doing, but we should be clearer.

Vice-President Palmer said the public understands the reserves the least of any of the budgetary things we do so it is a good idea to make it all crystal clear.

Ms. Duerig said most agencies name what we call our Rate Stabilization Fund, a Drought Contingency Fund, and what we call our Unrestricted Reserves is Rate Stabilization or cash-on-hand. This is part of the confusion and perhaps the Board can rename those reserves and make it clearer to the public. Staff can come back with a recommendation.

Director Quigley said the reserves are our insurance policy for drought, for mitigating a large rate increase. It is incumbent upon us as a Board to take that \$2 million in an unknown bucket and put a label on it somewhere. He feels good about the Board reserve policies when compared to neighboring water districts because we have a low number as a total. Every year during the rate discussions the Retailers ask for a 0% rate increase. We have to manage our business so if we have a break in a pipeline or the cost of chemicals go up, we have some contingency funds and designated reserves to get a band-aid. Rather than have the reserves sitting there, special undesignated reserves unknown with a question mark, he wants to appease the retailers and give the public a clear vision of what our intent is because he feels that is important.

Dan Martin, Utilities Superintendent for the City of Pleasanton, representing both the City of Pleasanton and City Council, reiterated their position that they are requesting no increase for 2012. He recognizes that there are elements going forward that we have to be aware of in having those reserves available for emergencies. What they are saying is that if we are going to use some of the reasoning for an increase based on either a reserve policy that is not clear, or using the reserve levels to justify a rate increase, but we are not sure what those reserves are available for, they are not comfortable using that justification without an explanation. They are not suggesting that all funding of Asset Management Plan transfer levels and repair and replacement projects be stopped, they are being funded now, they are going to be funded in the future without a rate increase, they are simply saying that now is not the time to add additional projects on top of that current plan. It is called a plan so we can look at it and determine whether or not it is truly a critical function that needs to be repaired or not and go forward. It has been suggested that at a 0% rate increase, there will be a decrease in reliability. Does that mean that there will be a 50% decrease in reliability which would not be acceptable to anyone? Is there going to be 5% decrease or is it going to be 0.5%? If we are saying we cannot go to a 0% increase, then we have to explain to our constituents and customers what that means. He knows exactly what is being talked about because he does those things to maintain his budget, but what he is not convinced that 0% is not an option. He is not at this meeting asking for 0% in the hopes of a 2.5%; he is saying he and the City of Pleasanton are not convinced the Board can't do a 0% water rate increase.

Mr. Martin gave the Board Secretary a letter from the Mayor of Pleasanton and a Resolution to give to the Board for consideration. Ms. Duerig said we will include the letter in the packet for the October 19th discussion on water rates but this meeting was strictly on reserves.

Director Stevens asked if reserves will be discussed as an action item at the next Board meeting before we decide on a rate increase or is the Finance Committee going to decide on the Reserve Policy? Director Moore clarified that it is a Board policy that has to be done at the full Board level. Now that the Board has heard the discussion on reserves and what is appropriate, the Finance Committee would like to come up with recommendations for the Board, but it might not be presented in time for the water rate discussion on October 19th. Perhaps around the beginning of the year the Board will have this discussion and come up with applications and guidelines on what the Board reserve policy should be.

Director Machaevich concurred that the plan by the Finance Committee had been to have a better understanding of how the reserves were set up and terminology, then maybe the numbers are not unrealistic, but it has to be acceptable to the public. He does not see it ready by October.

Ms. Duerig said she thought that was President Figuers' view as well and that he wanted to have the Finance Committee re-visit the policies to see if they needed to be changed and that would include re-naming or clarifying them. He wanted to have the understanding of what reserves meant prior to the water rate discussion on October 19th.

Vice-President Palmer said she found the discussion useful because it is the first time she has actually seen where we are in relation to other agencies and what the recommendations are for special districts.

Item 5 – Verbal Reports - None

Ms. Duerig added that Judge Wanger retired the end of September. Judge Wanger's decisions on Delta pumping have had a significant impact on water supplies statewide.

The meeting adjourned at 6:50 p.m.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: INTEGRATED PLANNING
CONTACT: CAROL MAHONEY

AGENDA DATE: October 19, 2011

ITEM NO. 5a

**SUBJECT: RIVER PARKWAYS GRANT APPLICATION FOR THE
ARROYO MOCHO – STANLEY REACH PROJECT**

SUMMARY:

- The California River Parkways Grant Program under the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 has thirty million dollars (\$30,000,000) available for grant awards.
- This program is administered by the California Natural Resources Agency and provides funds for river parkway acquisition or development projects that meet at least two of five statutory conditions: recreation; habitat; flood management; conversion to a river parkway; and/or conservation and interpretive enhancement.
- The Arroyo Mocho – Stanley Reach Project, as identified in the Stream Management Master Plan, would be eligible for this grant as it provides for stream channel enhancements, increased riparian vegetation, and fish passage improvements.
- The Board of Directors, at its August 17th meeting, authorized the General Manager to negotiate a contract with ESA-PWA to create design drawings and a cost estimate for this project in preparation for submitting an application for the River Parkways Grant Program.
- The California Natural Resources Agency requires a resolution certifying the approval of the grant application before submitting the application to the State.

FUNDING:

Project funding is available in Fund 50 (83%) and Fund 76 (17%).

RECOMMENDED ACTION:

Adopt attached Resolution approving the grant application submission and authorizing the General Manager to negotiate, execute and submit all documents necessary to complete the Arroyo Mocho – Stanley Reach Project.

ATTACHMENTS:

Resolution

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

**Approving the Arroyo Mocho – Stanley Reach Project Application for Grant Funds for the California River Parkways Grant Program Under the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006
(Proposition 84)**

WHEREAS, the Legislature and Governor of the State of California have provided funds for the program shown above; and

WHEREAS, the California Natural Resources Agency (Agency) has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS, this program grants funds for river parkway acquisition or development projects that meet at least two of five statutory conditions: recreation; habitat; flood management; conversion to a river parkway; and/or conservation and interpretive enhancement; and

WHEREAS, Arroyo Mocho – Stanley Reach Project, as identified in the Stream Management Master Plan, would be eligible for this grant program as it provides stream channel enhancements, increased riparian vegetation, and fish passage improvements; and

WHEREAS, the grant procedures established by the Agency require a resolution certifying the approval of this application by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District before submission of the application to the State; and

WHEREAS, Zone 7, if selected, will enter into an agreement with the State of California to carry out the Arroyo Mocho – Stanley Reach Project.

NOW, BE IT RESOLVED, that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District, does hereby:

1. Approves filing the River Parkways Grant Program application for the Arroyo Mocho – Stanley Reach Project; and
2. Certifies that Zone 7 understands the assurances and certification in the application; and
3. Certifies that Zone 7 will have sufficient funds to operate and maintain the project consistent with the land tenure requirements; and
4. Certifies that Zone 7 will comply with all provisions of Section 1771.5 of the California Labor Code; and

5. Certifies that the project will comply with any laws and regulations including, but not limited to, the California Environmental Quality Act, legal requirements for building codes, health and safety codes, disabled access laws, and that prior to commencement of construction, all applicable permits will have been obtained; and
6. Certifies that Zone 7 will work towards the State Planning Priorities intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety as included in Government Code Section 65041.1; and
7. Authorizes the General Manager, or designee, as agent to negotiate, execute and submit all documents including, but not limited to applications, agreements, payment requests, and so on, which may be necessary for completion of the Arroyo Mocho – Stanley Reach Project.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on

October 19, 2011

By: _____
President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING DIVISION: Finance and Business Services

CONTACT: John Yue

AGENDA DATE: October 19, 2011

ITEM NO. 5b

SUBJECT: Public Entity Resolution for Banking Services

SUMMARY:

- As part of the separation from the County, Zone 7 plans to use a bank account in its own name beginning 2012 when payroll processing support is to be transferred from the County of Alameda to ADP.
- Zone 7 has started the process of opening a bank account with Union Bank, N.A.
- Staff recommends adoption of the attached resolution, under California Government Code 53649, authorizing the General Manager, or designee, to perform banking transactions on behalf of the Agency.

FUNDING:

The cost of banking services is estimated to be under \$4,000 per year. Funding is available in the Flood Control Fund (50) and Water Enterprise Fund (52).

RECOMMENDED ACTION:

Adopt the attached resolution, under California Government Code 53649, authorizing the General Manager, or designee, to execute or perform banking transactions on behalf of the Agency.

ATTACHMENT:

Resolution

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

PUBLIC ENTITY RESOLUTION

California Government Code 53679 stipulates that money not under control of the treasurer but belonging to a local agency and under the control of any of its officers or employees other than the treasurer may deposit funds as active deposits or inactive deposits.

For deposits in excess of the amount insured under any federal law, a contract in accordance with Section 53649 is required.

It is resolved that the officer now or subsequently holding the position of General Manager of Zone 7 of Alameda County Flood Control and Water Conservation District is authorized by the Governing Board under California Government Code 53649 to enter into any contract with Union Bank, N.A. relating to any deposit, which in his or her judgment is to the public advantage. Contracting requirements could include:

- Establish bank accounts and services.
- Sign, or change in writing, agreements with the Bank regarding the Public Entity's bank deposit relationship.
- Specify in writing to the Bank the individuals who are authorized in the name of and on behalf of the Public Entity to:
- Withdraw funds from any of the Public Entity's banking accounts on the Public Entity's checks or orders.
- Endorse and deliver to the Bank, for any purposes, and in any amount, negotiable or non-negotiable items of any kind, and owned by, or held by, or payable to the Public Entity.
- Send, review, and/or authorize wire and electronic transfers of funds from the Public Entity accounts. Such authority may be exercised by such authorized individual acting alone, regardless of any multiple signature requirements otherwise applicable to the accounts.
- Otherwise access the Public Entity's deposit accounts.

This authority has been granted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District and shall remain in effect until the Bank receives written notice of revocation at the Office where the Public Entity's banking relationship is maintained.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on

October 19, 2011

By _____
President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATION
CONTACT: JILL DUERIG

AGENDA DATE: October 19, 2011

ITEM NO. 5c

SUBJECT: Request By President Figuers For Authorization To Attend ACWA's 2011 Fall Conference in Anaheim

SUMMARY:

- President Sandy Figuers has expressed an interest in attending the Association of California Water Agencies (ACWA)'s 2011 Fall Conference & Exhibition, "Financing Our Future," to be held November 29-December 2, 2011 in Anaheim, California.
- Considering the economic climate we find ourselves in today, the conference will focus on answering such questions as, how do we continue to manage the business of delivering high quality water to California's farms, industries and people? This conference will engage attendees with discussions about how we will be able to finance and deliver the future of California's water needs. Further conference information is available on the conference website, <http://www.acwa.com/events/acwa-2011-fall-conference>.
- Zone 7's current board policy is to allow directors to attend one ACWA conference per year without seeking authorization from the Board for reimbursement of travel and registration expenses. If directors wish to attend additional seminars or conferences, Board authorization must be obtained. President Figuers attended ACWA's Spring Conference in Sacramento and wishes to attend the Fall Conference, as well.

FINANCIAL:

Registration cost for the conference is \$465. There will also be miscellaneous expenses associated with attendance, i.e., travel, parking, hotel stay and meals. Total miscellaneous expenditures are estimated at an additional \$900. Funds are available from Fund 52-Water Enterprise.

RECOMMENDED ACTION:

Adopt attached resolution.

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO.

AUTHORIZING PRESIDENT FIGUERS TO ATTEND ACWA'S 2011 FALL CONFERENCE

INTRODUCED BY
SECONDED BY

WHEREAS, President Sandy Figuers has expressed an interest in attending the conference entitled, "ACWA's 2011 Fall Conference, Financing Our Future," to be held in Anaheim, CA, November 29-December 2, 2011;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control & Water Conservation District does hereby authorize President Figuers' attendance at said conference;

BE IT FURTHER RESOLVED that President Figuers be reimbursed for actual and necessary expenses associated with his attendance at this event.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on

October 19, 2011

By: _____
President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: HUMAN RESOURCES
CONTACT PERSON: TOM HUGHES

AGENDA DATE: October 19, 2011

ITEM NO. **6a**

SUBJECT: Employee of the Month Recognition

SUMMARY:

The Employee Recognition Program Nomination Committee met in September and selected the Employee of the Month for August 2011 according to the established Program Guidelines. The individual chosen out of the submitted nominations is then recommended to Management for approval and there is a subsequent announcement of the selection to all Agency employees.

Steve Yonkman, Plant Mechanic, has been chosen from among those nominated as the August 2011 Employee of the Month. Steve has worked in the Operations/Maintenance Section based at the Del Valle Water Treatment Plant (DVWTP) for over 10 years. According to the recommendations the committee received, Steve is a master mechanic with excellent skills he has used to layout, fabricate, and assemble a variety of facilities and systems while working on projects for Zone 7. Some noteworthy projects over his career here have been: the recent complicated repair of the Hopyard Pipeline near the Parkside office, the Ferric and Hypochlorite piping relocation project at the Patterson Pass UF plant, the Airway pump station/Airport rate control station booster pump relocation project, the DVWTP Filter Valve replacement project, the DVWTP installation of piping and conduit support systems project, the rebuilding of the caustic feed systems at DVWTP and PPWTP, and the construction of a new cationic feed pump system at DVWTP. Steve's expertise and attention to detail have saved Zone 7 thousands of dollars and he is one of the most valuable employees we have in Maintenance. Therefore, Steve is recognized as a valuable employee and an asset to Zone 7.

RECOMMENDED ACTION:

It is recommended that the Zone 7 Board of Directors recognize and congratulate Steve Yonkman as August 2011 Employee of the Month.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: EMPLOYEE SERVICES
CONTACT PERSON: TOM HUGHES

AGENDA DATE: October 19, 2011

ITEM NO. 6b

SUBJECT: New Employee Introduction

SUMMARY:

We are introducing one new employee to the Board of Directors who joined the Zone 7 team since our last Board meeting.

John Brixie, Water Plant Operator III

John Brixie joined Zone 7 on Monday, September 19, 2011 as a Water Plant Operator III working for the Operations Section at the Del Valle Water Treatment Plant. John comes to Zone 7 with over 5 years of plant operations experience at the City of Sacramento where he participated in operation, monitoring, and control of a T5 classified conventional surface water treatment plant, performing all related duties. John is certified as a Water Plant Operation Specialist by California State University, Sacramento and he holds a Hazardous Materials Technician certificate from the City of Sacramento. He is currently certified as a T3 water treatment operator by the State of California Department of Public Health.

Please join us in welcoming John to the Zone 7 team!

RECOMMENDED ACTION:

Information only.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING DIVISION: Finance and Business Services
CONTACT PERSON: Tamara Baptista/John Yue

AGENDA DATE: October 19, 2011

ITEM NO. 7

SUBJECT: Treated Water/Recharge Rate Schedules for 2012

SUMMARY:

- The proposed treated water rate schedules apply to calendar year 2012.
- The Finance Committee recommendation is a treated water rate of \$945 per acre-foot, which is a 5% increase above calendar 2011, as shown in the table below.
- If approved, these new rates will become effective on January 1, 2012.

	Rates		5% Change
	2012	2011	From 2011
Treated ¹	\$945	\$900	5%
Recharge ¹	\$665	\$641	3.74%
In-Lieu Treated ¹	\$95	\$98	N/A
Private standby ²	\$3.875	\$3.60	5%
Temp Treated ²	\$3.875	\$3.60	5%

¹ Per acre-foot

² Per 100 cubic feet

RECOMMENDED ACTION:

Assuming the Board follows the Finance Committee's recommendation, adopt the attached resolution approving the following Treated Water Service Rates for 2012:

- A Delta charge of \$20 per acre-foot to be included for all treated water rates.
- A Treated Water rate schedule for 2012; based on \$945 per acre-foot (a 5% increase), which includes the Delta charge.
- A Recharge Fee of \$665 per acre-foot which includes the Delta charge.
- A Temporary Treated Water rate schedule of \$3.875/100CF which includes the Delta charge.
- A Treated Water rate schedule for Private Fire and Standby Service of \$3.875/100CF which includes the Delta charge.
- An In-Lieu Water Rate of \$95 per acre-foot.

Attachments:

Staff Report; Resolution; Survey of Water Supply Issues; Letter from City of Dublin; and Letter from City of Pleasanton

M E M O R A N D U M

DATE: October 19, 2011
TO: Jill Duerig, General Manager
FROM: Tamara Baptista/John Yue
SUBJECT: Treated Water/Recharge Rate Schedules for 2012

SUMMARY/ BACKGROUND:

This agenda item transmits the treated water rate recommended by the Finance Committee for the coming calendar year, which is \$945 per acre-foot (AF) for calendar year 2012. This is a 5% increase over the calendar year 2011 rate of \$900 per AF. If passed on directly to end-users, this could be as much as a \$1.88 per month increase in average residential bills. Staff first presented the preliminary treated water rate to the members of the Tri Valley Water Retailers Group (TWRG) on August 22, 2011 and to the Zone 7 Finance Committee on August 29, 2011 and September 13, 2011. The Finance Committee recommended forwarding the preliminary treated water rates for 2012 to the Board for consideration with a recommendation of a 5% increase for calendar year 2012. At its September 21, 2011 regular meeting, the Board requested a Special Board meeting to discuss reserves.

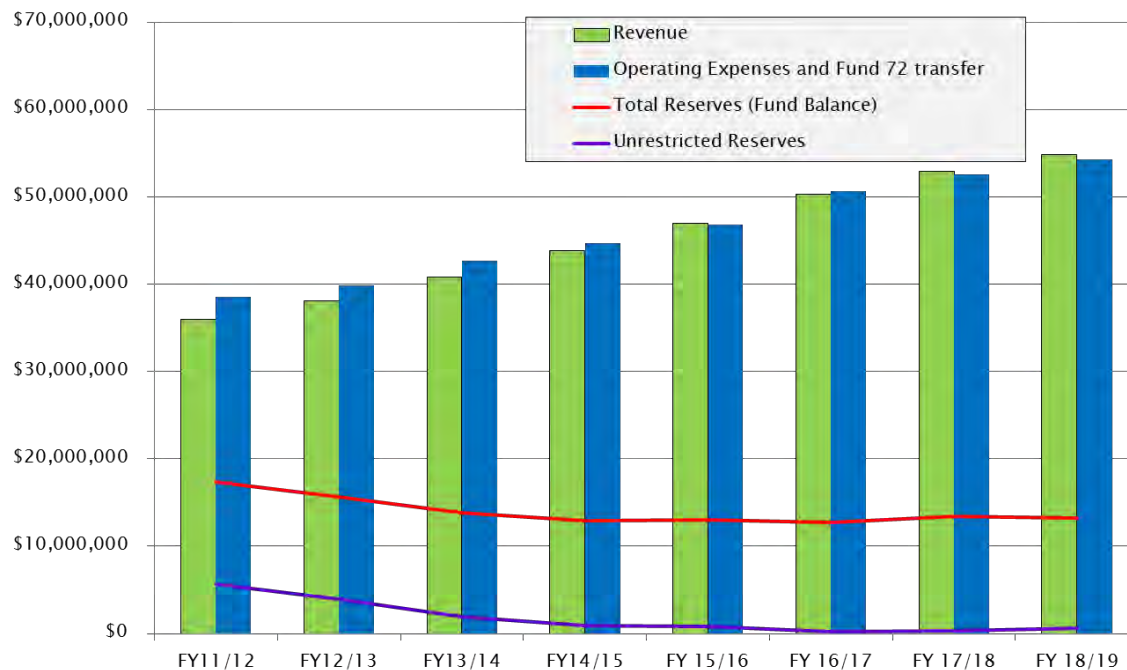
Zone 7 recently conducted a telephone survey on Water Supply Issues of approximately 400 registered voters randomly chosen from within Zone 7's service area. The survey questions and results are attached for your reference. Two questions asked in the survey pertained to the added costs the respondent is willing or unwilling to pay for (i) improved water quality and (ii) a more reliable water supply.

The results of the survey indicated 63% of respondents were willing (33% were unwilling) to pay a \$2 per month increase for improved water quality. However, the majority of respondents were unwilling to pay \$5 per month (38% willing/48% unwilling) or \$10 per month (18% willing/78% unwilling) for improved water quality. Results were similarly split on the increase respondents were willing to pay for a more reliable water supply. Respondents were willing to pay \$2 per month (53% willing/36% unwilling) for reliable water supply, but were unwilling to pay \$5 per month (34% willing/62% unwilling) or \$10 per month (17% willing/78% unwilling). If the Zone 7 wholesale water rate increase is passed on 100% to the customers, a \$2 per month increase is equivalent to about 5% increase over the 2011 water rate; a \$5 per month increase approximates a 13.3% water rate increase; and a \$10 per month increase translates to 26.7% water rate increase.

In other words, the survey indicates the majority of residents within the service area are okay with a 5% rate increase since it is tied to the Asset Management Program (AMP) ramp-up for improving water quality and water reliability.

With a 5% water rate increase, the Zone plans to continue funding deficit budgets over the coming 5-year planning horizon using \$4.7 million of reserves. The following graph shows the projected revenue and expenditures into the future years.

Fund 52 – Future Reserve Balances



Since 2008, when an economic downturn began, Zone 7 entered a period of deficit spending as water sales revenues did not cover operating expenses and capital contributions to fund the AMP. More than \$6.8 million of reserves were used to balance the deficit budget since FY2008/09, including the projected amounts to be used in the current fiscal year.

At the direction of the Finance Committee, staff prepared a 0% rate increase option for consideration. After discussion, the Committee recommended the 5% rate increase be taken to the full Board for adoption.

Separately, letters from the cities of Dublin and Pleasanton, respectively expressing objections to the proposed water rate increase, were received and are attached for the Board's reference. The City Manager of Dublin urged Zone 7 to reconsider its proposed rate increase, while the Mayor of Pleasanton wrote to indicate the City Council's position for a zero percent increase.

DISCUSSION:

Tiered Rate Structure:

In order to maintain a focus on operations as a wholesale water agency, the base treated water rate has historically been tiered with increasing rates for smaller volume service, thus encouraging smaller users to seek service from the major retailers. Additionally, as invoicing has traditionally referenced volume in 100 cubic foot (CF) units, the basic treated water rate is converted from \$X per AF to \$Y per 100 CF (1 AF = 43,560 CF = 435.60 100 CF). The highest tier, at 179% of the base, applies to each customer taking up to 3,300 CF monthly. The next lower tier, at 143% of the base, applies to the next 30,000 CF, then the next tier, at 114% of the base, applies to the next 300,000 CF. The base tier applies to customers taking delivery of more than 333,300 CF monthly.

Recharge Fee:

The annual rate schedule includes a recharge fee for retailer pumping beyond the independent/groundwater pumping quota. This rate applies to the retail agencies with which we have treated water delivery contracts and includes the Delta charge. The recommended rate is \$665 per AF based on the volume of estimated water delivery, a \$24 increase from the 2011 rate of \$641 per AF. This fee applies only when the retailers exceed their groundwater pumping quota. Historically, this fee has been rarely used and then only for small quantities since the retailers generally do not exceed their independent quota.

Temporary Treated:

The temporary treated water rate is based on the first tier of the scheduled treated water rate schedule. Accordingly, for calendar year 2012, the rate would be \$1,688 per acre-foot or \$3.875 per 100 CF. This is in conformance with the 5% increase in the treated water rate. The need for temporary services stems from the inability of customers to obtain water in the outlying areas of the valley. The use of these services is limited.

Fire and Standby Service:

Each year the Board also sets a treated water schedule for fire and standby service for the Lawrence Livermore National Laboratory (LLNL). In 2004, the Board adopted the recommendation by staff that this rate be set at the first tier of the treated water rate, which is equivalent to the temporary treated water rate, with the application that LLNL must also pay the same monthly service charge of \$133 per connection as the regular treated water contractors. Low volume users pay a higher unit cost due to the fixed costs being spread over a smaller volume of water, thereby increasing the cost per unit. This rate is a 5% increase over calendar year 2011's rate of \$1,572 per acre-foot or \$3.69 per 100 CF.

In-Lieu Water Rate

In the event staff concludes that surplus surface water is available in 2012 and that it would be cost-effective to offer it to retailers at a reduced rate to achieve groundwater management objectives, staff has updated the in-lieu treated water rate. In-lieu water is treated water that the Retailers can purchase from Zone 7 instead of pumping their respective Groundwater Pumping Quota (GPQ). This rate was established in 1993 to encourage artificial recharge when surplus surface water is available. The rate is based on the power and chemical costs at Del Valle and Patterson Pass Water Treatment Plants and is \$95 per AF for 2012.

Please note that the water rate assumptions are based on best available information; however should the hydrology and water demand projections change significantly, the need to return to the Board with mid-year rate adjustments is possible.

RECOMMENDED ACTION:

Staff concurs with the Finance Committee's recommendation to adopt the attached resolution approving the following Treated Water Service Rates for 2012:

- a) A Delta charge of \$20 per acre-foot to be included for all treated water rates.
- b) A Treated Water rate schedule for 2012; based on \$945 per acre-foot (a 5% increase), which includes the Delta charge.
- c) A Recharge Fee of \$665 per acre-foot which includes the Delta charge.
- d) A Temporary Treated Water rate schedule of \$3.875/100CF which includes the Delta charge.
- e) A Treated Water rate schedule for Private Fire and Standby Service of \$3.875/100CF which includes the Delta charge.
- f) An In-Lieu Water Rate of \$95 per acre-foot.

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

Adoption of the Treated Water Service Rates for 2012

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Treated Water, Recharge, Temporary Treated Water, Fire and Standby and In-Lieu services be adopted.

BE IT FURTHER RESOLVED that the 2012 Delta Charge shall be an additional \$20 per acre-foot for all categories of Zone 7's water rates and the Board does hereby reserve the right to, by resolution, increase, decrease or eliminate this Delta Charge at any time based on actual experience.

FIRST, for Treated Water service a service charge of \$136.00 per month per metered service; and

A delivery charge, based on \$945 per acre-foot, in 100 cubic feet units for all metered water delivered to each customer per month, which includes the Delta Charge as follows:

For the first 3,300 cubic feet	--	\$3.875 per 100 cubic feet
For the next 30,000 cubic feet	--	\$3.102 per 100 cubic feet
For the next 300,000 cubic feet	--	\$2.473 per 100 cubic feet
For all over 333,300 cubic feet	--	\$2.169 per 100 cubic feet

SECOND, for Recharge services a recharge fee of \$665/acre-foot, which includes the Delta charge, which is the 2012 unit cost of replenishment water to achieve full cost of recovery when it is necessary to replenish the main groundwater basin when water is pumped in excess of a retailers Groundwater Pumping Quota or Independent Quota.

THIRD, for Temporary Treated Water service an initial service establishment charge of \$136.00 per turnout for each new direct connection to the Zone system; and

A monthly meter service charge of \$21.00 per turnout; and

A charge of \$3.875 per 100 cubic feet, which includes the Delta Charge for all water delivered monthly based on total meter readings or as may be otherwise determined by Zone 7.

FOURTH, for Fire and Standby services a service charge of \$136.00 per month for the connection; and

There shall be no charge for water used for extinguishing accidental fires. All other water used shall be charged for, based on metered amounts, at \$3.87 per 100 cubic feet, which includes the additional Delta charge.

FIFTH, for In-Lieu water services, a water rate of \$95 for calendar year 2012, and authorize the General Manager of Zone 7 of Alameda County Flood Control and Water Conservation District to offer to any treated water contractor who takes delivery of treated water from Zone 7 in lieu of pumping groundwater per their Groundwater Pumping Quota should appropriate circumstances be identified; and

Zone 7 may offer this rate to its treated water contractors who have a Groundwater Pumping Quota (GPQ) (including well pumping capacity) if sufficient surface water is available and if it is deemed financially and operationally prudent; and, In-Lieu quantities will be limited to each contractor's GPQ plus any accumulated carry-over.

BE IT FURTHER RESOLVED that said rate schedule for treated water service as adopted herein shall be effective on January 1, 2012 and shall end on the next effective date for such water rates as adopted by the Board.

BE IT FURTHER RESOLVED that the General Manager of Zone 7 of Alameda County Flood Control and Water Conservation District is hereby authorized to continue to enter into, renew, modify and otherwise administer all Temporary Treated Water service agreements in accordance with said rate schedules adopted herein and as may be modified from time to time.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on

October 19, 2011

By: _____
President, Board of Directors

ZONE 7 WATER SUPPLY ISSUES SURVEY**320-396WT****N=404**

Hello, I'm _____ from F-M-3 Research, a public opinion research company. I am not trying to sell you anything, but I would like to have you take a few minutes to answer a brief survey about issues that are important to property owners in eastern Alameda County. May I speak with _____? **(MUST SPEAK WITH VOTER LISTED. VERIFY THAT THE VOTER LIVES AT THE ADDRESS LISTED--OTHERWISE TERMINATE.)**

- A. Before we begin, I need to know if I have reached you on a cell phone, and if so, are you in a place where you can talk safely? **(IF NOT ON A CELL PHONE, ASK: "Do you own a cell phone?")**

Yes, cell and can talk safely-----29%
 Yes, cell and cannot talk safely-----**TERMINATE**
 No, not on cell, but own one -----64%
 No, not on cell and do not own one ----- 7%
(DON'T READ) DK/NA/REFUSED -----TERMINATE

1. First, I'm going to read a list of local public agencies. I would like you to tell me if you have a generally favorable, neutral, or generally unfavorable opinion of each one. If you've never heard of that agency, please say so. **(IF FAVORABLE/ UNFAVORABLE, ASK:) Is that very or somewhat (FAVORABLE/ UNFAVORABLE)? (ROTATE)**

	<u>VERY FAV</u>	<u>SMWT FAV</u>	<u>NEUT.</u>	<u>SMWT UNFAV</u>	<u>VERY UNFAV</u>	<u>(HEARD OF/ DON'T KNOW)</u>	<u>(NEVER HEARD OF)</u>
[]a. (T) Alameda County government-----	8%	28%	36%	12%	7%	8%	1%
[]b. (T) Zone 7 Water Agency-----	15%	22%	28%	5%	5%	9%	16%

MY NEXT QUESTIONS DEAL WITH THE ZONE 7 WATER AGENCY.

2. **(T)** First, how familiar are you with the Zone 7 Water Agency and the services it provides: **(READ LIST)**

Very familiar-----11%
 Somewhat familiar -----31%
 A little familiar -----26%
 Not familiar at all-----31%
(DK/NA) ----- 2%

3. Now I'm going to read you several aspects of the services provided by the Zone 7 Water Agency. After I read each one, please tell me whether you approve or disapprove of the job that Zone 7 is doing in that area. **(IF APPROVE/ DISAPPROVE ASK):** "Is that strongly or somewhat **(approve/disapprove)?**" **(RANDOMIZE)**

	<u>STRONGLY APPROVE</u>	<u>SMWT APPROVE</u>	<u>SMWT DISAPP.</u>	<u>STRONGLY DISAPP.</u>	<u>(DK/ NA)</u>
[]a. (T) Providing water to local retail water agencies for distribution to households -----	33%	30%	3%	3%	30%
[]b. (T) Providing flood control-----	32%	25%	2%	3%	38%
[]c. (T) Managing the agency's finances-----	7%	18%	8%	6%	61%
[]d. Minimizing water rate increases-----	17%	29%	14%	16%	25%

4. Now I'm going to read you a list of items related to services that are provided by your community's water supplier. After I read each one, please tell me whether you are satisfied or dissatisfied with your water supplier's performance in that area. **(IF SATISFIED/DISSATISFIED, ASK):** Is that very **SATISFIED/DISSATISFIED**, or just somewhat? **(RANDOMIZE)**

	<u>VERY SAT.</u>	<u>SMWT SAT.</u>	<u>SMWT DIS.</u>	<u>VERY DIS.</u>	<u>(DK/ NA)</u>
[]a. Having a reliable water supply-----	64%	30%	2%	2%	2%
[]b. The hardness – or mineral content – of your water -----	9%	27%	22%	28%	14%
[]c. The quality of your drinking water-----	25%	37%	21%	12%	5%
[]d. The smell of your drinking water-----	32%	37%	15%	11%	5%
[]e. The safety of your drinking water-----	33%	40%	11%	8%	7%
[]f. The taste of your drinking water-----	22%	32%	19%	24%	4%

(ALWAYS ASK g. LAST)

g. Water rates-----	10%	38%	20%	20%	11%
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NOW LET ME TELL YOU A LITTLE MORE ABOUT ZONE 7 WATER AGENCY. (READ SLOWLY AND CAREFULLY)

ZONE 7 IS A WHOLESALE WATER AGENCY WHICH PROVIDES DRINKABLE WATER TO RETAIL WATER AGENCIES IN DUBLIN, LIVERMORE, PLEASANTON AND PARTS OF SAN RAMON. WATER RATES ARE ADJUSTED ANNUALLY TO MAINTAIN AN ACCEPTABLE LEVEL OF SERVICE, REFLECTING ACTUAL AND PROJECTED COSTS OF PROVIDING HIGH QUALITY, RELIABLE WATER TO THE RETAIL WATER AGENCIES SERVING THE AREA'S HOMES.

MANY TIMES, RATE INCREASES ARE NEEDED TO "PASS THROUGH" INCREASED OPERATIONAL COSTS THAT THE DISTRICT HAS TO PAY. RATES MAY ALSO INCREASE TO ESTABLISH FUNDING FOR FUTURE WATER QUALITY AND WATER RELIABILITY IMPROVEMENT PROJECTS.

(ROTATE Q5 AND Q6)

5. Next, imagine that your water rates increased by _____ in order to cover the increasing cost of providing improved water quality. Would you be **willing** or **unwilling** to pay for this increase? **(IF WILLING/UNWILLING, ASK):** Is that very **(WILLING/UNWILLING)** or just somewhat? **(SPLIT SAMPLE C, READ TOP TO BOTTOM; SPLIT SAMPLE D, READ BOTTOM TO TOP)**

	<u>VERY WILLING</u>	<u>SMWT WILLING</u>	<u>SMWT UNWILL.</u>	<u>VERY UNWILL.</u>	<u>(DK/ NA)</u>
a. 2 dollars per month -----	34%-----	29% -----	9%-----	24%-----	4%
b. 5 dollars per month -----	14%-----	24% -----	19%-----	39%-----	4%
c. 10 dollars per month-----	8% -----	10% -----	16%-----	62%-----	4%

(ROTATE Q5 AND Q6)

6. Next, imagine that your water rates increased by _____ in order to cover the increasing cost of providing a reliable water supply. Would you be **willing** or **unwilling** to pay for this increase? **(IF WILLING/UNWILLING, ASK):** “Is that very **(WILLING/UNWILLING)** or just somewhat?” **(SPIT SAMPLE C, READ TOP TO BOTTOM; SPLIT SAMPLE D, READ BOTTOM TO TOP)**

	<u>VERY WILLING</u>	<u>SMWT WILLING</u>	<u>SMWT UNWILL.</u>	<u>VERY UNWILL.</u>	<u>(DK/ NA)</u>
a. 2 dollars per month -----	31%-----	27% -----	11%-----	25%-----	5%
b. 5 dollars per month -----	16%-----	18% -----	22%-----	40%-----	5%
c. 10 dollars per month-----	8% -----	9% -----	18%-----	60%-----	5%

**WE'RE JUST ABOUT DONE. I'M ONLY GOING TO ASK YOU A FEW
MORE QUESTIONS FOR CLASSIFICATION PURPOSES.**

7. **(T) Do you ... (READ LIST)**

Own a single family home ----- 75%
 Own a condominium----- 7%
 Rent an apartment or home ----- 17%
(DON'T READ) DK/NA/REFUSED--- 1%

8. **(T) What was the last level of school that you completed?**

Grades 1-8 ----- 0%
 Grades 9-12 ----- 2%
 High school graduate ----- 14%
 Less than 4 years of college----- 19%
 College graduate (4) ----- 47%
 Post graduate work/
 Professional school ----- 18%
(DON'T READ) Refused ----- 1%

9. (T) With which racial or ethnic group do you identify yourself: Latino or Hispanic, White or Caucasian, Black or African-American, Asian-American, or some other ethnic or racial background?

Hispanic/Latino----- 8%
White/Caucasian-----73%
Black/African-American ----- 5%
Asian-American ----- 5%
Other (SPECIFY _____)----- 5%
(DON'T READ) DK/NA/REFUSED--- 4%

10. (T) In what year were you born?

1993-1987 (18-24) ----- 8%
1986-1982 (25-29) ----- 5%
1981-1977 (30-34) ----- 7%
1976-1972 (35-39) ----- 7%
1971-1967 (40-44) -----10%
1966-1962 (45-49) -----13%
1961-1957 (50-54) -----10%
1956-1952 (55-59) ----- 9%
1951-1947 (60-64) ----- 9%
1946-1937 (65-74) ----- 7%
1936 or earlier (75 & over) ----- 7%
(DON'T READ) DK/Refused ----- 8%

11. (T) I don't need to know the exact amount, but please stop me when I read the category that includes the total income for your household before taxes in 2010. Was it:

\$30,000 and under----- 7%
\$30,001 - \$60,000 -----15%
\$60,001 - \$90,000 -----17%
\$90,001 - \$120,000-----10%
More than \$120,000-----18%
(DON'T READ) DK/Refused -----33%

THANK AND TERMINATE

GENDER (By Observation):

Male ----- 50%
 Female ----- 50%

PARTY REGISTRATION:

Democrat ----- 40%
 Republican ----- 33%
 Decline to State ----- 21%
 Other ----- 6%

Name _____

Precinct # _____

Address _____

Interviewer _____

Zip _____

Voter ID# _____

Phone # _____

Cluster# _____

FLAGS

P06 ----- 37%
 G06 ----- 58%
 P08 ----- 31%
 G08 ----- 82%
 M09 ----- 41%
 P10 ----- 50%
 G10 ----- 78%
 Blank ----- 8%

PERMANENT ABSENTEE

Yes ----- 52%
 No ----- 48%

CITY

Dublin ----- 17%
 Livermore ----- 44%
 Pleasanton ----- 36%
 Other ----- 3%

VOTE BY MAIL

1 ----- 11%
 2 ----- 7%
 3+ ----- 35%
 Blank ----- 48%

HOUSEHOLD PARTY TYPE

Dem 1 ----- 17%
 Dem 2+ ----- 13%
 Rep 1 ----- 9%
 Rep 2+ ----- 15%
 Ind 1+ ----- 19%
 Mix ----- 27%



CITY OF DUBLIN

100 Civic Plaza
Dublin, California 94568
Phone: (925) 833-6650
Fax: (925) 833-6651

September 30, 2011

Ms. Jill Duerig
General Manager
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Dear Ms. Duerig,

The City of Dublin would like to share its concerns about the water rate increase being proposed by Zone 7. The Agency has increased its rates every year for the past seven years and considering another 5 to 7 percent increase in 2012. Since 2003, the water rates have increased by 65 percent, with the majority of those coming in the last five years.

These increases have impacted our residents as well as the City, increasing our annual water payments to Zone 7 by \$76,000 to approximately \$193,000. This is on top of the rate increases by the Dublin San Ramon Services District, which were about half of the increases passed on by Zone 7.

These increases are difficult enough to absorb in strong economic times, but when economic conditions are uncertain, these expenses begin to impact our financial resources and delivery of services.

We respectfully request that Zone 7 reconsider its proposed increase and look at alternatives to meet your capital and operational needs, rather than raising prices on the ratepayer.

Respectfully,

Joni Pattillo
City Manager

City Council
(925) 833-6650

City Manager
(925) 833-6650

Community Development
(925) 833-6610

Economic Development
(925) 833-6650

Finance/Admin Services
(925) 833-6640

Fire Prevention
(925) 833-6606

Human Resources
(925) 833-6605

Parks & Community Services
(925) 556-4500

Police
(925) 833-6670

Public Works/Engineering
(925) 833-6630



THE CITY OF



PLEASANTON.

October 5, 2011

Mr. Sandy Figuers
President and Board of Directors
Zone 7 Water Agency
100 N. Canyons Parkway
Livermore, CA 94551

Dear President Figuers and Members of the Zone 7 Board of Directors:

On behalf of the City of Pleasanton, I am writing in opposition to a potential Zone 7 rate increase for calendar year 2012.

Our position is based on the economic realities of the Tri-Valley area. Simply put, our homeowners, businesses and local governments (including school districts) cannot afford another rate increase. As you know, unemployment stands at 11% Countywide and families continue to struggle to maintain their homes in this uncertain environment. Businesses are struggling as well, with the average vacancy rates for the valley's commercial, office and industrial inventory standing at 17%. School districts in the area have shed their workforce and municipalities have reset their expectations regarding infrastructure needs, service levels and funding priorities. Another increase by Zone 7 will further burden our weakened economy and limit our ability to restore jobs and sustain our quality of life.

The City acknowledges that while a freeze on water rates is not sustainable in the long-term, short-term relief is necessary and should be seriously considered by Zone 7. In our view, this can only be achieved with a 0% increase for the coming year. Attached is the City's resolution which formally states our position on the matter.

Thank you in advance for your serious consideration. We value our relationship with Zone 7 and look forward to continuing our partnership regionally on issues of mutual importance. If you would like to discuss the enclosed resolution or need additional information, please contact my office at (925) 931-5001 or Nelson Fialho, City Manager at (925) 931-5002.

Sincerely,

Jennifer Hosterman
Mayor

Enclosure: City of Pleasanton Resolution #11-479

c: Nelson Fialho, City Manager
Jill Duerig, Zone 7 General Manager
Daniel Smith, Director of Operation Services
✓ Dan Martin, Utilities Superintendent

MAYOR AND CITY COUNCIL
123 Main Street

P. O. Box 520, Pleasanton, CA 94566-0802

(925) 931-5001
Fax: 931-5482

RESOLUTION NO. 11-479

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PLEASANTON
ENCOURAGING THE ZONE 7 WATER AGENCY BOARD OF DIRECTORS TO
APPROVE A ZERO-PERCENT WATER RATE INCREASE IN 2012**

WHEREAS, the Zone 7 Water Agency Board of Directors is considering a wholesale treated water rate increase up to 10%; and

WHEREAS, due to the overall economy, it is important that local agencies limit cost increases that impact the general public and the regional economy; and

WHEREAS, the wholesale treated water rate has already increased 41.7% since the economic downturn in 2008; and

WHEREAS, the City of Pleasanton supports water conservation and the coordination of water activities and is committed to working with all local, regional and state agencies to develop water policies that minimize the need for water rate adjustments.

NOW, THEREFORE BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF PLEASANTON DOES RESOLVE, DECLARE, DETERMINE AND ORDER THE FOLLOWING:

SECTION 1. That the City of Pleasanton recommends that the Zone 7 Water Agency Board of Directors not approve any increase in 2012.

SECTION 2. That the City of Pleasanton encourages the Zone 7 Board of Directors to continue to facilitate opportunities for comment from its water users and the general public on matters related to water rates.

SECTION 3. In the event that the Zone 7 Water Agency Board of Directors is not considering an option of a zero-percent water rate increase for 2012, a special meeting of the Pleasanton and Zone 7 liaison members is requested prior to the adoption of any increase.

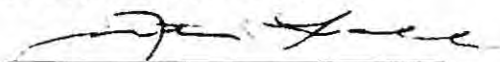
PASSED, APPROVED AND ADOPTED by the City Council of the City of Pleasanton at a regular meeting held on 4th day of October, 2011

I, Karen Diaz, City Clerk of the City of Pleasanton, California, certify that the foregoing resolution was adopted by the City Council at a regular meeting held on the 4th day of October, 2011, by the following vote:

Ayes: Councilmembers McGovern, Thorne, Mayor Hosterman
Noes: None
Absent: Councilmembers Cook-Kallio, Sullivan
Abstain: None


Karen Diaz, City Clerk

APPROVED AS TO FORM:


Jonathan P. Lowell, City Attorney



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING DIVISION: Finance and Business Services
CONTACT PERSON: Tamara Baptista

AGENDA DATE: October 19, 2011

ITEM NO. 8

SUBJECT: Untreated Water Rates for 2012

SUMMARY:

For calendar year 2012:

- The proposed untreated water rate is \$92/acre-foot (AF).
- The proposed temporary untreated water rate is \$466/AF.
- The proposed non-scheduled untreated water rate is \$466/AF.
- The proposed surplus untreated water rate is \$216/AF.
- The proposed rates include an additional Delta charge of \$20/AF.

FUNDING:

The proposed rates determine the amount of revenue from untreated water sales as a part of operating the Water Enterprise (Fund 52), which equates to approximately \$373,428 if the projected demand of 4,059 AF is realized.

RECOMMENDED ACTION:

Adopt the attached resolution to approve, for 2012, an Untreated Water rate of \$92/AF, a Temporary Untreated Water rate of \$466/AF, a Non-Scheduled Untreated Water rate of \$466/AF and a Surplus Untreated Water rate of \$216/AF.

MEMORANDUM

DATE: October 19, 2011
TO: Jill Duerig, General Manager
FROM: Tamara Baptista, Financial & Systems Services Manager
John Yue, Assistant General Manager, Finance

SUBJECT: Untreated Water Rate Schedules for 2012

SUMMARY:

For calendar year 2012, staff proposes the following:

- The proposed untreated water rate is \$92/acre-foot (AF).
- The proposed temporary untreated water rate is \$466/AF.
- The proposed non-scheduled untreated water rate is \$466/AF.
- The proposed surplus untreated water rate is \$216/AF.
- The proposed rates include an additional Delta charge of \$20/AF.

BACKGROUND/DISCUSSION:

Untreated – The Untreated Water Rate is based on the cost of State Water Project water transportation variable charges, Byron-Bethany Irrigation District (BBID) water, Del Valle Water Rights, Yuba Dry Year Water Purchase Program, Bay-Delta related costs and an administrative fee based on actual staff costs. BBID, Del Valle Water and the Yuba Dry Year Water Purchase Program are sources of imported water, which can be used for untreated customers. The administrative fee is actual staff time spent on administering the untreated water program, including the contracts. The labor is calculated based on the amount of hours individual staff work on untreated water related projects divided by the volume of water. The proposed rate of \$92 per AF, which includes a \$20/AF Bay-Delta charge, represents a decrease of approximately 5% compared to the current rate. In order to encourage more accurate delivery requests, the charge of \$50/AF for scheduled but unused approved volume remains unchanged from 2011.

Temporary Untreated – The need for temporary services results from the inability of customers to obtain water in the outlying areas of the valley. The use of these services is limited. The temporary untreated water rate is based on the estimated cost of water from the State Water Project, Bay Delta costs and the Byron-Bethany Irrigation District divided by the estimated customer deliveries minus the estimated available water from the Del Valle reservoir plus an administrative cost component based on actual staff costs. The proposed rate for temporary untreated water is \$466/AF or \$1.43 per 1,000 gallons. The use of these services is limited.

Non-Scheduled Untreated Water – Non-scheduled water is all untreated water deliveries exceeding scheduled deliveries by more than 10% in any year. It is based upon the temporary untreated water rate. The proposed rate for non-scheduled untreated water is \$466/AF.

Surplus Untreated – Surplus water deliveries are available only in years when the supplies exceed our customer's demands. Tentative surplus water delivery requests are submitted to Zone 7 by March 15 of each year; availability of surplus water is determined in April; and actual deliveries are announced in May. The rate fluctuates depending on the source of the surplus. However, in order to establish a rate, staff is recommending that the rate for 2012 be maintained at the Byron-Bethany Irrigation District water transfer cost, the cost of transporting water, and the Bay-Delta charge, \$20 per acre-foot. The effective rate thus calculated would be \$216 per acre-foot.

RECOMMENDED ACTION:

Adopt the attached resolution to approve, for 2012, an Untreated Water rate of \$92/AF, a Temporary Untreated Water rate of \$466/AF, a Non-Scheduled Untreated Water rate of \$466/AF and a Surplus Untreated Water rate of \$216/AF.

Untreated Water Rate Calculations for 2012	
1. Volume of Treated & Untreated Water to be delivered to Contractors	42,273
Water Costs	Amount
2. BBID cost	\$502,740
3. YUBA Dry Year Program Costs	\$60,000
4. Del Valle Water Rights	\$3,000
5. Unit Fixed Cost (2+3+4)/1	\$13.38/AF
6. SWP Transportation Variable Unit Cost	\$48.24/AF
7. Subtotal Unit Cost (5+6)	\$61.62/AF
8. Zone 7 Administrative costs	\$9.91/AF
9. Delta Charge	\$20/AF
10. Total Unit Cost (6+7)	\$92/AF

Temporary Untreated Water Rate Calculation for 2012	
1. Volume of Treated & Untreated Water estimated to be delivered to Contractors (A/F)	42,273
2. Amount Available from Del Valle Reservoir	0
3. Net Volume of Treated & Untreated Water estimated to be delivered (A/F)	42,273
Estimated Expenses	Amount
4. a) State Water Supply	\$14,800,437
b) Off-Aqueduct Power Facilities	\$1,109,206
c) Variable Transportation Water Charges	\$2,039,093
d) Byron Bethany Irrigation District (BBID) Costs	\$502,740
5. Total Expenses	\$18,451,476
6. Unit Cost per AF(5 ÷ 3)	\$436.48
7. Zone 7 Staff costs per AF	\$9.91
8. Delta Charge per AF	\$20.00
9. Total Unit Cost with Delta Charge (6+7+8) in \$ per AF	\$466.39
Or in \$ per 1,000 gallons	\$466.00
	\$1.43

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

Adoption of the Untreated Water Rates for 2012

BE IT RESOLVED by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District that the following rate schedule for Untreated Water, Temporary Untreated Water, Non-Scheduled Untreated, and Surplus Untreated Water Services, be adopted:

FIRST, for Untreated Water Service, a SERVICE CHARGE of \$24.00 per month per metered service; and

A DELIVERY CHARGE of \$92 per acre-foot for all metered water delivered to each customer per month for the following use classifications, which includes the additional Bay-Delta Charge.

A charge of \$50 per acre-foot for all water scheduled but unused in each customer's approved delivery schedule for that year.

SECOND, for Temporary Untreated Water Service, an initial service establishment charge of \$125.00 per turnout for each new direct connection to the Zone system or a system supplying the Zone system; and

A monthly service charge of \$21.00 per turnout; and

A charge of \$1.43 per 1000 gallons for temporary untreated water service, which includes the additional Bay-Delta charge, for all water delivered monthly based on total meter readings or as may be otherwise determined by Zone 7.

THIRD, for Non-Scheduled Untreated Service, a delivery charge of \$466 per acre-foot for all non-scheduled untreated water delivered to each customer which includes the additional Bay-Delta charge.

FOURTH, for Surplus Untreated Water Service, a delivery charge of \$216 per acre-foot for all surplus untreated water delivered to each customer which includes the additional Bay-Delta charge.

BE IT FURTHER RESOLVED that said rate schedule for Untreated Water Services, collectively, as adopted herein shall be effective on January 1, 2012 and shall end on the next effective date for such water rates as adopted by the Board.

BE IT FURTHER RESOLVED that the General Manager of Zone 7 of Alameda County Flood Control and Water Conservation District is hereby authorized to continue to enter into, renew, modify and otherwise administer all Temporary Untreated Water Service agreements in accordance with said rate schedules adopted herein and as may be modified from time to time.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on

October 19, 2011

By _____
President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: FINANCIAL AND SYSTEM SERVICES
CONTACT: JAVIA GREEN

AGENDA DATE: October 19, 2011

ITEM NO. 9

SUBJECT: Draft Fiscal Year 12/13 Capital Improvement Program:
- Ten-Year Water System Plan
- Five-Year Flood Protection Plan

SUMMARY:

- Staff has prepared the Draft Fiscal Year (FY) 12/13 Capital Improvement Program (CIP) document, which identifies the capital projects and programs needed to carry out the goals and policy objectives of the agency. The CIP describes the projects, costs, schedules, and priorities for the next five and ten-year periods, starting with FY 12/13 for the Flood Protection and Water Systems, respectively. The Draft CIP document is available on the Zone 7 website.
- Staff met with the Retailers on August 22, 2011 to provide an overview of the draft CIP. In addition, the Draft CIP Executive Summary was presented to the Zone 7 Finance Committee on August 29, 2011 and at the Zone 7 Board meeting on September 21, 2011. The Board recommended bringing the CIP forward for adoption at its October 19, 2011 meeting.
- Staff will give a presentation summarizing the Draft CIP. Staff recommends that the Board adopt the Draft FY 12/13 CIP document as the Final FY 12/13 CIP document.

FUNDING:

The Water System CIP is funded through Fund 72 – Renewal/Replacement and System-Wide Improvements, and Fund 73 – Expansion. The Flood Protection CIP is funded through Fund 50 – General Fund/Flood Control and Fund 76 – Flood Protection and Storm Water Drainage Fund.

RECOMMENDED ACTION:

Adopt the Draft FY 12/13 Capital Improvement Program document.

Attachments:

Zone 7 Board Resolution

Draft FY 12/13 Capital Improvement Program document

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY
SECONDED BY

Zone 7 Fiscal Year 2012/13 Capital Improvement Program
Ten-Year Water System Plan and Five-Year Flood Protection Plan

BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby adopt the Fiscal Year 2012/13 Capital Improvement Program document.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution
adopted by the Board of Directors of Zone 7 of Alameda
County Flood Control and Water Conservation District on

October 19, 2011

By _____
President, Board of Directors



New Solar Panels at the Del Valle Water Treatment Plant

Z o n e 7 W a t e r A g e n c y

Fiscal Year 2012/13
Draft Capital Improvement Program
Ten-Year Water System Plan
Five-Year Flood Protection Plan

October 2011





Zone 7 Water Agency 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 the water resources in a fiscally responsible, innovative, proactive and environmentally sensitive way.



Fiscal Year 2012/13 Draft Capital Improvement Program

Ten-Year Water System Plan
Five-Year Flood Protection Plan

Prepared by:

Zone 7 Finance and Engineering Staff

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2. Reliability Policy for Municipal & Industrial Water Supplies
3. Water Quality Policy for Potable and Non-Potable Water
4. Policy Principles and Joint Resolution of the City Council of the City of Pleasanton, the Board of Directors of the Dublin San Ramon Services District and the Board of Directors of the Zone 7 Water Agency Regarding Water Quality

B – 2011 Asset Management Program Update Board Resolution

C – Water System Project Prioritization Criteria

D – Zone 7 Water Agency Strategic Planning Priorities

Acronyms and Terms Glossary

The following abbreviations and acronyms are used in the report:

af or AF	acre-feet
afa or AFA	acre-feet per year
AMP	Asset Management Program
COL	Chain of Lakes
CCI	Construction Cost Index
CWS	California Water Service
cfs	cubic feet per second
CIP	Capital Improvement Program
CUWA	California Urban Water Agencies
DIF	Development Impact Fee
DSRSD	Dublin San Ramon Services District
DV	Dougherty Valley
DVWTP	Del Valle Water Treatment Plant
DWR	California Department of Water Resources
ENR	Engineering News-Record
FY	Fiscal year
ISA	Installment Sale Agreement
gpd	Gallons per day
gpcd	Gallons per capita per day
GWMP	Groundwater Management Plan
LAVWMA	Livermore Amador Valley Water Management Authority
LDV	Lake Del Valle
MDD	Maximum day demand
MCL	Maximum Contaminant Level
MEIR	Master Environmental Impact Report
MGD or mgd	Million gallons per day
MOU	Memorandum of Understanding
M&I	Municipal & Industrial
MWQI	Municipal Water Quality Investigation
O&M	Operations and Maintenance

Acronyms and Terms Glossary

PPWTP	Patterson Pass Water Treatment Plant
R/R	Renewal/Replacement
SBA	South Bay Aqueduct
SDA	Special Drainage Area
SMMP	Stream Management Master Plan
SNMP	Salt Nutrient Management Plan
SWI	System-Wide Improvements
SWP	State Water Project
SWRU	Stored Water Recovery Unit
UWMP	Urban Water Management Plan
WSE	Water Supply Evaluation
WTP	Water Treatment Plant
Zone 7	Zone 7 Water Agency



EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

Background

On a biennial basis, Zone 7 Water Agency (Zone 7) prepares a Capital Improvement Program (CIP) document, which outlines the plans for capital projects and programs needed to carry out the goals and policy objectives of the agency. The CIP incorporates the projects, costs, schedules, and priorities for the next five and ten years starting with FY 12/13, for the Flood Protection and Water Systems, respectively.

The last CIP was adopted in October 2009, whereby the Zone 7 Board of Directors (Board) resolved to review and adopt the CIP document on a biennial basis. Since 2009, Zone 7 has undertaken many planning efforts, specifically the Asset Management Program (AMP) Update, 2010 Urban Water Management Plan (UWMP) and Water Supply Evaluation (WSE). Collectively, these studies have identified: 1) the types of renewal/replacement and improvement projects needed maintain a reliable and efficient water system; 2) current and projected demands on our water system and Zone 7's facilities needed to meet such demands and; 3) operational improvements and additional studies that will minimize near-term risks of water supply shortages and maximize long-term flexibility. These studies provided a roadmap for the scope and scheduling of new water system projects recommended in this CIP.



Purpose

This Executive Summary provides an overview of the proposed Water and Flood Protection capital plan, changes since the last CIP, key projects and the financial condition of the various capital funds.

Systems and Sources of Funds

The CIP plans for two Systems (Water System and Flood Protection) and is funded by four sources of funds:

- Water System
 - Expansion – Fund 73 – Connection Fees
 - Renewal/Replacement – Fund 72 – Indirectly from Water Rates
 - System-Wide Improvements – Fund 72 – Indirectly from Water Rates
- Flood Protection
 - General Flood Protection – Fund 50 – Property Taxes
 - Flood Protection and Stormwater Drainage – Fund 76 – Development Impact Fees

Water System CIP Overview

A primary function of the CIP is to provide Zone 7's Executive Staff and Board with a clear and orderly process for planning and budgeting for capital needs and for making informed decisions with regard to project priorities and scheduling.

Various capital projects and programs are needed to ensure a reliable and high quality water supply in accordance with the mission, goals and policy objectives established by the Board. These projects anticipate the need to renew, replace and improve existing infrastructure (paid from Fund 72, Renewal/Replacement and System-Wide Improvements) and to construct new facilities needed to accommodate future growth (Fund 73, Expansion).

For the Ten-Year Water System CIP period (FY 12/13 through FY 21/22), eighty-five Water System projects have been identified totaling \$468 million. Projects are categorized into the following eight program areas shown in the table below.

- Buildings & Grounds
- Groundwater Basin Management
- Program Management
- Regulatory Compliance
- Transmission and Distribution
- Water Supply and Conveyance
- Water Treatment Facilities
- Wells

Water System CIP Breakdown by Program (\$ Millions)

Program	Fiscal Year	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	Total
Buildings & Grounds		1.35	1.37	1.93	1.98	2.02	2.07	2.11	0.00	0.00	0.00	12.83
Groundwater Basin Management		0.77	0.32	0.00	0.74	0.00	0.13	0.00	0.13	0.75	0.14	2.98
Program Management		0.79	0.65	0.16	0.47	0.17	0.26	0.19	0.26	0.50	0.28	3.73
Regulatory Compliance Monitoring		0.17	0.16	0.12	0.13	0.13	0.13	0.14	0.15	0.16	0.16	1.45
Transmission & Distribution		0.00	0.68	0.00	0.06	0.00	0.00	0.28	1.37	5.00	14.25	21.64
Water Supply & Conveyance		20.86	23.22	23.62	24.21	31.67	30.87	25.42	29.11	44.11	28.61	281.72
Water Treatment Facilities		10.97	4.95	5.98	9.97	10.59	7.51	1.83	4.89	15.49	33.05	105.23
Wells		0.33	0.00	0.20	1.89	11.24	18.85	1.64	0.56	1.23	2.58	38.52
Total		35.24	31.35	32.02	39.45	55.83	59.82	31.61	36.47	67.24	79.07	468.10

The planned FY 12/13 Ten-Year Water System CIP appropriations total \$468 million, which is approximately \$174 million or about 27% less than the FY 10/11 Ten-Year CIP total of \$642 million. This is due to the scheduling of many Expansion projects outside of the ten-year CIP planning horizon as result of the slowdown in growth.

The table below presents the appropriations for the Ten-Year Water System CIP by Fund.

Water System CIP Fund Breakdown

Strategy	Ten-Year Total (\$ Millions)	Percentage
Expansion*	\$349	74%
Renewal/Replacement	\$48	10%
System-Wide Improvements**	\$71	15%
Total	\$468	100%

*Includes \$194 million in non-discretionary obligations further described on page four.

**Includes \$43 million for ozonation at DVWTP and PPWTP. The total cost is estimated at \$54.3 million; in-service date is June 2023.

Fund 73 - Expansion Program

Over the past five years new connections to our water system have slowed significantly from the rapid growth experienced in the early 2000's. Recent demand analysis projects service area build-out sometime between 2035 and 2040, which is ten years later than the previous estimate of 2025-2030. Most major Expansion projects have been deferred correspondingly by 8 to 10 years to mirror projected demands on our system. As an example, the Water Supply Evaluation determined that Zone 7 can meet projected maximum day demands through 2022. This allows Zone 7 to defer construction of additional surface water treatment capacity until sometime after 2022. Other major Expansion project deferrals are listed in Table ES-1 below.

Table ES-1. Changes in Recommended In-Service Dates of Major Expansion Projects

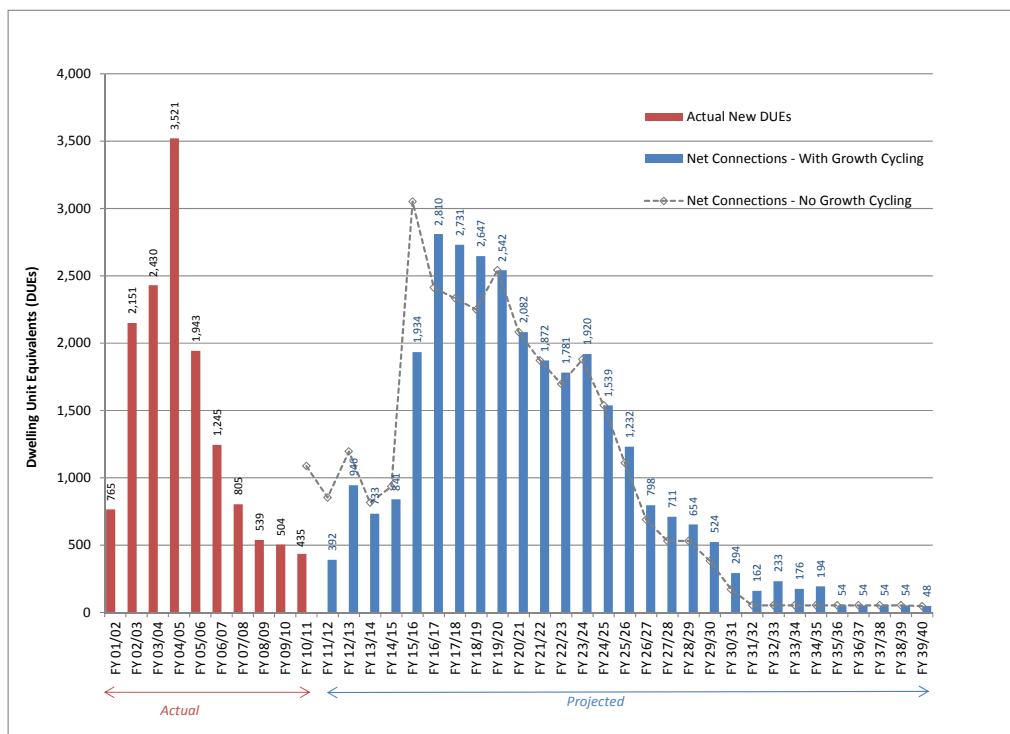
Project	Previous CIP In-Service Date	Recommended CIP In-Service Date
Altamont Water Treatment Plant (24 MGD) Phase 1	2016	Water Treatment Plant Expansion (24 MGD) – 2025
Altamont Pipeline – County Reach	2015	New Transmission System Pipeline – 2025
Chain of Lakes Wells 3, 4 and 5	2016	2020
Bernal Wells 1 and 2	2019	2030
Busch Valley Well 1	2020	2025
Second Demineralization Facility	2018	2028

Fund 73 - Expansion Program Funding

Concurrent with the development of this CIP, staff also completed an update to the current Treated Water Connection Fee Program. The Treated Water Connection Fee Program was established to ensure that Zone 7 is able to fund the necessary projects within Zone 7's Water System Expansion Program, which serves the demands of new growth over the next 30 years (2011-2040).

Based on connection and water demand projections provided by the Retailers, staff developed a valley-wide projection of connections through build-out. Actual connections from FY 01/02 through FY 10/11, and projected connections from FY 11/12 through build-out are shown in Figure ES-1.

Figure ES-1. Actual and Projected Net Connections with and without Growth Cycling*



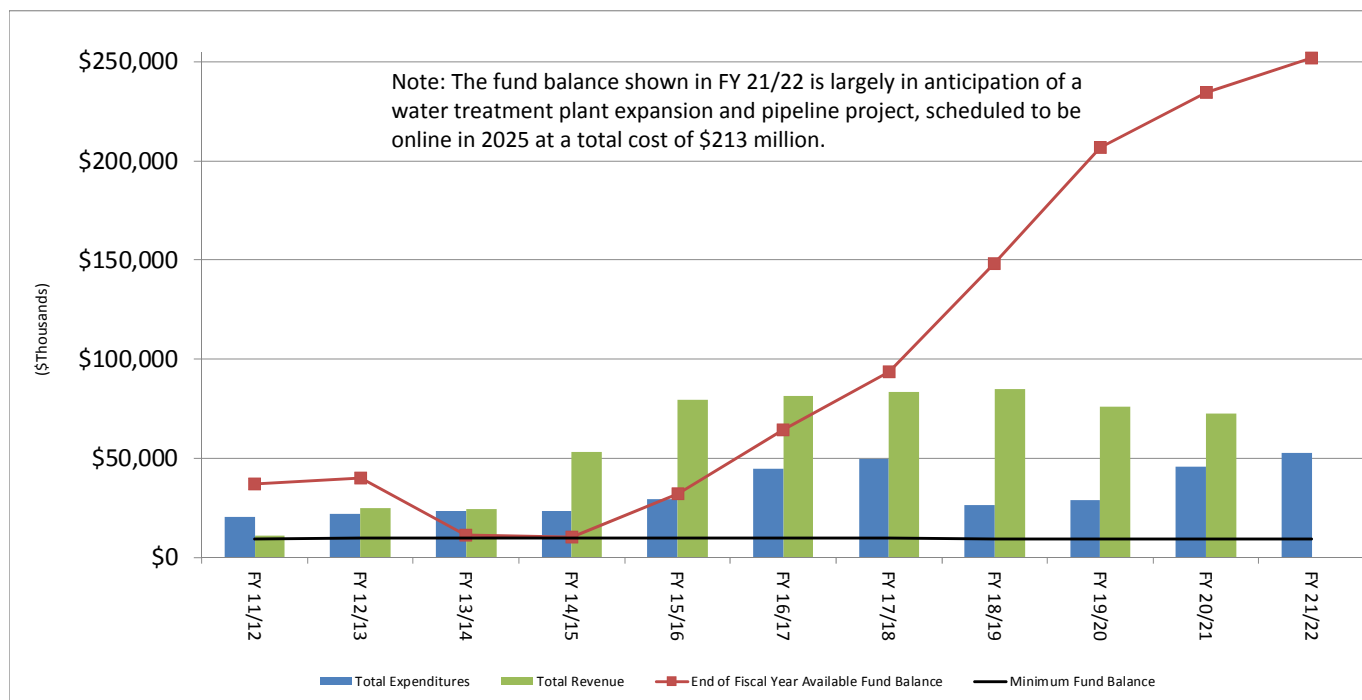
*Net connections are calculated from the gross connections adjusted for prepaid connections and credits. Net connections with growth cycling was used for the revenue projections. This growth cycling concept assumes only 70% of the first five years' projections are assumed to occur at that time and the remaining 30% are assumed to occur over FY 25/26 through FY 34/35.

This CIP plans for a total expenditure of \$348 million in Expansion projects starting in FY 12/13 through FY 21/22. Of this amount, non-discretionary obligations total \$194 million. These projects are payments to other agencies, such as the Department of Water Resources, that Zone 7 is obligated to pay. These include:

- South Bay Aqueduct (SBA) Enlargement
- Fourth Contactor's Share of the SBA
- Fixed Cost of Water Entitlement
- State Water Project Peaking Payment (Lost Hills and Belridge Water Districts)
- Cawelo Groundwater Banking Program
- Semitropic Stored Water Recovery Unit
- Bay-Delta Conservation Plan & Delta Habitat Conservation and Conveyance Program
- Administrative and Engineering Building Lease
- Interest on Credit Line with Wells Fargo

In the scheduling and prioritization of Expansion projects, the first priority was to ensure there are adequate funds to pay non-discretionary obligations. For planning purposes, a minimum fund balance was set at 50% of the following year's non-discretionary obligations (~\$9.8) million annually). In accordance with Zone 7's current pay-as-you-go funding policy, the remaining projects were scheduled as projected demands on our system dictate and as funding is available. FigureES-2 below shows projected available funding in Fund 73 for the next ten years. Sufficient funding is projected to fund Expansion projects as planned in the CIP. The fund balance shown in FY 21/22 is largely in anticipation of a water treatment plant expansion and pipeline project, scheduled to be online in 2025 at a total cost of \$213 million.

Figure ES-2. Fund 73 Preliminary Funding Outlook



Fund 72 - Renewal/Replacement/System-Wide Improvements Program

On June 15, 2011, the Zone 7 Board adopted resolution 11-4092 accepting the Asset Management Program (AMP) Update. The principal goal of this update was to develop a rational and comprehensive plan that is consistent with utility practice, while building Retailer support for the program and its recommendations. The major objectives included identification of near-term renewal capital projects and development of a long-term renewal forecast and associated annual funding level necessary to implement future renewal and improvement needs. The Board-approved funding level targets resulting from this update have been incorporated in this CIP.

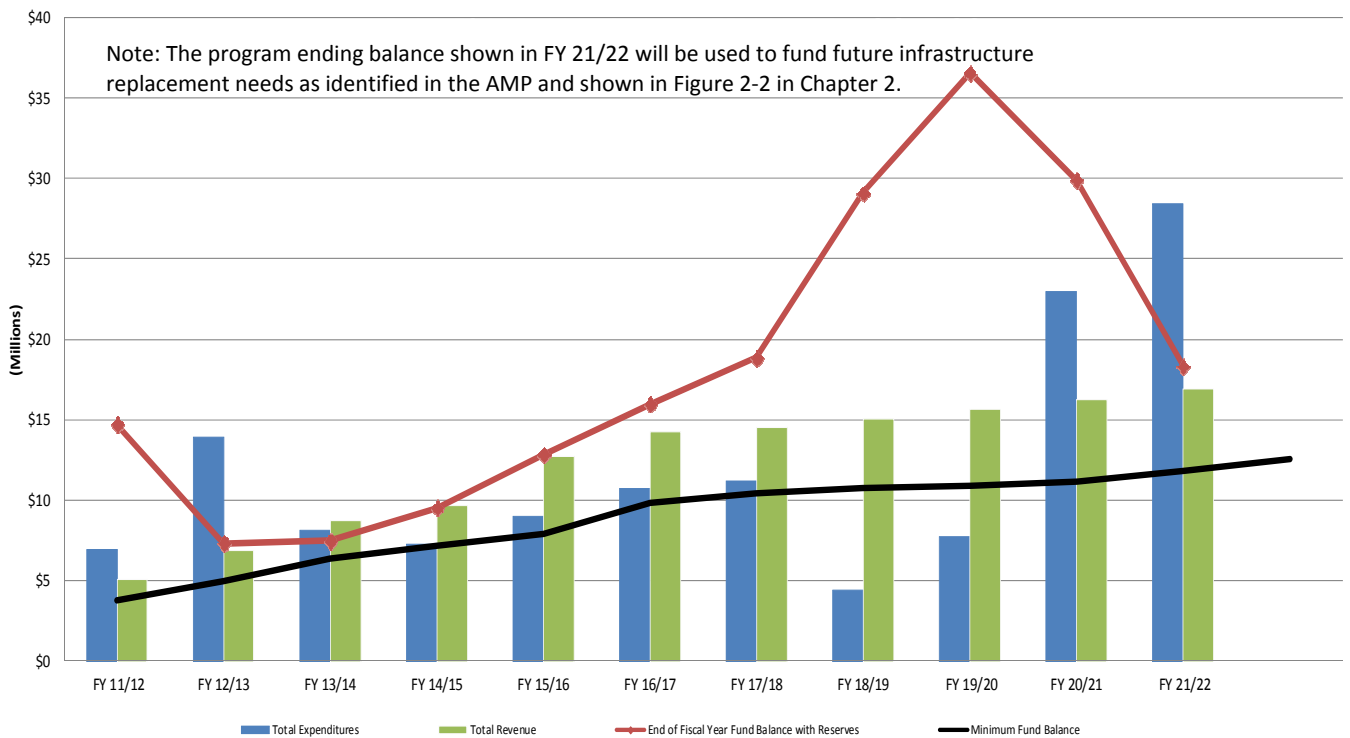
The planned Fund 72 projects in this CIP total \$119M. A large number of these projects are new projects identified in the AMP, WSE or new developments. A list of these new projects is below.

New Projects

- Arroyo del Valle Permit Extension
- Asset Management Program Management
- Chain of Lakes Facilities and Improvements - Water Supply
- CWS Turnout #4 Relocation/Replacement
- Distribution System Control Station Replacement
- DVWTP Chemical Tanks and Feed Pumps Replacement
- DVWTP Filter Media and Underdrain Replacement
- DVWTP Filter Valves Replacement (Phase 2)
- DVWTP HVAC Replacement
- DVWTP Rehabilitation Project
- DVWTP Superpulsator Rehabilitation
- DVWTP Valve Replacements for 3 MG Clearwell
- DWR Land Acquisition adjacent to PPWTP
- Hopyard Wellfield Pipeline – Connection with Hopyard Well No. 9
- Lakes H, I and Cope Facility Planning
- Maximize Yield from Existing Contract with BBID Study
- MGD R.O. Membrane Replacement
- Mocho 2 Well Improvements/Rehabilitation
- Mocho Well 2 - VFD Retrofit
- PPWTP Chemical Tanks and Pumps Replacement Phase I
- PPWTP Filter System Rehabilitation
- PPWTP Instrumentation Upgrades
- PPWTP Maintenance Yard and Building Improvements
- Reliability Intertie
- Water System Master Plan
- Wellfield Switchboard Replacement

The AMP transfer amounts approved by the Board in June 2011 provide sufficient funding for the Renewal/Replacement and System-Wide Improvement projects scheduled in CIP. The preliminary funding outlook for Fund 72 is shown in Figure ES-3 below.

Figure ES-3. Fund 72 Preliminary Funding Outlook



Flood Protection CIP Overview

Zone 7 plans and designs flood protection and stormwater drainage facilities that enhance management and control of stormwater runoff and drainage in the Livermore-Amador Valley. The agency conducts capital improvement activities that protect life and property from damage caused by stormwater runoff and drainage generated during large rainfall events. Zone 7's capital improvements include renewal/replacement and repair of existing facilities to maintain the integrity of the existing flood protection system, system-wide improvements that integrate local stormwater channels into one regional flood protection system, and developing capital projects to accommodate new impervious surface areas caused by new development.

Zone 7 projects \$40.5 million in capital expenditures over the next five years to support these programs. A breakdown by year is shown in the table below.

**Flood Protection System
Planned Annual Appropriations**

Strategy	12/13	13/14	14/15	15/16	16/17	Total
Expansion	1.19	2.08	1.02	4.68	5.98	14.96
Renewal/Replacement	1.39	1.43	1.56	1.62	1.68	7.68
System-Wide Improvements	2.69	4.46	1.42	4.16	5.17	17.89
Total	5.27	7.96	4.01	10.45	12.84	40.53

Zone 7 staff conducts a bi-annual review of capital improvement activities required for existing facilities. Based on this review, Zone 7 staff has identified the following capital improvement activities that will be conducted over the next five years:

- Administrative & Engineering Building
- Administrative & Engineering Building – Sinking Fund
- Access Roads
- Sediment Removal from Existing Channels
- Fences and Gates
- Landscaping and Hydroseeding
- Embankment Repair
- Asphalt Driveways
- Concrete V-Ditches
- New Drain Structures
- Vegetation Abatement
- Arroyo de la Laguna Improvement
- Stream Management Master Plan (SMMP) Update
- Development Impact Fee Update
- El Charro Specific Plan Improvements (R.5-2/R.5-3 – Portions)
- Flood Facilities – Chain of Lakes
- Lakes H, I, and Cope Lake Facility Planning
- R.1-7: Arroyo Las Positas at N. Vasco Improvements
- R.3-5: Arroyo Mocho - Stanley Reach Pilot Project
- R.8-3: Lower Arroyo Mocho
- Sediment Transport Study
- Steelhead and Related Studies

Fund 76 – Flood Protection and Storm Water Drainage Development Impact Fee

Of the projects listed above, \$15 million of the total are funded by Fund 76. Fund 76 - Flood Protection and Storm Water Drainage Development Impact Fee Fund holds all fees collected from future development in support of Zone 7's flood protection and stormwater drainage activities.

The Zone 7 Board approved the Stream Management Master Plan (SMMP) in August 2006. Subsequently, Zone 7 adopted Ordinance 2009-01 to establish the new development impact fee (DIF) necessary to support SMMP projects within the Alameda Creek Watershed. This study recommended a fee of \$1.423 per square-foot of impervious area created by new development. The calculation included \$11,981,769 as the starting balance (to be transferred from existing SDA funds). This fee was subsequently capped at \$1.10. Over the next few years, Zone 7 will undergo updates to the SMMP and DIF studies. These updates will reassess the projects and costs proposed in SMMP and also reevaluate the current fee structure.

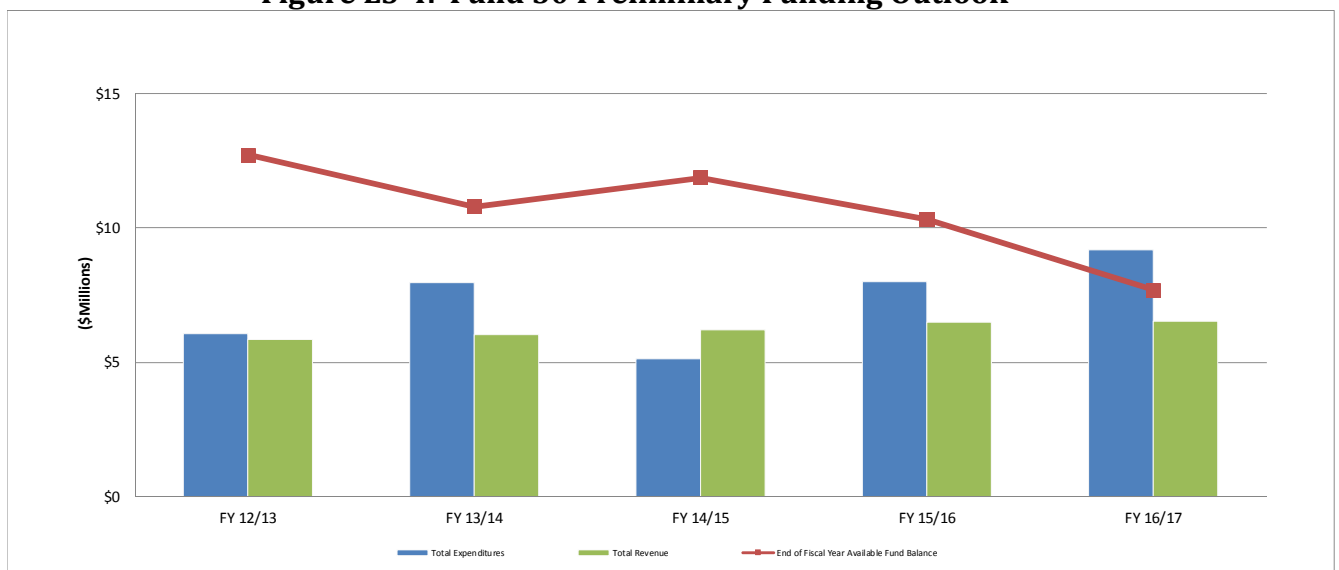
The SMMP and DIF identified \$222 million in flood protection projects to be funded by this fund. Incorporating the projected expenditures planned within this CIP, Zone 7 projects a fund balance of \$14.5 million in FY 16/17. This fund balance, along with other funding sources (to be examined in the DIF and SMMP updates) will be used to fund future flood protection and stormwater drainage projects identified in the SMMP.

Fund 50 – Flood Protection General Fund

Alameda County provides Zone 7 a portion of the taxes levied based on one percent (1%) of the assessed value of all properties within Zone 7's service area. The revenues that Zone 7 receives from Alameda County are placed into Fund 50, and are used to fund Flood Protection operations and maintenance, renewal/replacement and improvement projects. Of the projects listed above, Fund 50 will share \$26 million of the \$40.5 million in project costs identified.

Projected available funding for Fund 50 is shown in Figure ES-4. This outlook includes projected property tax revenue, interest earnings and projected expenditures as planned in the CIP. As with Fund 76, the fund balance shown in FY 16/17, along with other funding sources (to be examined in the DIF and SMMP updates) will be used to fund future flood protection projects identified in the SMMP.

Figure ES-4. Fund 50 Preliminary Funding Outlook





Wente Vineyard and Golf Course in Livermore

SECTION ONE

INTRODUCTION



SECTION 1 ~ INTRODUCTION

ABOUT ZONE 7

Zone 7 provides flood protection to all of eastern Alameda County and supplies treated drinking water to retailers serving 220,000 people in Pleasanton, Livermore, Dublin and, through special agreement with the Dublin San Ramon Services District, to the Dougherty Valley area. Zone 7 also supplies untreated water to 3,500 acres, primarily South Livermore Valley farms and vineyards. Figure 1 below shows the Zone 7 Service Area (in orange).

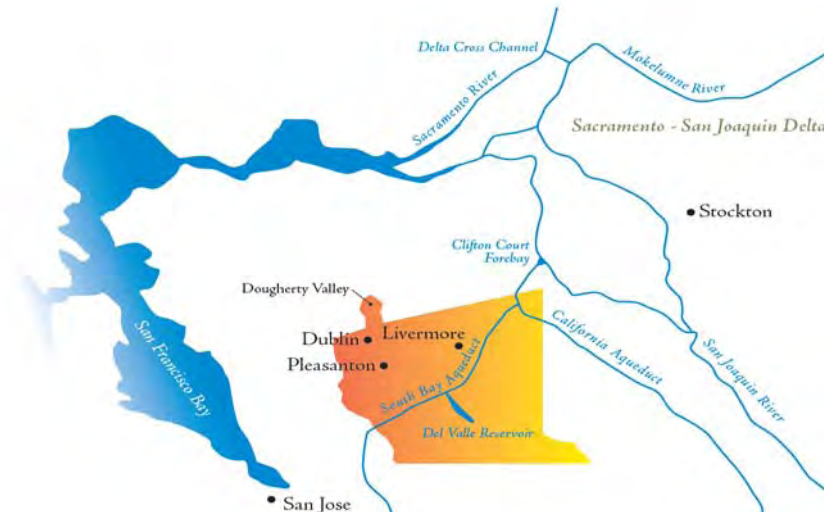
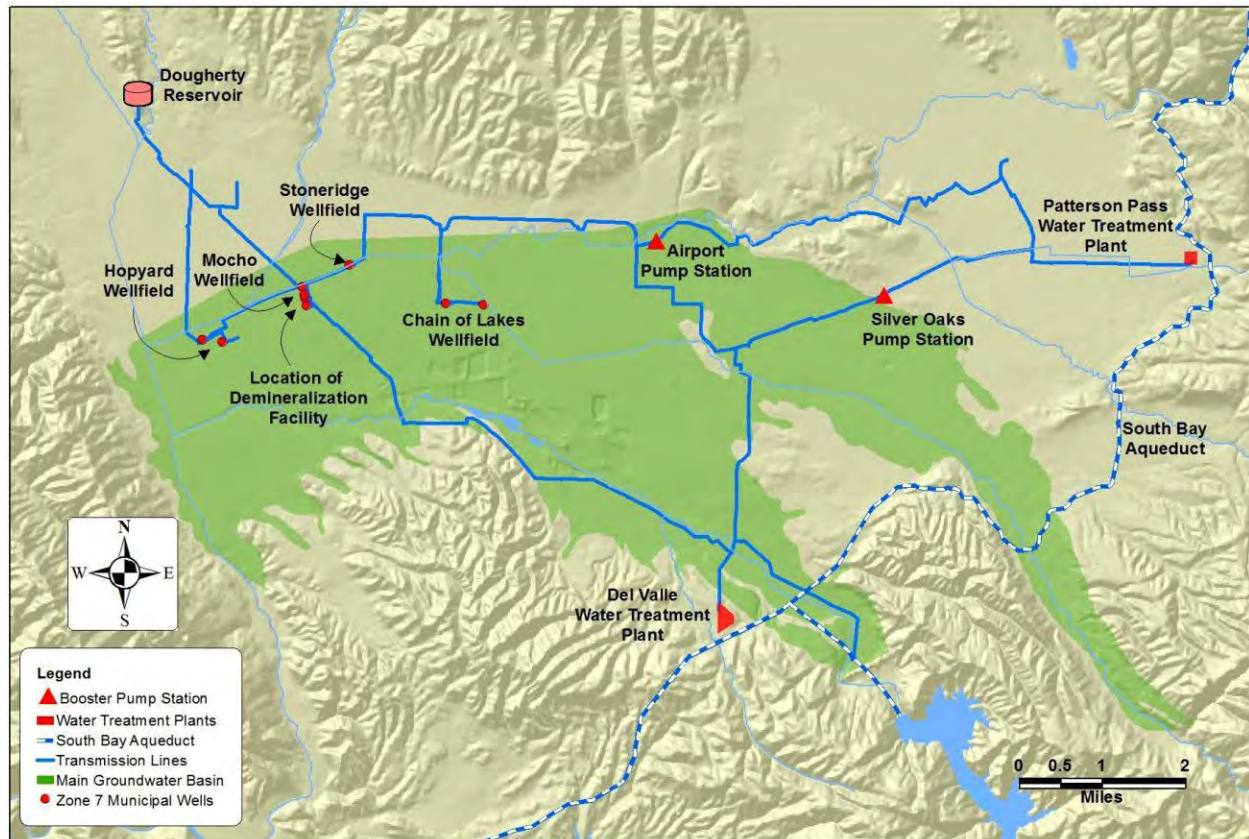


Figure 1-1. Zone 7 Service Area (shown in orange)

WATER SYSTEM

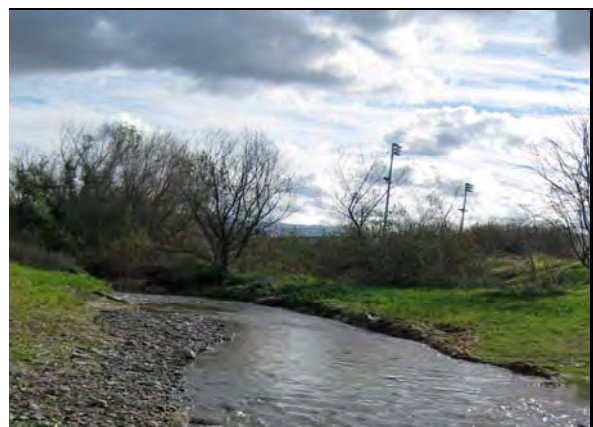
Zone 7's water supply originates as snowmelt in the Sierra Nevada, and makes its way here using the Sacramento-San Joaquin Delta (Delta) as a conveyance system. [The water is imported to the Livermore-Amador Valley through State Water Project's South Bay Aqueduct. Roughly 80% of Zone 7's water supplies are conveyed through the Delta and the remaining comes from local rain runoff stored at Lake Del Valle and from groundwater pumped from the Valley's groundwater basin.] Surface water is treated either at the Patterson Pass Conventional Water Treatment Plant, the Patterson Pass Ultrafiltration Water Treatment Plant or the Del Valle Water Treatment Plant. Groundwater production wells located in the Hopyard, Mocho, and Stoneridge wellfields provide 32 million gallons per day (MGD) of peak capacity, while the new Chain of Lakes Wells 1 and 2 supply an additional 9 MGD for use during emergencies or drought conditions. The Mocho Groundwater Demineralization Facility helps to reduce the total dissolved solids (salts) and hardness of groundwater supplies. Figure 1-2 on the following page shows Zone 7's major treated water system facilities.

Figure 1-2. Zone 7's Major Treated Water System Facilities



FLOOD PROTECTION

In addition to providing water to the Livermore-Amador Valley, Zone 7 owns and maintains 37 miles of local flood-protection channels, which is about a third of all the Valley's channels and creeks. The remaining channels are owned either privately or by other public agencies, which are responsible for repairs and maintenance. The Valley's storm drainage system begins at city-owned storm drains on local streets. Storm water flows through underground pipelines into creeks or man-made channels feeding into Arroyo Mocho, Arroyo las Positas and Arroyo del Valle. These larger channels converge with Arroyo de la Laguna, which ultimately drains into San Francisco Bay through Alameda Creek. In addition to flood protection, the channels also have recreational benefits and provide natural habitat.



Arroyo Mocho in Livermore

PURPOSE

On a biannual¹ basis, Zone 7 prepares the Capital Improvement Program document, which lays out the plan for the capital projects and programs needed to carry out the goals and policy objectives of the agency.

Specifically, this document:

- Communicates the projects, costs, schedules and priorities of Zone 7's capital improvement program for both the Flood Protection and Water Systems.
- Facilitates decision-making relative to project scheduling and resource allocations.
- Identifies how capital projects and programs will be paid for.

This document includes:

- A description of the CIP and the process used to develop the plan.
- Highlights of key projects; including the status of major capital projects.
- A description of each capital improvement project, including planned goals, justification, priority, operational impact, responsible section, in-service date, project costs, source of funds and cash flow.
- Cash flow projections for the various capital funds based on anticipated revenue and planned expenditures.

¹ With the adoption of resolution no. 10-3349, the Zone 7 Board approved updating and adopting the CIP on a biannual basis.

CIP STRUCTURE

The CIP consists of four primary levels. In descending order, these levels are: System, Strategy, Program, and Project.

SYSTEM

The highest level of capital improvement activities is a "System." A System is identified as a primary service that Zone 7 is responsible for providing to its community. Currently, the CIP has identified the following Systems:

Water System – pertains to the acquisition, conveyance, planning, design, distribution, land acquisition and construction of water supply facilities; treatment (for Municipal and Industrial customers), and maintenance of water supply facilities. This system also includes management of the groundwater basin and Chain of Lakes.

Flood Protection System – provides for the management, engineering, land acquisition, construction and operation and maintenance of flood protection facilities and the protection of watercourses, watersheds, public highways and life and property from damage or destruction from flooding. Also provides community (e.g., recreational) and environmental uses of the Valley's streams.

STRATEGY

The second level in the CIP structure is a "Strategy." A Strategy is a grouping of several programs that address the need to renew/replace, improve or expand Zone 7's Systems and have a common source of funding. There are three capital program strategies, which are common to both Systems.

- **Renewal/Replacement** focuses on existing facilities that have deteriorated or are in need of rehabilitation to maintain the established level of service to existing Zone 7 customers. [The Water System projects are funded by water rates, while Flood Protection Projects are funded by property taxes.]

- **System-Wide Improvements** addresses new regulatory requirements and enhancements to existing facilities that will improve operation and maintenance safety, flexibility, cost-effectiveness or optimize performance as necessary for existing Zone 7 customers. [The Water System projects are funded by Water Rates, while Flood Protection projects are funded by Property Taxes.]
- **Expansion** identifies the capital projects needed to meet the needs of new customers within Zone 7's service area. [The Water System projects are funded by water connection fees, while Flood Protection projects are funded by Development Impact Fees.]

PROGRAM

The third level in the CIP structure is a "Program." Programs represent a group of related projects combined to support various components of the Water System. There are currently nine capital programs:

- **Buildings & Grounds** addresses structures and supports facilities not directly involved in the supply, treatment, transmission or storage of water or flood protection.
- **Emergency Preparedness** addresses Zone 7's goals and desired capability for emergency response.
- **Flood Protection** facilities are capital projects that focus on the rehabilitation, improvement or annual major maintenance of the existing flood protection facilities that are planned and funded by Zone 7.
- **Groundwater Basin Management** focuses on Zone 7's responsibility to manage the local groundwater basin, which includes stabilizing and reducing the buildup of total dissolved solids and

hardness, and delivering high quality water to its customers.

- **Program Management** accounts for staff time and related costs associated with managing capital programs.
- **Regulatory Compliance Monitoring** ensures compliance with a range of existing and future regulatory and/or permitting requirements.
- **Transmission & Distribution** consists of projects that are required for the transmission of treated water to Zone 7 Retailers.
- **Water Supply & Conveyance** focuses on the planning and purchase of new water supplies and implementation of improvements required to convey raw water to Zone 7's surface water treatment plants, to local streams for recharge and to Zone 7's agricultural customers for their irrigation needs.
- **Water Treatment Facilities** addresses existing and proposed surface water treatment.
- **Wells** identifies facilities required to reliably maintain the production of groundwater deliveries during drought periods, peak demand periods and planned and unplanned outages of surface water treatment plants; also identifies facilities required to optimize conjunctive use and facilitate groundwater basin management.

PROJECT

The fourth level in the CIP structure is a "Project." A Project is a discrete set of capital improvement tasks with a dedicated Project Manager assigned to it. Prioritization, appropriation requests and projected spending (cash flow) are authorized at this

level. The FY 12/13 CIP has eighty-five Water System projects and twenty-five Flood Protection projects. The Water System CIP covers FY 12/13 – FY 21/22 and the Flood Protection CIP covers FY 12/13 – FY 16/17. Descriptions of the capital projects associated with the Water and Flood Protection System are located at the end of Sections 2 and 3, respectively.

CIP PREPARATION

The CIP document is prepared as a part of Zone 7's overall capital planning and budgeting process. The responsibilities for preparing and managing the CIP during the fiscal year are shared among three primary groups:

Program Management consists of Section Heads and Project Managers working together to meet the needs of the bi-annual CIP process and executing specific programs and projects during the fiscal year.

Project Managers are responsible for identifying new and updating current capital projects, their appropriations and cash flows. The Section Heads review and confirm proposed appropriations and cash flows within their programs, as well as identify resource constraints or conflicts.

CIP Manager is responsible for the overall management of the CIP during the capital budget process and throughout the fiscal year. Specific responsibilities include:

- Managing the CIP budget and planning systems and producing the CIP document.
- Ensuring Section Heads and Project Managers meet, review documents, coordinate efforts and resolve conflicts, accordingly.
- Providing staff support to and coordinating the transfer of information among the CIP Review Group, CIP

Prioritization Group, Section Heads and Project Managers.

- Ensuring CIP Review Group decisions are reflected in the CIP.
- Reviewing the adequacy of Zone 7 financial and staffing resources to complete proposed projects.

CIP Review Group is made up of internal agency staff that are responsible for ensuring that the CIP meets the goals and objectives of Zone 7's Mission Statement and policies. The group is comprised of the General Manager, Assistant General Manager of Operations & Engineering and Assistant General Manager of Finance, Engineering Manager, Operations Manager, Maintenance Manager, Facilities Supervisors, key Section Heads, Project Managers and a Finance Staff Analyst. The responsibilities of the group include:

- Reviewing the CIP document during its development for redundancies, cost-effectiveness, schedule and opportunities to add/delete/combine programs and projects.
- Confirming the adequacy of Zone 7 resources to complete proposed projects.
- Recommending necessary changes to project scope, schedule and budget that are within staff's administrative authority.

CIP Prioritization Group is an internal agency group consisting of the Assistant General Manager of Operations and Engineering, Engineering Manager, Operations Manager, Maintenance Manager and Finance Staff Analyst. This group's role is to:

- Prioritize and recommend the final list of projects to be presented within the CIP document to the General Manager and Board of Directors based on resources, available funding, and priority.
- Confirm proposed spending amounts for projects and programs and ensure appropriate justification is provided.
- Meet on a quarterly basis to review the status of the CIP, including the financial condition of the various capital funds.

PRIORITIZATION CRITERIA

Prioritizing projects is an important part of the CIP planning process. The project prioritization criteria provide a method to rank or rate the relative importance of a project based upon factors such as protection of health and safety, legal requirements and ability to provide and maintain levels of service to existing and future customers. The criteria (attached as Appendix C) were developed as an outgrowth of the recent Asset Management Plan Update, and are used to prepare preliminary rankings of CIP projects. The criteria provides a basis for decision-making regarding which projects will be implemented in any given year. In addition, they provide a basis for scheduling projects over the ten-year span of the CIP.

STRATEGIC PLANNING PRIORITIES

As part of Zone 7's recent strategic planning efforts and with input from Staff, the Zone 7 Board identified five general strategic planning priorities. These priorities were developed to ensure all Zone 7 efforts are focused on fulfilling the mission of the agency; and to further ensure the most immediate needs are addressed in an efficient and cost-effective manner. The five general priorities (listed below) include a number of specific strategic planning sub-priorities.

1. Assist retailers in providing their customers with a reliable, cost-effective and safe water supply.
2. Provide the valley with an effective system of flood protection.
3. Provide the Agency with effective organization, administration and governance.
4. Operate the Agency in a cost-effective manner.
5. Improve public understanding of the Agency and the challenges it faces with respect to accomplishing its core functions of water supply and flood protection.

The specific priorities assist Zone 7 staff in focusing its capital improvement project efforts while ensuring that each project pursued is aligned with the mission of the agency. To this end, each CIP project summary (at the ends of Sections 2 and 3), include the strategic planning sub-priorities that particular project fulfills. See Appendix D, Zone 7 Water Agency Strategic Planning Priorities, for more details and a listing of the priorities.

SOURCES OF FUNDING

Funding for Zone 7's Water System CIP is primarily from Municipal & Industrial (M&I) Connection Fees and Water Rates, while Flood Protection is funded by Property Taxes and Development Impact Fees (DIFs). Revenue derived from these rates and fees are deposited into the funds listed below. The rates and fees are reviewed and, if necessary, adjusted annually. When determining the funding source for each project, the relative benefit to each system and to existing and future customers is evaluated carefully. For general reference, a description of each Zone 7 fund is provided below. Funding analyses specific to the appropriate System are located in Sections 2 and 3.

Fund 72 – Renewal/ Replacement & System-Wide Improvements	Funds a project, or portion thereof, that relates to the replacement or improvement of existing water facilities, and which benefits existing customers. Funds are generated through water rates charged for the sale of water to current Zone 7 customers. Water rates are established based on the revenue required to operate and maintain the existing Water System including an allowance for Fund 72. Another source of revenue for Fund 72 is the Dougherty Valley facility use fees, which are charged to Dougherty Valley development. Per Amendment No. 1 of the Zone 7 and Dublin San Ramon Services District (DSRSD) Water Supply Contract, facility use fees are charged to the Dougherty Valley service area to compensate Zone 7 for the use of Zone 7's existing facilities to provide water to this area. Effective January 1, 2012 the facility use will be \$2,890 per new dwelling unit equivalent (DUE) connection, based on a 5/8" meter.
Fund 73 – Expansion	Funds a project, or portion thereof, that relates to additional demands on the existing Water System, which includes all water purchases; conveyance, treatment and transmission facilities; and associated costs (e.g., planning, design, construction, legal, administration, property acquisition, permitting). Revenue is generated from the collection of water connection fees for new water services. Connection fees are developed and adjusted with respect to the capital improvements required to meet future demands on the water system. Connection fees are paid when securing meters for a development. As of January 2012, the Zone 7 connection fee will be \$22,930 per DUE, based on a 5/8" meter. A separate connection fee of \$21,230 per DUE is assessed to the Dougherty Valley area in San Ramon, which DSRSD serves per Amendment No. 1 of the Zone 7 and DSRSD Water Supply Contract. The revenue generated from connection fees provides funding for the implementation of all expansion projects.
Fund 50 – Flood Protection/ General Fund	Funds a project, or portion thereof, that relates to the replacement or improvement of existing flood protection facilities, and which benefits existing customers. Revenue is generated from a portion of the ad valorem taxes levied based on one percent (1%) of the assessed value of all properties within Zone 7.

Fund 76 – Flood Protection and Storm Water Drainage Development Impact Fee	On March 18, 2009, the Zone 7 Board of Directors adopted Ordinance 2009-01, which replaced the Special Drainage Area (SDA) 7-1 development impact fee previously adopted by Zone 7.² The new ordinance also established the Flood Protection and Storm Water Drainage Development Impact Fee Fund (Fund 76); consequently, all funds from SDA Operations (Fund 71) and the SDA 7-1 Trust Fund (Fund 90) were transferred to Fund 76, while all of the outstanding SDA 7-1 exemption credits were liquidated.³ As of January 2011, this fee is \$1 per square foot of impervious surface area created. Fund 76 holds all fees collected from future development in support of Zone 7’s flood protection and storm water drainage activities. Section 3, Flood Protection describes Fund 76 in more detail.
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² Ordinance No. 00-2004-42 was repealed on March 18, 2009, the effective date of Ordinance 2009-01.

³ Per Ordinance 2009-01, the funds were transferred and existing exemption credits were liquidated on May 18, 2009.



A Recently Recoated Clearwell at DVWTP

SECTION TWO

WATER SYSTEM



SECTION II – WATER SYSTEM

INTRODUCTION

This chapter identifies the specific goals and proposed appropriations for the individual Strategies and Programs associated with the Water System over the next ten years starting with FY 12/13.

WATER SYSTEM GOALS

To ensure that the needs of Zone 7 customers are met, Zone 7 has set goals relative to water reliability, groundwater management and quality. These Water System goals, as defined by adopted Board policies, are outlined in the following pages. While every policy is subject to review and adjustment, the current policies can be found in Appendix A.

Water Reliability

Two water policy goals help guide Zone 7's capital and resource planning efforts. Adherence to these goals results in Zone 7 maintaining a highly reliable water supply system for existing and future water demands under varying hydrologic conditions.

WATER SUPPLY AND RELIABILITY	<i>RELIABILITY POLICY FOR MUNICIPAL AND INDUSTRIAL (M&I) WATER SUPPLIES (RESOLUTION NO. 04-2662)</i>	
	Goal 1:	Meet 100% of its treated water customers' water supply needs in accordance with Zone 7's most current contracts for M&I Water Supply, including existing and projected demands for the next twenty (20) years as specified in Zone 7's Urban Water Management Plan (UWMP), which will be coordinated with Zone 7's M&I water contractors. Zone 7 will endeavor to meet this goal during an average water year, a single dry water year, and multiple dry water years.
	Goal 2:	Provide sufficient treated water production capacity and infrastructure to meet at least 75% of the maximum daily M&I contractual demands should any one of Zone 7's major supply, production or transmission facilities experience an extended unplanned outage.
	Planning and Operational Criteria	In addition to the goals stated above, Zone 7 has a number of planning and operational criteria, which are associated with this Board resolution and are as follows: 1. Provide surface water treatment design capacity to meet 85% of the Zone 7 maximum day demand for reliability and operational flexibility. 2. Operate water supplies so that the groundwater basin levels do not drop below historic lows.

Groundwater Basin Management

The Livermore-Amador Valley's main groundwater basin has an estimated storage capacity of 250,000 acre-feet. The Groundwater Basin supplies about 20% of Valley-wide water demands and provides local storage to meet demands during dry years.

W A T E R Q U A L I T Y	GROUNDWATER MANAGEMENT PLAN (RESOLUTION NO. 06-2796)	
	Purpose	The Groundwater Management Plan (GMP) integrates various Zone 7 groundwater management policies and programs. One of these is the May 2004 Salt Management Plan (SMP), which was incorporated into the GMP and was approved by the State of California Regional Water Quality Control Board on September 24, 2004 as satisfying the requirements of Provision D.1.c.ii of the regional "Master Water Recycling Permit" order No. 93-159. This permit was issued to the Dublin San Ramon Services District (DSRSD), the City of Livermore and Zone 7, and authorizes the production and distribution of recycled water. The SMP sets forth a plan to facilitate recycling without degrading local water quality. In addition, the SMP goals are to maintain or improve groundwater mineral quality and delivered water quality through the following:
	Goal 1:	Protect and enhance the quality of groundwater.
	Goal 2:	Offset current and future salt loading, while facilitating reasonable regional recycled water use.
	Goal 3:	Maintain or improve groundwater mineral quality.
	Goal 4:	Provide more comparable delivered water quality to Retailers.
	Goal 5:	Utilize Water Operations Plans to achieve these goals.

Water Quality

All of water Zone 7's delivers to its Retailers meets or beats State and Federal health standards. However, surface water and groundwater taste, odor and/or appearance can often vary depending on the source, season or customer's location. To address these aesthetic concerns, Zone 7 has; 1) established self-imposed water quality targets which are more stringent than State and Federal regulations; and 2) developed a Water Quality Management Plan to assist in setting policies to address drinking and agricultural water-quality issues, shape operational decisions, establish capital facilities and set design standards.

WATER QUALITY	WATER QUALITY POLICY FOR POTABLE AND NON-POTABLE WATER (RESOLUTION NO. 03-2494)	
	Goal 1:	Zone 7 shall continue to meet all state and federal primary Maximum Contaminant Levels ¹ (MCLs) for potable water delivered to the M&I Contractors' turnouts, in accordance with existing water supply agreements.
	Goal 2:	Zone 7 shall meet all state and federal secondary MCLs ¹ in the potable water delivered to its M&I Contractors' turnouts. In addition, Zone 7 shall, within technical and fiscal constraints, proactively mitigate earthy-musty taste and odor events from surface water supplies and reduce hardness levels to "moderately hard", defined as 75 to 150 mg/L as CaCO ₃ . Also, Zone 7 shall optimize its treatment processes to minimize chlorinous odors by maintaining consistent disinfectant dosage and residual.
	Goal 3:	Goal 3: Zone 7 shall endeavor to deliver to its non-potable Contractor turnouts, from a variety of sources, water of a quality that meets the irrigation needs of its Contractors and does not negatively impact vegetation, crops, or soils.
	Goal 4:	In order to achieve Goals 1 through 3, Zone 7 shall continue to work to improve the quality of its source waters. This may be achieved through Zone 7's Salt Management Plan, which will maintain or improve the water quality in the groundwater basin, and through advocacy of improvements in the State Water Project, its facilities and their operations, which may improve the source water of Zone 7's surface water supplies. In addition, Zone 7 will encourage the retailers to take similar steps as those outlined in this policy to improve the quality of the retail customers' water.

¹ Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals (PHGs), or Maximum Contaminant Level Goals (MCLGs), as is economically and technically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Water Quality (continued)

Policy Principles and Joint Resolution of the City Council of the City of Pleasanton, the Board of Directors of the Dublin San Ramon Services District and the Board of Directors of the Zone 7 Water Agency Regarding Water Quality (Resolution No. 06-2783). This resolution establishes policy principles which guide all three agencies in developing programs and operational guidelines relating to improving water quality. A copy of this resolution can be found in Appendix A.



Zone 7's water quality team works to ensure a safe, high quality water supply.

OVERVIEW OF THE WATER SYSTEM CIP

A primary function of the CIP is to provide Zone 7's Executive Staff and Board with a clear and orderly process for planning and budgeting for capital needs and for making informed decisions with regard to project priorities and scheduling.

Various capital projects and programs are needed to ensure a reliable and high quality water supply in accordance with the mission, goals and policy objectives established by the Board. These projects anticipate the need to renew, replace and improve existing infrastructure (paid from Fund 72, Renewal/Replacement and System-Wide Improvements) and to construct new facilities needed to accommodate future growth (Fund 73, Expansion).

For the Ten-Year Water System CIP period (FY 12/13 through FY 21/22), eighty-five Water System projects have been identified totaling \$468 million. Projects are categorized into the following eight program areas shown in the table below.

- Buildings & Grounds
- Groundwater Basin Management
- Program Management
- Regulatory Compliance Monitoring
- Transmission and Distribution
- Water Supply and Conveyance
- Water Treatment Facilities
- Wells

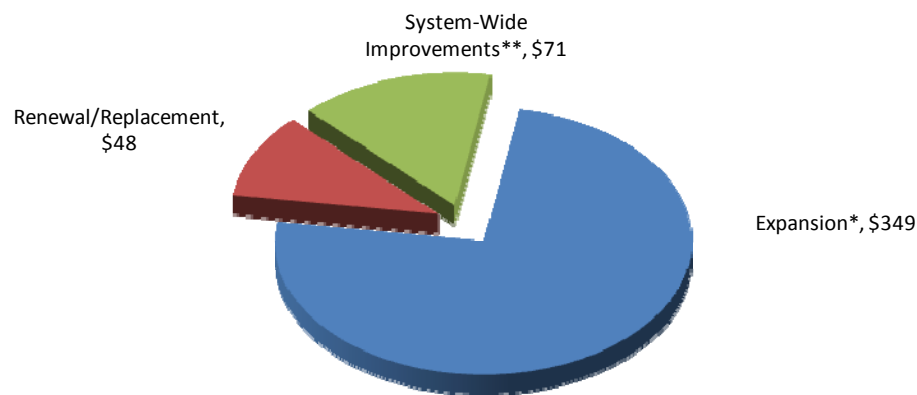
Water System CIP Breakdown by Program (\$ Millions)

Program	Fiscal Year	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	Total
Buildings & Grounds		1.35	1.37	1.93	1.98	2.02	2.07	2.11	0.00	0.00	0.00	12.83
Groundwater Basin Management		0.77	0.32	0.00	0.74	0.00	0.13	0.00	0.13	0.75	0.14	2.98
Program Management		0.79	0.65	0.16	0.47	0.17	0.26	0.19	0.26	0.50	0.28	3.73
Regulatory Compliance Monitoring		0.17	0.16	0.12	0.13	0.13	0.13	0.14	0.15	0.16	0.16	1.45
Transmission & Distribution		0.00	0.68	0.00	0.06	0.00	0.00	0.28	1.37	5.00	14.25	21.64
Water Supply & Conveyance		20.86	23.22	23.62	24.21	31.67	30.87	25.42	29.11	44.11	28.61	281.72
Water Treatment Facilities		10.97	4.95	5.98	9.97	10.59	7.51	1.83	4.89	15.49	33.05	105.23
Wells		0.33	0.00	0.20	1.89	11.24	18.85	1.64	0.56	1.23	2.58	38.52
Total		35.24	31.35	32.02	39.45	55.83	59.82	31.61	36.47	67.24	79.07	468.10

The Water System CIP is categorized into these three strategies: Renewal/Replacement(R/R), System-Wide Improvements (SWI), and Expansion. R/R and SWI (Fund 72) are funded by water rates paid by existing customers via an annual transfer from Fund 52 – Water Enterprise (water rate revenue initially accrues to this fund) to Fund 72. Expansion (Fund 73) is funded by connection fees paid by new development.

The following charts and tables present the planned annual and ten-year total appropriations for the Ten-Year CIP by Strategy, Fiscal Year and Program.

**Water System
Ten-Year CIP 12/13 – FY 21/22)
Strategy Breakdown** (shown in millions)

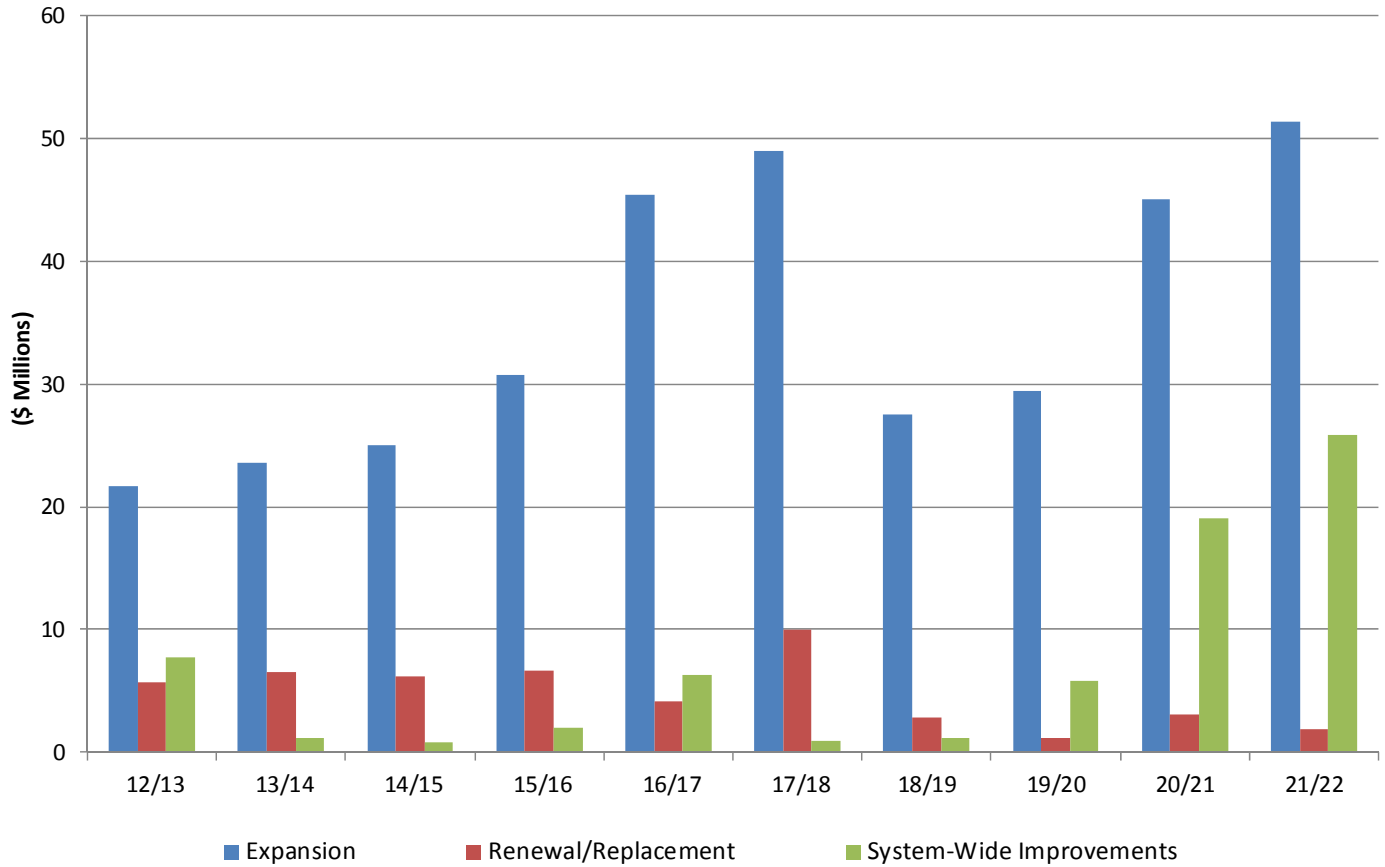


Strategy	Ten-Year Total (\$ Millions)	Percentage
Expansion*	\$349	74%
Renewal/Replacement	\$48	10%
System-Wide Improvements**	\$71	15%
Total	\$468	100%

*Includes \$194 million in non-discretionary obligations further described on page 2-25.

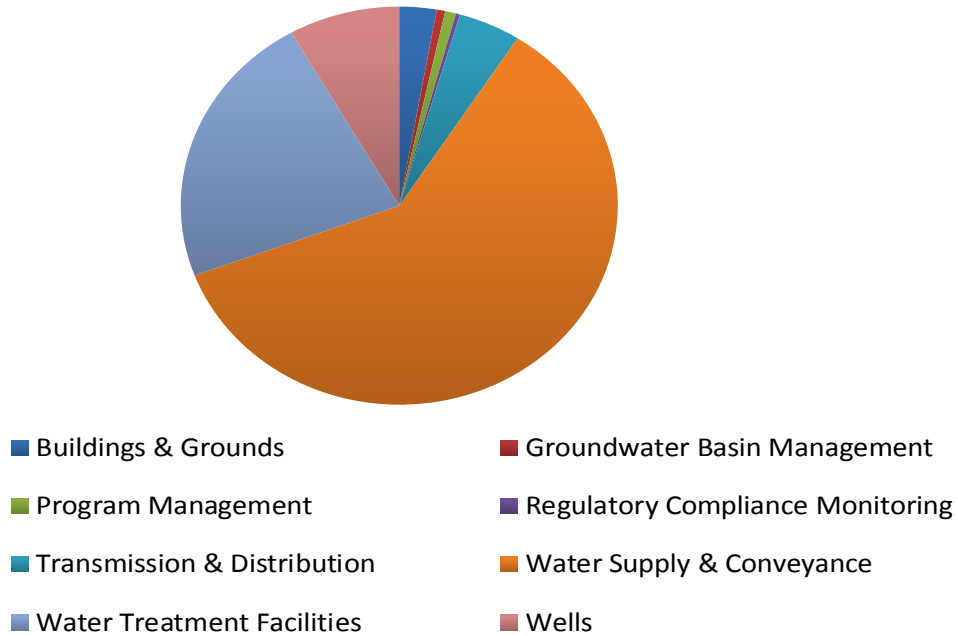
**Includes \$43 million for ozonation at DVWTP and PPWTP. The total project cost, including cost beyond FY 21/22, is estimated at \$54.3 million; in-service date is June 2023.

Water System
Ten-Year CIP (FY 12/13 – FY 21/22)
Planned Appropriations by Strategy and Fiscal Year
(\$ Millions)



Strategy (FY)	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	Total
Expansion	21.69	23.52	25.07	30.76	45.44	48.92	27.50	29.47	45.01	51.34	348.70
Renewal/Replacement	5.77	6.59	6.13	6.67	4.12	10.01	2.89	1.20	3.14	1.94	48.45
System-Wide Improvements	7.79	1.24	0.82	2.03	6.27	0.89	1.23	5.81	19.10	25.79	70.95
Total	35.24	31.35	32.02	39.45	55.83	59.82	31.61	36.47	67.24	79.07	468.10

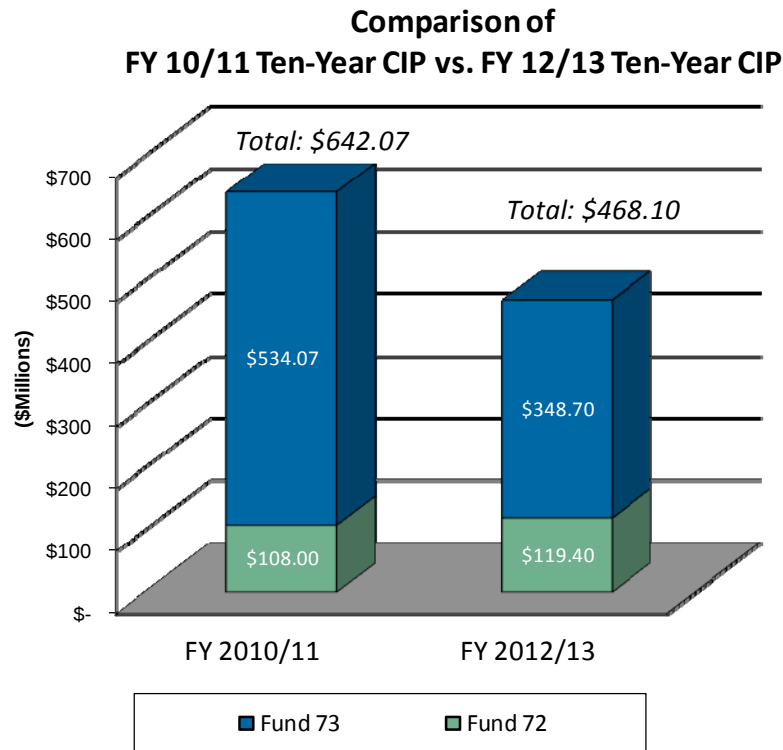
Water System
Ten-Year CIP (FY 12/13 – FY 21/22)
Program Breakdown
(\$ Millions)



Program	Ten-Year Total (\$Millions)	Percentage
Buildings & Grounds	12.83	2.7%
Groundwater Basin Management	2.98	0.6%
Program Management	3.73	0.8%
Regulatory Compliance Monitoring	1.45	0.3%
Transmission & Distribution	21.64	4.6%
Water Supply & Conveyance	281.72	60.2%
Water Treatment Facilities	105.23	22.5%
Wells	38.52	8.2%
Total	\$468.10	100%

OVERVIEW OF THE WATER SYSTEM CIP – CHANGES

The planned FY 2012/13 Ten-Year CIP appropriations total \$468 million, which is approximately \$174 million or about 27% less than the FY 2010/11 Ten-Year CIP total of \$642 million. This decrease is mainly due to the deferral of major Expansion projects outside of the ten-year CIP planning horizon due to the slowdown in growth. The other major changes are further detailed in the following pages.



OVERVIEW OF THE WATER SYSTEM - MAJOR CHANGES (Fund 72)

New Projects – Fund 72

On June 15, 2011, the Zone 7 Board adopted resolution 11-4092 (attached as Appendix B) accepting the Asset Management Program (AMP) Update. The principal goal of this update was to develop a rational and comprehensive plan that is consistent with utility practice, while building Retailer support for the program and its recommendations. Some of the major objectives were to identify near-term renewal needs and develop a 15-year renewal CIP; and to develop a long term renewal forecast and associated annual funding level necessary to implement future renewal and improvement needs.

The funding analysis included short and long-term project needs through FY 49/50. The initial funding recommendation (transfer target from Fund 52 to Fund 72) was \$12.5M (in 2011 dollars) annually starting in FY 14/15. However, after discussions with the Retailers and Zone 7 Finance Committee, a level of \$11.4M (in 2011 dollars) was accepted, with an eventual ramp-up to this amount (adjusted for inflation) by FY 16/17. These targets have been incorporated as the primary source of revenue for Fund 72.

The planned Fund 72 projects in this CIP total \$119M. A large number of these projects are new projects identified in the AMP or Water Supply Evaluation (WSE), and other efforts. A list of these new projects is presented below.

New Fund 72 Projects

- Arroyo del Valle Permit Extension
- Asset Management Program Management
- Chain of Lakes Facilities and Improvements - Water Supply
- CWS Turnout #4 Relocation/Replacement
- Distribution System Control Station Replacement
- DVWTP Chemical Tanks and Feed Pumps Replacement
- DVWTP Filter Media and Underdrain Replacement
- DVWTP Filter Valves Replacement (Phase 2)
- DVWTP HVAC Replacement
- DVWTP Rehabilitation Project
- DVWTP Superpulsator Rehabilitation
- DVWTP Valve Replacements for 3 MG Clearwell
- DWR Land Acquisition adjacent to PPWTP
- Hopyard Wellfield Pipeline – Connection with Hopyard Well No. 9
- Lakes H, I and Cope Facility Planning
- Maximize Yield from Existing Contract with BBID Study
- MGD R.O. Membrane Replacement
- Mocho 2 Well Improvements/Rehabilitation
- Mocho Well 2 - VFD Retrofit
- PPWTP Chemical Tanks and Pumps Replacement Phase I
- PPWTP Filter System Rehabilitation
- PPWTP Instrumentation Upgrades
- PPWTP Maintenance Yard and Building Improvements
- Reliability Intertie
- Water System Master Plan
- Wellfield Switchboard Replacement

OVERVIEW OF THE WATER SYSTEM - MAJOR CHANGES (Fund 73)

Over the past five years, new connections to our water system have slowed significantly from the rapid growth experienced in the early 2000's. Recent demand analysis projects service area build-out sometime between 2035 and 2040, which is ten years later than the previous estimate of 2025-2030. Most major Expansion projects have been deferred correspondingly by 8 to 10 years to mirror projected demands on our system. As an example, the 2011 WSE determined that based on current demand projections, Zone 7 can meet projected maximum day demands through 2022. This allows Zone 7 to defer construction of additional surface water treatment capacity until sometime after 2022. Other major Expansion project deferrals are listed in Table 2-1 below.

Table 2-1. Changes in Recommended In-Service Dates of Major Expansion Projects

Project	Previous CIP In-Service Date	Recommended CIP In-Service Date
Altamont Water Treatment Plant (24 MGD) Phase 1	2016	Water Treatment Plant Expansion – 2025
Altamont Pipeline – County Reach	2015	New Transmission System Pipeline – 2025
Chain of Lakes Wells 3, 4 and 5	2016	2020
Bernal Wells 1 and 2	2019	2030
Busch Valley Well 1	2020	2025
Second Demineralization Facility	2018	2028

A key planning effort that provided a framework for many of the Expansion projects included in this CIP is the 2011 WSE. For the WSE Zone 7 staff developed a risk-based water supply model to help assess near-term and long-term risks of water supply shortages within the water system. [Zone 7 receives 80% of its water supply from the State Water Project (SWP) and due to the legal and environmental constraints in the Sacramento-San Joaquin Delta (Delta), the future reliability of the SWP is uncertain.] Zone 7 completed the WSE in 2011 to help identify operational improvements and additional studies that will minimize near-term risks of water supply shortages and maximize long-term flexibility by evaluating potential new supply sources. The WSE recommends an action plan that includes a mix of operational and capital improvement projects. While the WSE evaluated a number of portfolios, Zone 7's current plan is centered on a Delta fix restoring the reliability of the SWP. Until the future of the Delta fix is determined, Zone 7 is continuing to investigate other potential water supply options. Findings of the report that have been incorporated as projects into this CIP are presented in Table 2-2 below.

Table 2-2 – WSE Goals and Corresponding Projects Recommended in this CIP

Goal	Project Name	Funding Source
Confirm water supply available from the existing contract with Byron Bethany Irrigation District (BBID)	Maximize Yield from Existing Contract with BBID (new)	Fund 72
Arroyo del Valle: Perfection of Existing Water Rights Permit	Arroyo de Valle Right Permit Extension (new)	Fund 72
Phase 2 Demineralization Facility	Deferred out of the CIP planning horizon due to funding availability. New in-service date is 2028	Fund 73
Increase Surface Water Treatment and Transmission System Capacity by 2022	New Water Treatment Plant Expansion New Transmission System Pipeline Construction of Dual Media Filters to Expand PPWTP (new) Westside Transmission System Improvements (new)	Fund 73
Work with Retailers to develop Additional Water Conservation and Recycled Water Programs	Various Water Conservation Programs	Funds 52 and 73
Understand Water Quality Implications Associated with Additional Recycled Water Use	Groundwater Management/Salt Nutrient Management Plan (new)	Funds 72 and 73
Continue Implementing the Well Master Plan and Chain of Lakes Projects	Busch-Valley Well 1 Chain of Lakes Well 5 Chain of Lakes Wells 3 & 4 El Charro Pipeline Phase 2 Chain of Lakes Facilities and Improvements Chain of Lakes Master Planning Lakes H, I and Cope Facility Planning	Fund 73 Fund 50,72,73,76
Continued Participation in Delta Fix Efforts	Bay-Delta Conservation Plan Delta Habitat Conservation and Conveyance Program Bay-Delta Outreach	Funds 52 and 73
Identify Feasible Options for a New Intertie with another Water Agency	Reliability Intertie (new)	Funds 72 and 73
Continued Participation in Planning Efforts for Regional Desalination	Bay Area Regional Desalination Project (new)	Fund 73
Identify Potential Normal/Wet Year Supply Options Available; Determine the Availability of Dry Year Water Supplies and Refine Wheeling Costs	Water Supply Replacement Project (new) Bay Area Regional Desalination Project (new)	Fund 73

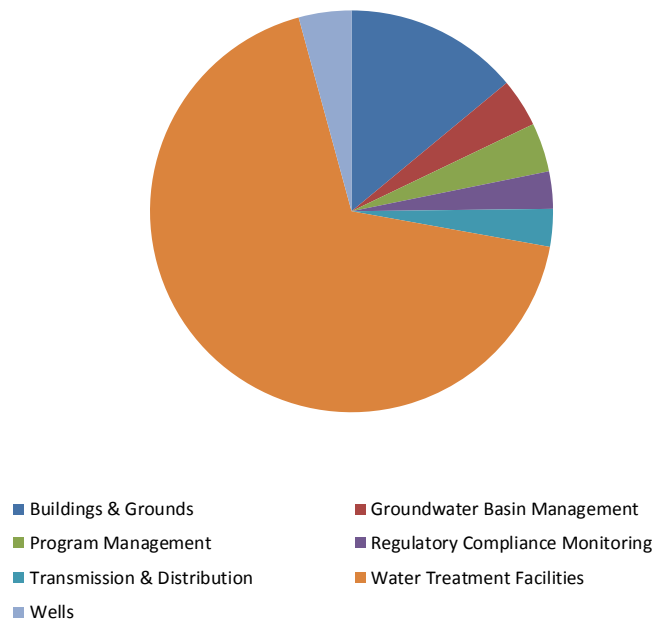
OVERVIEW OF WATER SYSTEM CIP BY STRATEGY

Renewal/ Replacement Strategy

This Strategy identifies the projects needed for the Renewal and Replacement of the existing capital assets of Zone 7's Water System.

The specific projects that comprise the Renewal/Replacement Strategy are listed below with respect to their associated programs. The first year appropriation requirement for this strategy is \$5.8 million, and the ten-year total is \$48 million. A breakdown by program for the ten-year total is shown on the following pages.

**Water System
Renewal/Replacement Strategy
Ten-Year Total**



Program	Ten-Year Total (\$ Millions)	Percentage
Buildings & Grounds	6.77	14%
Groundwater Basin Management	1.89	4%
Program Management	1.91	4%
Regulatory Compliance Monitoring	1.45	3%
Transmission & Distribution	1.47	3%
Water Treatment Facilities	32.91	68%
Wells	2.05	4%
Total	48.45	100%

Renewal/Replacement Strategy Breakdown											
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
Buildings & Grounds											
Administrative & Engineering Building - Sinking Fund (Fund 72)	\$0.386	\$0.395	\$0.406	\$0.416	\$0.427	\$0.437	\$0.448	\$0.000	\$0.000	\$0.000	\$2.915
Administrative & Engineering Building Lease (Water System)	\$0.518	\$0.528	\$0.539	\$0.550	\$0.561	\$0.572	\$0.584	\$0.000	\$0.000	\$0.000	\$3.851
Subtotal	\$0.904	\$0.923	\$0.945	\$0.966	\$0.988	\$1.009	\$1.032	\$0.000	\$0.000	\$0.000	\$6.766
Groundwater Basin Management											
MGDP RO Membrane Replacement	\$0.000	\$0.000	\$0.000	\$0.620	\$0.000	\$0.000	\$0.000	\$0.000	\$0.750	\$0.000	\$1.370
Monitoring Well Replacements & Abandonments	\$0.000	\$0.000	\$0.000	\$0.120	\$0.000	\$0.130	\$0.000	\$0.130	\$0.000	\$0.140	\$0.520
Subtotal	\$0.000	\$0.000	\$0.000	\$0.740	\$0.000	\$0.130	\$0.000	\$0.130	\$0.750	\$0.140	\$1.890
Program Management											
Asset Management Program Management	\$0.040	\$0.040	\$0.040	\$0.290	\$0.050	\$0.050	\$0.050	\$0.050	\$0.360	\$0.060	\$1.030
Capital Improvement Program Management	\$0.013	\$0.028	\$0.015	\$0.030	\$0.015	\$0.033	\$0.018	\$0.035	\$0.018	\$0.038	\$0.240
System-Wide Improvement, Renewal/Replacement Program Management	\$0.050	\$0.050	\$0.060	\$0.060	\$0.060	\$0.080	\$0.070	\$0.070	\$0.070	\$0.070	\$0.640
Subtotal	\$0.103	\$0.118	\$0.115	\$0.380	\$0.125	\$0.163	\$0.138	\$0.155	\$0.448	\$0.168	\$1.910
Regulatory Compliance Monitoring											
Laboratory Equipment Replacement	\$0.170	\$0.160	\$0.120	\$0.130	\$0.130	\$0.130	\$0.140	\$0.150	\$0.160	\$0.160	\$1.450
Subtotal	\$0.170	\$0.160	\$0.120	\$0.130	\$0.130	\$0.130	\$0.140	\$0.150	\$0.160	\$0.160	\$1.450
Transmission & Distribution											
CWS Turnout #4 Relocation/Replacement	\$0.000	\$0.460	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.460
Distribution System Control Station Replacement	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.010	\$0.000	\$1.010
Subtotal	\$0.000	\$0.460	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.010	\$0.000	\$1.470
Water Treatment Facilities											
Dougherty Reservoir Access Road Rehabilitation	\$0.000			\$0.050							\$0.050
Dougherty Reservoir Recoating	\$0.000		\$0.000	\$1.860	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.860
DVWTP Ammonia System Replacement	\$1.020	\$0.780	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.800
DVWTP Chemical Tanks and Feed Pumps Replacement	\$0.000	\$0.000	\$0.000	\$0.180	\$0.910	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.090
DVWTP Filter Media and Underdrain Replacement	\$0.000	\$0.000	\$0.000	\$0.000	\$0.250	\$1.600	\$0.000	\$0.000	\$0.000	\$0.000	\$1.850
DVWTP Filter Valves Replacement	\$0.000	\$0.000	\$0.000	\$0.410	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.410
DVWTP HVAC Replacement	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.110	\$0.640	\$0.750
DVWTP Instrumentation Upgrades	\$0.000	\$0.000	\$0.030	\$0.350	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.380

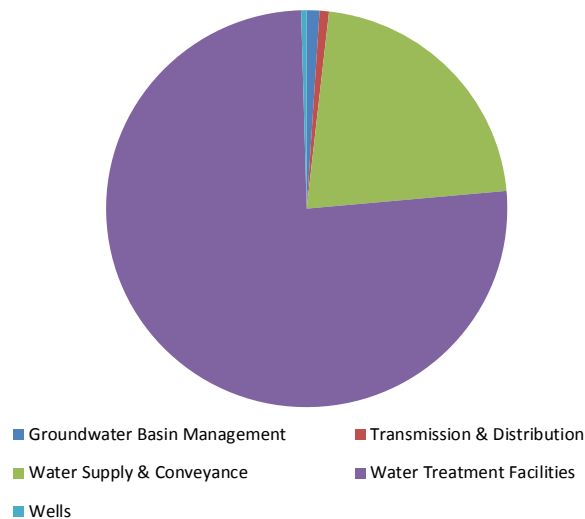
Renewal/Replacement Strategy Breakdown											
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
DVWTP Interior Coating Improvements to the 4.5 MG Steel Clearwell	\$1.630	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.630
DVWTP Rehabilitation Project	\$0.000	\$0.000	\$0.000	\$0.000	\$0.360	\$2.310	\$0.000	\$0.000	\$0.000	\$0.000	\$2.670
DVWTP Roof Replacement and Rehabilitation for 3.0 MG Clearwell	\$0.000	\$0.000	\$0.080	\$0.500	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.580
DVWTP Superpulsator Rehabilitation	\$0.000	\$2.560	\$2.400	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$4.960
DVWTP Valve Replacements for 3 MG Clearwell	\$0.170	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.170
Minor Renewal/Replacement Projects	\$0.260	\$0.270	\$0.280	\$0.290	\$0.300	\$0.320	\$0.330	\$0.340	\$0.360	\$0.370	\$3.120
PPWTP Ammonia Facility Replacement	\$0.900	\$0.680	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.580
PPWTP Filter System Rehabilitation	\$0.000	\$0.000	\$0.450	\$0.000	\$0.210	\$1.670	\$0.000	\$0.000	\$0.000	\$0.000	\$2.330
PPWTP Instrumentation Upgrades	\$0.000	\$0.000	\$0.000	\$0.000	\$0.120	\$0.440	\$0.000	\$0.000	\$0.000	\$0.000	\$0.560
PPWTP Ultrafiltration Membrane Replacement	\$0.390	\$0.410	\$0.440	\$0.450	\$0.480	\$0.500					\$2.670
SCADA Enhancements	\$0.220	\$0.230	\$1.070	\$0.250	\$0.250	\$0.270	\$1.250	\$0.290	\$0.300	\$0.320	\$4.450
Subtotal	\$4.590	\$4.930	\$4.750	\$4.340	\$2.880	\$7.110	\$1.580	\$0.630	\$0.770	\$1.330	\$32.910
Wells											
Mocho 2 Well Improvements/Rehabilitation	\$0.000	\$0.000	\$0.200	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.200
Well Pump, Motor and Casing Inspections	\$0.000	\$0.000	\$0.000	\$0.110	\$0.000	\$0.120	\$0.000	\$0.130	\$0.000	\$0.140	\$0.500
Wellfield Switchboard Replacement Project	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.350	\$0.000	\$0.000	\$0.000	\$0.000	\$1.350
Subtotal	\$0.000	\$0.000	\$0.200	\$0.110	\$0.000	\$1.470	\$0.000	\$0.130	\$0.000	\$0.140	\$2.050
Total	\$5.767	\$6.591	\$6.130	\$6.666	\$4.123	\$10.011	\$2.889	\$1.195	\$3.138	\$1.938	\$48.446

System-Wide Improvements Strategy

This Strategy addresses enhancements to existing facilities that will improve water quality, safety, reliability, efficiency, operational flexibility, and/or decrease costs.

The specific projects that comprise the System-Wide Improvements Strategy are listed below with respect to their associated programs. The first year appropriation requirement is \$8 million, and the ten-year total for this strategy is \$71 million. A breakdown of the related programs for the ten-year total is shown on the following pages.

Water System System-Wide Improvements Strategy Ten-Year Total



Program	Ten-Year Total (\$ Millions)	Percentage
Groundwater Basin Management	0.76	1.1%
Transmission & Distribution	0.56	1%
Water Supply & Conveyance	12.98	18%
Water Treatment Facilities	56.33	79%
Wells	0.33	0%
Total	70.96	100%

System-Wide Improvements Strategy Breakdown											
Programs	FY 12/13	FY 13/14	FY 14/15	FY 15/16	Appropriations (\$Millions)		FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
					FY 16/17	FY 17/18					
Groundwater Basin Management											
Groundwater Management Plan/SNMP Update	\$0.539	\$0.224	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.763
Subtotal	\$0.539	\$0.224	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.763
Transmission & Distribution											
Corrosion Master Plan Update	\$0.000	\$0.220	\$0.000	\$0.000	\$0.000	\$0.000	\$0.280	\$0.000	\$0.000	\$0.000	\$0.500
System-Wide Installation of Line Valves	\$0.000	\$0.000	\$0.000	\$0.060	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.060
Subtotal	\$0.000	\$0.220	\$0.000	\$0.060	\$0.000	\$0.000	\$0.280	\$0.000	\$0.000	\$0.000	\$0.560
Water Supply & Conveyance											
Arroyo Del Valle Water Right Permit Extension	\$0.450										\$0.450
Chain of Lakes Facilities and Improvements - Water Supply	\$0.042	\$0.639	\$0.423	\$0.225	\$1.824	\$0.036	\$0.396	\$0.000	\$0.000	\$0.000	\$3.585
Hopyard Wellfield Pipeline – Connection with Hopyard Well No. 9	\$0.000	\$0.000	\$0.000	\$0.230	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.230
Lakes H, I and Cope Facility Planning	\$0.155	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.155
Maximize Yield from Existing Contract with BBID Study	\$0.100										\$0.100
PPWTP Clearwell Improvements	\$0.000	\$0.000	\$0.000	\$0.100	\$0.540	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.640
Reliability Intertie	\$0.000	\$0.000	\$0.000	\$0.000	\$0.219	\$0.456	\$0.354	\$1.848	\$4.611	\$0.000	\$7.488
Water System Master Plan	\$0.040	\$0.140	\$0.148	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.328
Subtotal	\$0.787	\$0.779	\$0.571	\$0.555	\$2.583	\$0.492	\$0.750	\$1.848	\$4.611	\$0.000	\$12.976
Water Treatment Facilities											
DVWTP Chemical Systems Improvements	\$3.430	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$3.430
DVWTP Sludge Handling Improvements	\$2.390	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$2.390
DWR Land Acquisition adjacent to PPWTP	\$0.364										\$0.364
PPWTP Chemical Improvements/Replacement Project	\$0.000	\$0.000	\$0.220	\$0.580	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.800
PPWTP Maintenance Yard and Building Improvements	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.091	\$0.686	\$0.672		\$1.449
PPWTP Sludge Handling Improvements	\$0.000	\$0.000	\$0.000	\$0.820	\$3.650	\$0.380	\$0.000	\$0.000	\$0.000	\$0.000	\$4.850
Safety Improvements at Water Treatment Plants	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.070	\$0.000	\$0.000	\$0.000	\$0.070
Water Quality - Ozonation at PPWTP & DVWTP	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$3.260	\$13.700	\$25.780	\$42.740
Water Quality Management Program	\$0.028	\$0.014	\$0.028	\$0.014	\$0.035	\$0.014	\$0.035	\$0.014	\$0.042	\$0.014	\$0.238
Subtotal	\$6.212	\$0.014	\$0.248	\$1.414	\$3.685	\$0.394	\$0.196	\$3.960	\$14.414	\$25.794	\$56.331
Wells											
Mocho Well 2 - VFD Retrofit	\$0.330	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.330
Subtotal	\$0.330	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.330
Total	\$7.868	\$1.237	\$0.819	\$2.029	\$6.268	\$0.886	\$1.226	\$5.808	\$19.025	\$25.794	\$70.960

FUND 72 - FUNDING ANALYSIS

The Water System CIP is funded by Fund 72 – Renewal/Replacement and System-Wide Improvements and Fund 73 – Expansion. The following sections discuss near-term funding over the next ten years.

In the 2004 Asset Management Program (AMP) Study, it was determined that the then-current \$4 million annual water rate contribution would no longer be adequate to fund the program. That study included an evaluation of Zone 7's inventory of capital assets, asset service life as determined through condition assessments, economic life of the asset, asset risk, criticality, and vulnerability, true replacement costs under current conditions, and the annual allowance necessary to adequately fund Renewal/Replacement projects over the long term. In the 2004 study, Zone 7 obtained a current asset valuation of its existing facilities and recommended an annual funding allowance of \$10 million to adequately fund the program. In order to meet this \$10 million target, water rates would need to be raised. To lessen the impact of water rate increases, a gradual ramp-up to \$10 million by FY 14/15 was proposed. Over the past three fiscal years, the transfer has been around \$5 million.

Beginning in 2010, staff revaluated the AMP and on June 15, 2011, the Zone 7 Board adopted resolution 11-4092 accepting the Asset Management Program (AMP) Update (attached as Appendix B). The major objectives were to 1) identify near-term renewal needs and a 15-year renewal CIP; 2) develop a long-term renewal forecast and associated annual funding level necessary to implement future renewal and improvement needs.

The funding analysis included short and long term project needs through FY 49/50. The initial funding recommendation was \$12.5M (in 2011 dollars) annually. However, after discussions with the Retailers and Finance Committee, a level of \$11.4M (in 2011 dollars) was accepted, with an eventual ramp-up to this amount (adjusted for inflation) by FY 16/17. This allowance does not include funding for the Third Demineralization Facility or water conservation programs. The Third Demineralization Facility will be evaluated in the upcoming Groundwater Management/Salt Nutrient Management Plan update. Funding for water conservation programs, originally in Fund 72, will be shifted to the Water Enterprise Fund (Fund 52), while the funding provided by Fund 73 will remain.

Incorporating the Board-approved AMP transfer targets, Table 2-3 and Figure 2-1 below show the projected funding outlook for this Fund through FY 21/22. A minimum fund balance of 75% of the following years' Water Rate Contribution is maintained. This minimum is set so sufficient funding is available at the beginning of the following fiscal year to fund project needs. At the end of FY 21/22, the program end balance is approximately \$8 million. The R/R and SWI programs extend through FY 49/50. Therefore, the program ending balance shown will be used to fund future infrastructure replacement needs as identified in the AMP and shown in Figure 2-2 below.

TABLE 2-3
Fund 72 (Water Rates)
PROJECTED FUNDING OUTLOOK
(\$ Millions)

	Fiscal year (FY)	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
1													
2	Beginning Available Fund Balance	17.74	16.54	14.61	7.22	7.38	9.41	12.75	15.87	18.77	29.42	37.80	31.58
3	Revenue												
4	Water Rate Contribution	5.41	5.04	6.60	8.50	9.50	10.50	13.13	13.91	14.35	14.53	14.83	15.75
5	Facility Use Fees	0.41	0.29	0.03	0.03	0.00	1.05	0.62	0.00	0.42	0.42	0.42	0.42
6	Interest Income	0.11	0.08	0.29	0.22	0.22	0.38	0.51	0.63	0.75	1.18	1.51	1.26
7	Other Income	0.10					0.86						
8	Total Revenue	6.03	5.41	6.92	8.74	9.72	12.79	14.26	14.54	15.52	16.13	16.76	17.43
9	Expenditures												
10	R&R Expenditures	2.57	2.98	5.38	6.20	5.72	6.25	3.70	9.57	2.44	1.20	3.14	1.94
11	SWI Expenditures	4.30	3.23	7.79	1.24	0.82	2.03	6.27	0.89	1.23	5.81	19.10	25.79
12	Contingency		0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
13	Total Expenditures	6.8646	6.97	13.92	8.18	7.29	9.03	10.71	11.21	4.42	7.75	22.98	28.48
14	Fund Balance with Reserves	16.91	14.98	7.60	7.78	9.81	13.16	16.30	19.21	29.87	37.80	31.58	20.53
15	Reserved Funds												
	Annual Building Sinking Fund												
16	Contribution	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.00	0.00	0.00
	75% of Following Years'												
17	Contribution	3.78	4.95	6.38	7.13	7.88	9.85	10.43	10.76	10.90	11.12	11.81	12.56
	Net Estimated Available Fund												
18	Balance	12.76	9.66	0.84	0.26	1.53	2.90	5.44	8.01	18.53	26.68	19.76	7.96

Key Assumptions

- Line 2 Beginning fund balance excludes prior year encumbrance carryovers and sinking fund balance of \$2.3M.
- Line 4 Projected annual RR/SWI allowance transfer from Fund 52, Water Enterprise to Fund 72.
- Line 5 Facility use fees are charged to the Dougherty Valley Service Area to compensate Zone 7 for the use of Zone 7's existing facilities to provide water to this area.
- Line 6 Assumes 1% interest in FY 11/12 gradually increasing to 4% by FY 15/16.
- Line 7 Other income includes reimbursement from DSRSD for its share (50%) of the Dougherty Reservoir Recoating and Access Road Rehabilitation Project.
- Line 9 Expenditures are shown in actual dollars (current dollars adjusted by a 4% annual inflation factor).
- Line 17 A minimum fund balance of 75% of the following years' Water Rate Contribution is reserved so sufficient funding is available at the beginning of the following fiscal year.

Figure 2-1
Fund 72 - Funding Outlook through FY 2021/22
Projected Available Fund Balance

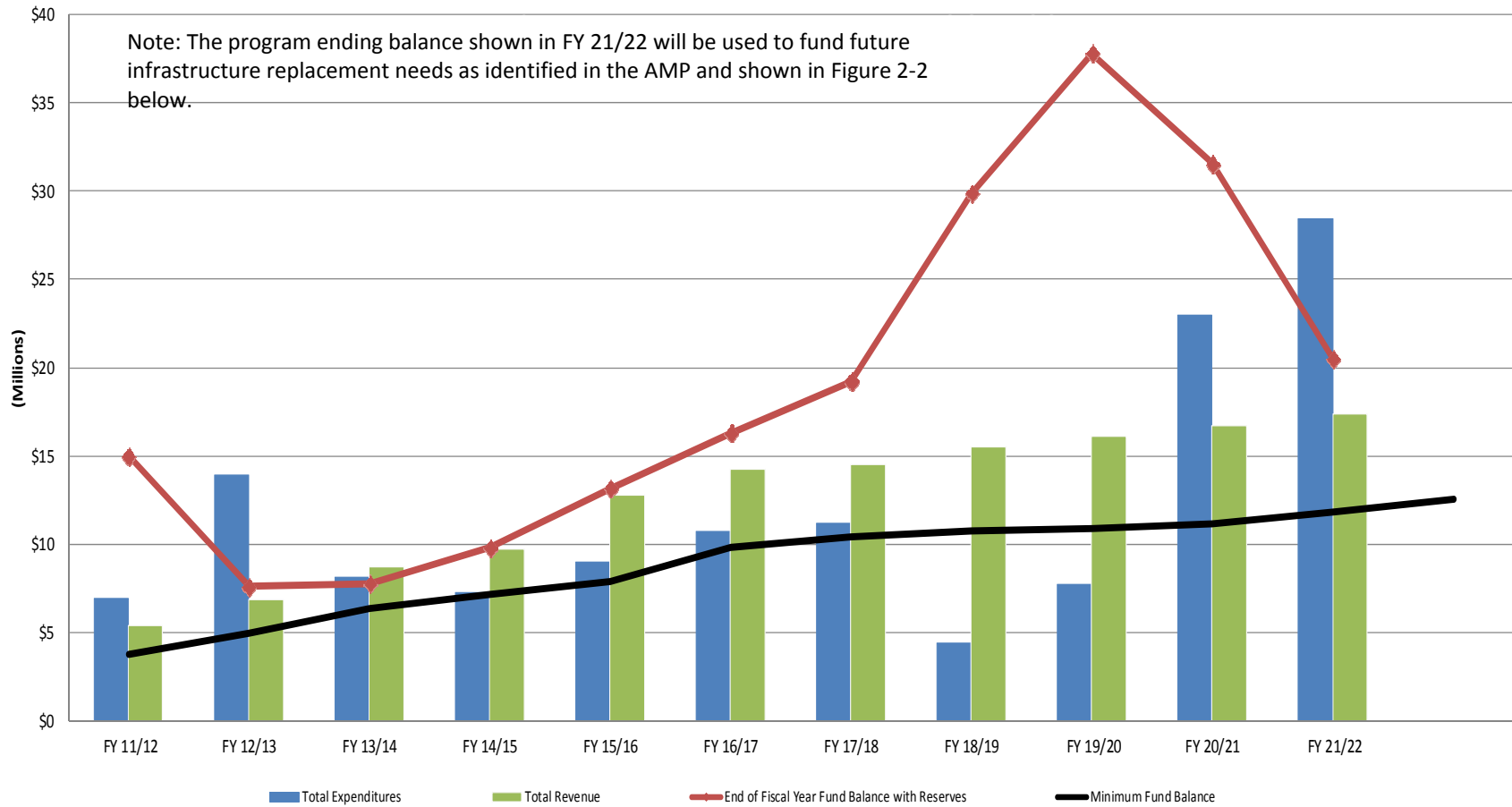
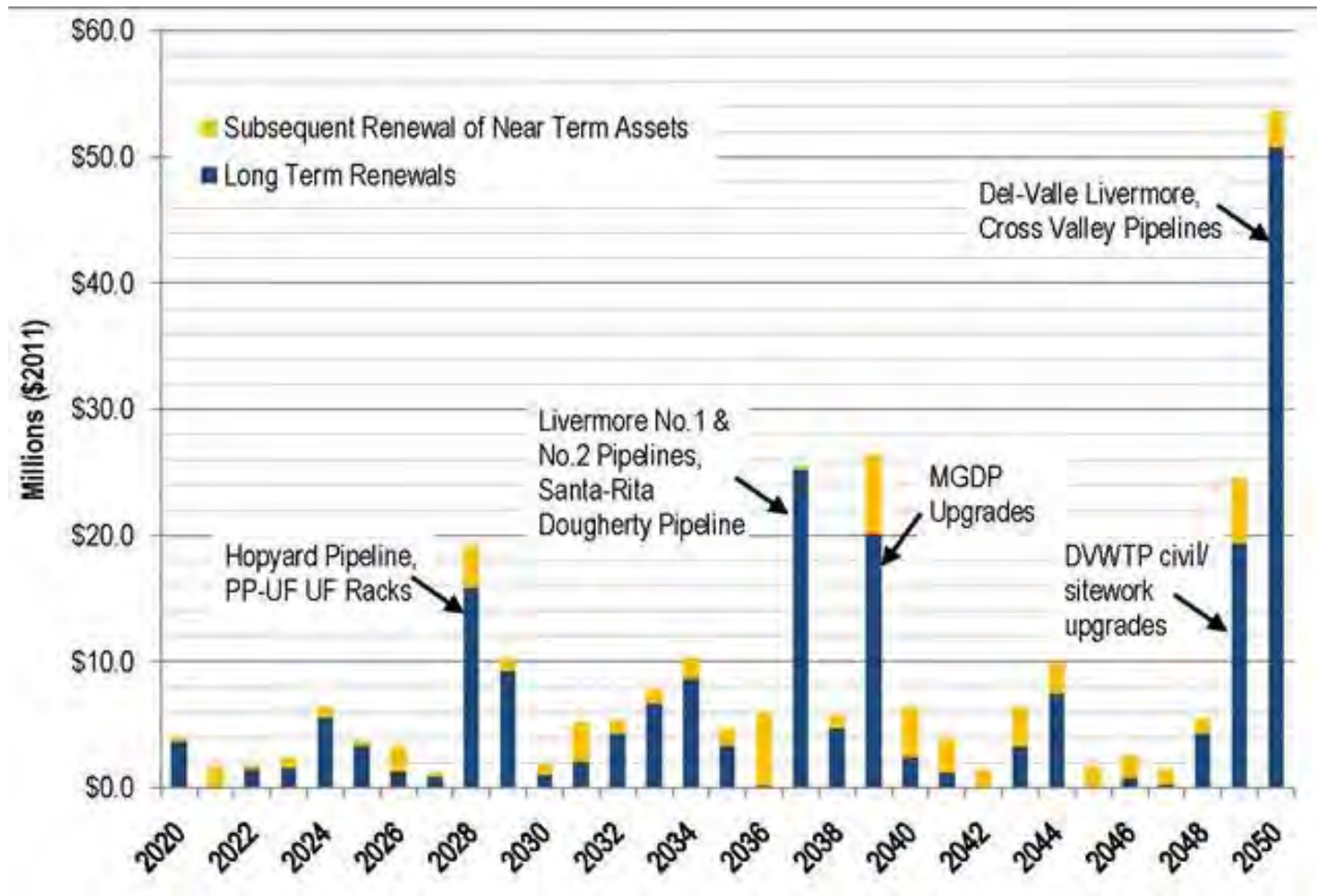


Figure 2-2
2011 AMP Long-term Renewal Forecast through 2050

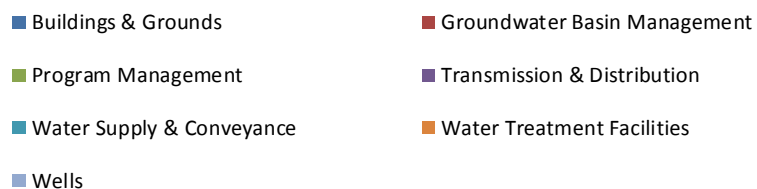
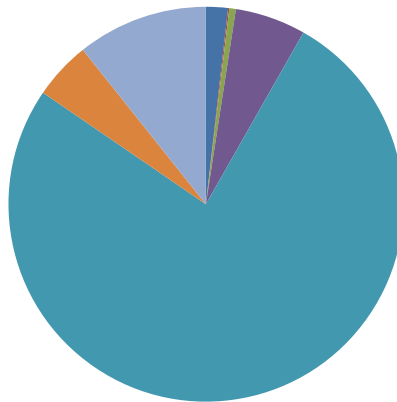


Source: Zone 7 Asset Management Plan 2011 Update

Fund 73 – Expansion Strategy

The specific projects that comprise the Expansion Strategy are described in the following pages with respect to their associated programs. The first year appropriation requirement is \$19 million while the ten-year total for this strategy is \$349 million, which is 74% of the \$468 million total estimated expenditures planned in this ten-year Water System CIP.

Water System Expansion Strategy Ten-Year Total by Program



Program	Ten-Year Total (\$ Millions)	Percentage
Buildings & Grounds	6.06	2%
Groundwater Basin Management	0.33	0%
Program Management	1.82	0.5%
Transmission & Distribution	19.54	6%
Water Supply & Conveyance	268.82	77%
Water Treatment Facilities	15.99	5%
Wells	36.14	10%
Total	348.70	100%

Expansion Strategy Breakdown											
Programs	Appropriations (\$Millions)										
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
Buildings & Grounds											
Administrative & Engineering Building - Sinking Fund (Fund 73)	\$0.035	\$0.036	\$0.564	\$0.578	\$0.593	\$0.608	\$0.623	\$0.000	\$0.000	\$0.000	\$3.037
Administrative & Engineering Building Lease (Water System)	\$0.407	\$0.415	\$0.423	\$0.432	\$0.441	\$0.449	\$0.458	\$0.000	\$0.000	\$0.000	\$3.026
Subtotal	\$0.442	\$0.451	\$0.987	\$1.010	\$1.034	\$1.057	\$1.081	\$0.000	\$0.000	\$0.000	\$6.063
Groundwater Basin Management											
Groundwater Management Plan/SNMP Update	\$0.231	\$0.096	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.327
Subtotal	\$0.231	\$0.096	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.327
Program Management											
Capital Improvement Program Management	\$0.038	\$0.083	\$0.045	\$0.090	\$0.045	\$0.098	\$0.053	\$0.105	\$0.053	\$0.113	\$0.720
Expansion Program Management (ISA interest costs)	\$0.653	\$0.450	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.103
Subtotal	\$0.691	\$0.533	\$0.045	\$0.090	\$0.045	\$0.098	\$0.053	\$0.105	\$0.053	\$0.113	\$1.823
Transmission & Distribution											
New Water Treatment Plant Transmission Pipeline	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.370	\$3.920	\$14.250	\$19.540
Subtotal	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.370	\$3.920	\$14.250	\$19.540
Water Supply & Conveyance											
Arroyo Mocho Diversion Facility Coordination & Implementation	\$0.110	\$0.120	\$0.240	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.470
Arroyo Mocho Low Flow Crossings	\$0.070	\$0.630	\$0.110	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.810
Bay Area Regional Desalination Project - Planning	\$0.210	\$0.220	\$0.220	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.650
Bay-Delta Conservation Planning (Zone 7)	\$0.060	\$0.060	\$0.060	\$0.060	\$0.070	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.310
Cawelo Groundwater Banking Program	\$1.296	\$1.293	\$1.294	\$1.295	\$1.294	\$1.293	\$1.297	\$1.299	\$1.299	\$1.298	\$12.958
Chain of Lakes Facilities and Improvements - Water Supply	\$0.098	\$1.491	\$0.987	\$0.525	\$4.256	\$0.084	\$0.924	\$0.000	\$0.000	\$0.000	\$8.365
Chain of Lakes Master Planning	\$0.050	\$0.050	\$0.110	\$1.400	\$0.910	\$0.250	\$0.130	\$0.070	\$0.500	\$0.070	\$3.540
CUWA Membership	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.030	\$0.030	\$0.220
Delta Habitat Conservation and Conveyance Program	\$0.010	\$0.010	\$0.010	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.030	\$0.030	\$0.190
Delta Outreach Program	\$0.030	\$0.030	\$0.030	\$0.040	\$0.040	\$0.040	\$0.000	\$0.000	\$0.000	\$0.000	\$0.210
Fixed Cost of Water Entitlement	\$0.652	\$0.647	\$0.648	\$0.620	\$0.570	\$0.521	\$0.475	\$0.424	\$0.369	\$0.317	\$5.243
Fourth Contractor's Share of the SBA - Sinking Fund	\$0.028	\$0.028	\$0.527	\$0.548	\$0.570	\$0.593	\$0.617	\$0.641	\$0.667	\$0.694	\$4.913
Fourth Contractor's Share of the SBA (capital costs)	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$21.000
High-Efficiency Toilet Rebate Program	\$0.030	\$0.030	\$0.030	\$0.030	\$0.030	\$0.030	\$0.000	\$0.000	\$0.000	\$0.000	\$0.180
High-Efficiency Washing Machine Rebate Program	\$0.090	\$0.100	\$0.100	\$0.090	\$0.070	\$0.080	\$0.060	\$0.060	\$0.040	\$0.040	\$0.730
Lakes H, I and Cope Facility Planning	\$0.078	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.078
Reliability Intertie	\$0.000	\$0.000	\$0.000	\$0.000	\$0.511	\$1.064	\$0.826	\$4.312	\$10.759	\$0.000	\$17.472
Semitropic Stored Water Recovery Unit	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.480
South Bay Aqueduct Enlargement Project - Sinking Fund	\$0.166	\$0.170	\$1.074	\$1.117	\$1.161	\$1.208	\$1.256	\$1.306	\$1.359	\$1.413	\$10.230

Expansion Strategy Breakdown (Continued)											
Programs	Appropriations (\$Millions)										
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
South Bay Aqueduct Enlargement Project	\$14.890	\$15.125	\$15.123	\$15.124	\$15.123	\$15.118	\$15.117	\$15.123	\$15.123	\$15.124	\$150.990
SWP Peaking Payment (Lost Hills & Belridge Water Districts)	\$0.038	\$0.036	\$0.070	\$0.062	\$0.059	\$0.051	\$0.048	\$0.040	\$0.036	\$0.029	\$0.469
Water Conservation Best Management Practices	\$0.020	\$0.020	\$0.030	\$0.030	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.220
Water Supply Replacement	\$0.000	\$0.000	\$0.000	\$0.000	\$1.580	\$1.640	\$1.710	\$1.780	\$7.120	\$7.400	\$21.230
Water System Master Plan	\$0.060	\$0.210	\$0.222	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.492
Westside Transmission System Improvements	\$0.000	\$0.000	\$0.000	\$0.530	\$0.640	\$6.200					\$7.370
Subtotal	\$20.154	\$22.438	\$23.053	\$23.659	\$29.092	\$30.380	\$24.668	\$27.263	\$39.500	\$28.613	\$268.819
Water Treatment Facilities											
Construction of Three Dual Media Filters to Expand PPWTP	\$0.000	\$0.000	\$0.970	\$4.210	\$4.010	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$9.190
DWR Land Acquisition adjacent to PPWTP	\$0.156										\$0.156
PPWTP Maintenance Yard and Building Improvements	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.039	\$0.294	\$0.288		\$0.621
Water Quality Management Program	\$0.012	\$0.006	\$0.012	\$0.006	\$0.015	\$0.006	\$0.015	\$0.006	\$0.018	\$0.006	\$0.102
Water Treatment Plant Expansion	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$5.920	\$5.920
Subtotal	\$0.168	\$0.006	\$0.982	\$4.216	\$4.025	\$0.006	\$0.054	\$0.300	\$0.306	\$5.926	\$15.989
Wells											
Busch-Valley Well 1	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.430	\$1.230	\$2.440	\$4.100
Chain of Lakes Well 5	\$0.000	\$0.000	\$0.000	\$0.000	\$1.880	\$5.700	\$0.660	\$0.000	\$0.000	\$0.000	\$8.240
Chain of Lakes Wells 3 & 4	\$0.000	\$0.000	\$0.000	\$1.220	\$2.950	\$11.070	\$0.980	\$0.000	\$0.000	\$0.000	\$16.220
El Charro Pipeline Phase 2	\$0.000	\$0.000	\$0.000	\$0.560	\$6.410	\$0.610	\$0.000	\$0.000	\$0.000	\$0.000	\$7.580
Subtotal	\$0.000	\$0.000	\$0.000	\$1.780	\$11.240	\$17.380	\$1.640	\$0.430	\$1.230	\$2.440	\$36.140
Total	\$21.685	\$23.523	\$25.067	\$30.755	\$45.435	\$48.921	\$27.496	\$29.468	\$45.009	\$51.342	\$348.701

FUND 73 - FUNDING ANALYSIS

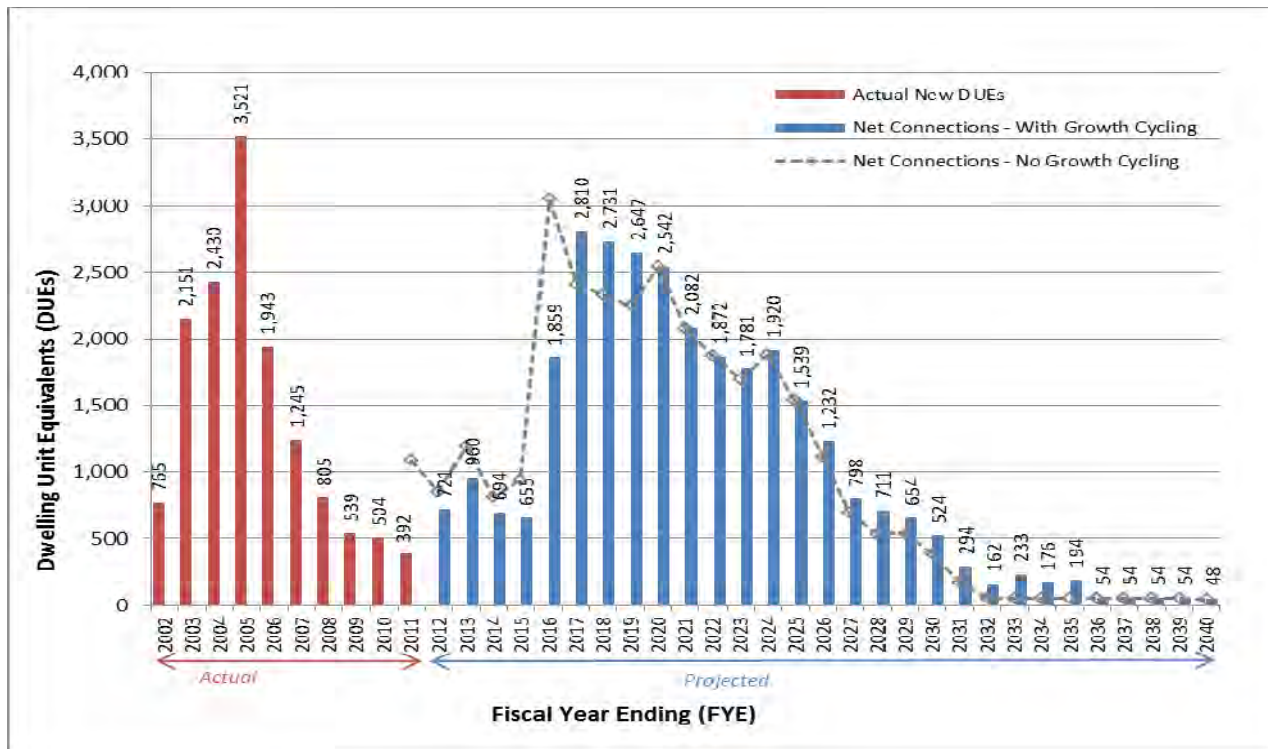
Fund 73 funds projects, or portions thereof, that are needed because of additional demands on the Water System from new development. This includes all water purchases, conveyance facilities (e.g., SBA Improvement & Enlargement Project), treatment and transmission facilities.

On January 15, 2008, Zone 7 completed the necessary documents required to close on a \$60 million Installment Sale Agreement (ISA), a form of lease financing which functions similarly to a line of credit. This funding was acquired to bridge a short-term funding gap between anticipated expenditures and revenue. In February 2010, Zone 7 drew \$30.5M from the \$60M ISA with Wells Fargo to fund the Altamont Pipeline, Livermore Reach. Interest-only payments are made quarterly while the principal amount will be due at the end of December 2013.

Concurrent with the development of this CIP, staff also completed an update to the current Municipal and Industrial (M&I) Treated Water Connection Fee Program (Engineering Study). The M&I Connection Fee Program was established to ensure that Zone 7 is able to fund the necessary projects within Zone 7's Water System Expansion Program, which will serve the demands of new growth over the next 30 years (2011-2040). More details about on the 2011 Water System Expansion Program and Connection Fees can be found in the M&I 2011 Connection Fee Program Update (Zone 7 Water Agency, 2011).

Based on connection and water demand projections provided by the Retailers, staff developed a valley-wide projection of connections through build-out. Actual connections from FY 01/02 through FY 10/11, and projected connections from FY 11/12 through build-out (projected to be sometime between 2035 and 2040) are shown in Figure 2-3.

Figure 2-3 – Actual and Projected Net Connections with and without Growth Cycling*



*Net connections are calculated from the gross connections adjusted for prepaid connections and credits. Net connections with growth cycling was used for the revenue projections. This growth cycling concept assumes only 70% of the first five years' projections are assumed to occur at that time and the remaining 30% are assumed to occur over FY 25/26 through FY 34/35.

This CIP plans for a total expenditure of \$348 million in Expansion projects starting in FY 12/13 through FY 21/22. Of this amount, non-discretionary obligations total \$194 million. These projects are payments to other agencies, such as the Department of Water Resources, that Zone 7 is obligated to pay. These include:

- South Bay Aqueduct (SBA) Enlargement
- Fourth Contactor's Share of the SBA
- Fixed Cost of Water Entitlement
- State Water Project Peaking Payment (Lost Hills and Belridge Water Districts)
- Cawelo Groundwater Banking Program
- Semitropic Stored Water Recovery Unit
- Bay-Delta Conservation Plan & Delta Habitat Conservation and Conveyance Program
- Administrative and Engineering Building Lease
- Interest on Credit Line with Wells Fargo

In the scheduling and prioritization of Expansion projects, the first priority was to ensure that there were adequate funds to pay non-discretionary obligations. For planning purposes, a minimum fund balance was set at 50% of the following year's non-discretionary obligations (~\$9.8 million annually). In accordance with Zone 7's current pay-as-you-go funding policy, the remaining projects were scheduled as projected demands on our system dictate and as funding is available. Table 2-4 below shows projected available funding in Fund 73 through FY 21/22. Based on inflationary adjustments to the existing fees, sufficient funding is projected to fund Expansion projects as planned in the CIP. The fund balance shown in FY 21/22 is largely in anticipation of a water treatment plant expansion and pipeline project, scheduled to be online in 2025 at a total cost of \$213 million. Figure 2-4 shows the projected available fund balance through FY 2021/22.

TABLE 2-4
Fund 73 – Connection Fees
PROJECTED FUNDING OUTLOOK
(\$ Millions)

	Fiscal year (FY)	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	19/20	20/21	21/22
1	Beginning Available Fund Balance	59.77	55.61	46.15	49.38	20.65	22.04	45.86	80.55	112.33	169.30	225.27	255.06
2	Revenue												
3	Connection Fees	9.29	8.67	22.05	17.70	21.02	49.37	74.86	75.51	75.76	75.31	63.79	59.34
5	Other	2.57	2.41	3.00	7.72	3.64	3.91	4.86	6.25	7.52	9.80	12.04	13.23
6	Total Revenue	11.86	11.08	25.05	25.42	24.67	53.27	79.72	81.75	83.28	85.10	75.82	72.56
7	Expenditures												
8	Discretionary Project Expenditures	2.04	3.87	1.69	3.94	3.58	9.80	25.44	30.41	7.26	10.13	27.08	34.00
9	ISA Payoff				30.50								
10	Non-Discretionary Expenditures	13.99	16.67	20.12	19.72	19.70	19.65	19.60	19.56	19.05	19.01	18.95	18.87
11	Total Expenditures	16.03	20.54	21.81	54.15	23.28	29.45	45.04	49.97	26.31	29.13	46.03	52.87
12	Annual Sinking Fund Contributions	0.096	0.130	0.166	0.170	1.074	1.117	1.161	1.208	1.256	1.306	1.359	1.413
13	Total Sinking Fund Contributions Plus Reserves	8.81	8.99	9.22	9.46	11.62	13.86	16.19	18.60	21.09	18.58	20.61	22.71
14	Net Estimated Available Fund Balance	46.80	37.16	40.16	11.20	10.42	32.00	64.36	93.73	148.20	206.69	234.45	252.04

Footnotes/Assumptions

Line 3 - Revenue assumes annual inflationary adjustments to connection fees to keep pace with inflation.

Line 4 - Other revenue includes refunds from DWR and interest. Interest earnings assume 1% interest earned on beginning cash and sinking fund balances in FY11/12, gradually increasing to 4% by FY 15/16.

Line 8 - Discretionary expenditures include: project expenditures (adjusted by 4% annual inflation); administrative fee (1% of connection fee revenue) to Retailers;
\$500K program contingency for FY 11/12, increasing to 5% of total annual expenditures for FY 12/13 -16/17, 10% FY 17/18 -29/30 and \$5M thereafter.

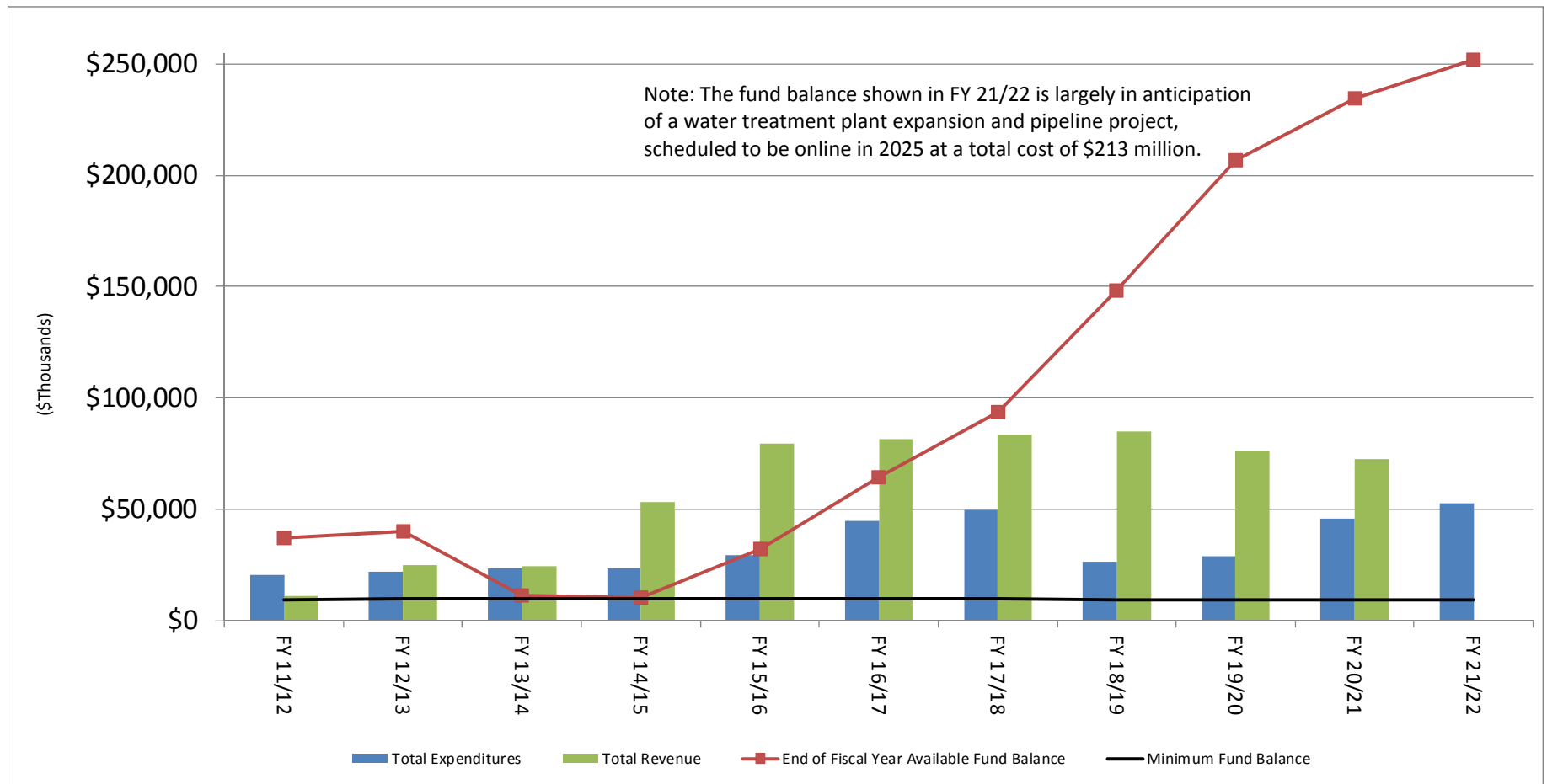
Line 9 - Reflects pay-off of ISA in December 2013.

Line 13 - Sinking Fund Contributions/Reserves includes: balance of Future Contractor's Share of the SBA, SBA Enlargement and Administration & Engineering Building sinking funds plus the annual sinking fund contributions.

Line 14 - Fund Balance Target is 50% of the following year's non-discretionary expenditures or ~\$9.8M.

Note: For normal planning purposes a growth cycling concept is used. It assumes 70% of projected connections FY 10-11 - FY 14/15, 100% of projected through FY 29/30 and the remaining 30% unrealized in the first five years will materialize in FY 25/26 - FY 34/35.

FIGURE 2-4
Fund 73 – Connection Fees
Projected Funding Outlook until FY 2021/22



CAPITAL PROJECTS APPROPRIATION SUMMARY BY PROGRAM

This section contains a ten-year estimated appropriation summary for the capital projects for the Water System included in the FY 2012/13 through FY 2021/22 CIP, a project summary sheet for each project and an alphabetical project listing.

Capital Improvement Program
Project Summary by Program
(Appropriations shown in \$Millions)

Programs	Appropriations (\$Millions)										Total
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	
Administrative & Engineering Building - Sinking Fund (Fund 72)	\$0.386	\$0.395	\$0.406	\$0.416	\$0.427	\$0.437	\$0.448	\$0.000	\$0.000	\$0.000	\$2.915
Administrative & Engineering Building - Sinking Fund (Fund 73)	\$0.035	\$0.036	\$0.564	\$0.578	\$0.593	\$0.608	\$0.623	\$0.000	\$0.000	\$0.000	\$3.037
Administrative & Engineering Building Lease (Water System)	\$0.407	\$0.415	\$0.423	\$0.432	\$0.441	\$0.449	\$0.458	\$0.000	\$0.000	\$0.000	\$3.026
Administrative & Engineering Building Lease (Water System)	\$0.518	\$0.528	\$0.539	\$0.550	\$0.561	\$0.572	\$0.584	\$0.000	\$0.000	\$0.000	\$3.851
Subtotal	\$1.346	\$1.374	\$1.932	\$1.976	\$2.022	\$2.066	\$2.113	\$0.000	\$0.000	\$0.000	\$12.829
Groundwater Basin Management											
Groundwater Management Plan/SNMP Update	\$0.231	\$0.096	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.327
Groundwater Management Plan/SNMP Update	\$0.539	\$0.224	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.763
MGDP RO Membrane Replacement	\$0.000	\$0.000	\$0.000	\$0.620	\$0.000	\$0.000	\$0.000	\$0.000	\$0.750	\$0.000	\$1.370
Monitoring Well Replacements & Abandonments	\$0.000	\$0.000	\$0.000	\$0.120	\$0.000	\$0.130	\$0.000	\$0.130	\$0.000	\$0.140	\$0.520
Subtotal	\$0.770	\$0.320	\$0.000	\$0.740	\$0.000	\$0.130	\$0.000	\$0.130	\$0.750	\$0.140	\$2.980
Program Management											
Asset Management Program Management	\$0.040	\$0.040	\$0.040	\$0.290	\$0.050	\$0.050	\$0.050	\$0.050	\$0.360	\$0.060	\$1.030
Capital Improvement Program Management	\$0.038	\$0.083	\$0.045	\$0.090	\$0.045	\$0.098	\$0.053	\$0.105	\$0.053	\$0.113	\$0.720
Capital Improvement Program Management	\$0.013	\$0.028	\$0.015	\$0.030	\$0.015	\$0.033	\$0.018	\$0.035	\$0.018	\$0.038	\$0.240
Expansion Program Management (ISA interest costs)	\$0.653	\$0.450	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.103
System-Wide Improvement, Renewal/Replacement Program Management	\$0.050	\$0.050	\$0.060	\$0.060	\$0.060	\$0.080	\$0.070	\$0.070	\$0.070	\$0.070	\$0.640
Subtotal	\$0.793	\$0.650	\$0.160	\$0.470	\$0.170	\$0.260	\$0.190	\$0.260	\$0.500	\$0.280	\$3.733
Regulatory Compliance Monitoring											
Laboratory Equipment Replacement	\$0.170	\$0.160	\$0.120	\$0.130	\$0.130	\$0.130	\$0.140	\$0.150	\$0.160	\$0.160	\$1.450
Subtotal	\$0.170	\$0.160	\$0.120	\$0.130	\$0.130	\$0.130	\$0.140	\$0.150	\$0.160	\$0.160	\$1.450
Transmission & Distribution											
Corrosion Master Plan Update	\$0.000	\$0.220	\$0.000	\$0.000	\$0.000	\$0.000	\$0.280	\$0.000	\$0.000	\$0.000	\$0.500
CWS Turnout #4 Relocation/Replacement	\$0.000	\$0.460	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.460
Distribution System Control Station Replacement	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.010	\$0.000	\$1.010
New Water Treatment Plant Transmission Pipeline	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.370	\$3.920	\$14.250	\$19.540
System-Wide Installation of Line Valves	\$0.000	\$0.000	\$0.000	\$0.060	\$0.000	\$0.000	\$0.000	\$0.000	\$0.070	\$0.000	\$0.130
Subtotal	\$0.000	\$0.680	\$0.000	\$0.060	\$0.000	\$0.000	\$0.280	\$1.370	\$5.000	\$14.250	\$21.640
Water Supply & Conveyance											
Arroyo Del Valle Water Right Permit Extension	\$0.450	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.450
Arroyo Mocho Diversion Facility Coordination & Implementation	\$0.110	\$0.120	\$0.240	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.470
Arroyo Mocho Low Flow Crossings	\$0.070	\$0.630	\$0.110	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.810

Capital Improvement Program
Project Summary by Program
(Appropriations shown in \$Millions)
(Continued)

Programs	Appropriations (\$Millions)										Total
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	
Bay Area Regional Desalination Project - Planning	\$0.210	\$0.220	\$0.220	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.650
Bay-Delta Conservation Planning (Zone 7)	\$0.060	\$0.060	\$0.060	\$0.060	\$0.070	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.310
Cawelo Groundwater Banking Program	\$1.296	\$1.293	\$1.294	\$1.295	\$1.294	\$1.293	\$1.297	\$1.299	\$1.299	\$1.298	\$12.958
Chain of Lakes Facilities and Improvements - Water Supply	\$0.042	\$0.639	\$0.423	\$0.225	\$1.824	\$0.036	\$0.396	\$0.000	\$0.000	\$0.000	\$3.585
Chain of Lakes Facilities and Improvements - Water Supply	\$0.098	\$1.491	\$0.987	\$0.525	\$4.256	\$0.084	\$0.924	\$0.000	\$0.000	\$0.000	\$8.365
Chain of Lakes Master Planning	\$0.050	\$0.050	\$0.110	\$1.400	\$0.910	\$0.250	\$0.130	\$0.070	\$0.500	\$0.070	\$3.540
CUWA Membership	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.030	\$0.030	\$0.220
Delta Habitat Conservation and Conveyance Program	\$0.010	\$0.010	\$0.010	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.030	\$0.030	\$0.190
Delta Outreach Program	\$0.030	\$0.030	\$0.030	\$0.040	\$0.040	\$0.040	\$0.000	\$0.000	\$0.000	\$0.000	\$0.210
Fixed Cost of Water Entitlement	\$0.652	\$0.647	\$0.648	\$0.620	\$0.570	\$0.521	\$0.475	\$0.424	\$0.369	\$0.317	\$5.243
Fourth Contractor's Share of the SBA - Sinking Fund	\$0.028	\$0.028	\$0.527	\$0.548	\$0.570	\$0.593	\$0.617	\$0.641	\$0.667	\$0.694	\$4.913
Fourth Contractor's Share of the SBA (capital costs)	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$2.100	\$21.000
High-Efficiency Toilet Rebate Program	\$0.030	\$0.030	\$0.030	\$0.030	\$0.030	\$0.030	\$0.000	\$0.000	\$0.000	\$0.000	\$0.180
High-Efficiency Washing Machine Rebate Program	\$0.090	\$0.100	\$0.100	\$0.090	\$0.070	\$0.080	\$0.060	\$0.060	\$0.040	\$0.040	\$0.730
Hopyard Wellfield Pipeline – Connection with Hopyard Well No. 9	\$0.000	\$0.000	\$0.000	\$0.230	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.230
Lakes H, I and Cope Facility Planning	\$0.078	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.078
Lakes H, I and Cope Facility Planning	\$0.078	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.078
Maximize Yield from Existing Contract with BBID Study	\$0.100										\$0.100
PPWTP Clearwell Improvements	\$0.000	\$0.000	\$0.000	\$0.100	\$0.540	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.640
Reliability Intertie	\$0.000	\$0.000	\$0.000	\$0.000	\$0.511	\$1.064	\$0.826	\$4.312	\$10.759	\$0.000	\$17.472
Reliability Intertie	\$0.000	\$0.000	\$0.000	\$0.000	\$0.219	\$0.456	\$0.354	\$1.848	\$4.611	\$0.000	\$7.488
Semitropic Stored Water Recovery Unit	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.048	\$0.480
South Bay Aqueduct Enlargement Project	\$14.890	\$15.125	\$15.123	\$15.124	\$15.123	\$15.118	\$15.117	\$15.123	\$15.123	\$15.124	\$150.990
South Bay Aqueduct Enlargement Project - Sinking Fund	\$0.166	\$0.170	\$1.074	\$1.117	\$1.161	\$1.208	\$1.256	\$1.306	\$1.359	\$1.413	\$10.230
SWP Peaking Payment (Lost Hills & Belridge Water Districts)	\$0.038	\$0.036	\$0.070	\$0.062	\$0.059	\$0.051	\$0.048	\$0.040	\$0.036	\$0.029	\$0.469
Water Conservation Best Management Practices	\$0.020	\$0.020	\$0.030	\$0.030	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	\$0.220
Water Supply Replacement	\$0.000	\$0.000	\$0.000	\$0.000	\$1.580	\$1.640	\$1.710	\$1.780	\$7.120	\$7.400	\$21.230
Water System Master Plan	\$0.040	\$0.140	\$0.148	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.328
Water System Master Plan	\$0.060	\$0.210	\$0.222	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.492
Westside Transmission System Improvements	\$0.000	\$0.000	\$0.000	\$0.530	\$0.640	\$6.200					\$7.370
Subtotal	\$20.863	\$23.217	\$23.624	\$24.214	\$31.675	\$30.872	\$25.418	\$29.111	\$44.111	\$28.613	\$281.718
Water Treatment Facilities											
Construction of Three Dual Media Filters to Expand PPWTP	\$0.000	\$0.000	\$0.970	\$4.210	\$4.010	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$9.190
Dougherty Reservoir Access Road Rehabilitation	\$0.000			\$0.050							\$0.050
Dougherty Reservoir Recoating	\$0.000		\$0.000	\$1.860	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.860
DVWTP Ammonia System Replacement	\$1.020	\$0.780	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.800
DVWTP Chemical Systems Improvements	\$3.430	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$3.430

Capital Improvement Program
Project Summary by Program
(Appropriations shown in \$Millions)
(Continued)

Programs	Appropriations (\$Millions)										Total
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	
DVWTP Chemical Tanks and Feed Pumps Replacement	\$0.000	\$0.000	\$0.000	\$0.180	\$0.910	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.090
DVWTP Filter Media and Underdrain Replacement	\$0.000	\$0.000	\$0.000	\$0.000	\$0.250	\$1.600	\$0.000	\$0.000	\$0.000	\$0.000	\$1.850
DVWTP Filter Valves Replacement	\$0.000	\$0.000	\$0.000	\$0.410	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.410
DVWTP HVAC Replacement	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.110	\$0.640	\$0.750
DVWTP Instrumentation Upgrades	\$0.000	\$0.000	\$0.030	\$0.350	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.380
DVWTP Interior Coating Improvements to the 4.5 MG Steel Clearwell	\$1.630	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.630
DVWTP Rehabilitation Project	\$0.000	\$0.000	\$0.000	\$0.000	\$0.360	\$2.310	\$0.000	\$0.000	\$0.000	\$0.000	\$2.670
DVWTP Roof Replacement and Rehabilitation for 3.0 MG Clearwell	\$0.000	\$0.000	\$0.080	\$0.500	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.580
DVWTP Sludge Handling Improvements	\$2.390	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$2.390
DVWTP Superpulsator Rehabilitation	\$0.000	\$2.560	\$2.400	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$4.960
DVWTP Valve Replacements for 3 MG Clearwell	\$0.170	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.170
DWR Land Acquisition adjacent to PPWTP	\$0.364										\$0.364
DWR Land Acquisition adjacent to PPWTP	\$0.156										\$0.156
Minor Renewal/Replacement Projects	\$0.260	\$0.270	\$0.280	\$0.290	\$0.300	\$0.320	\$0.330	\$0.340	\$0.360	\$0.370	\$3.120
PPWTP Ammonia Facility Replacement	\$0.900	\$0.680	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.580
PPWTP Chemical Improvements Project	\$0.000	\$0.000	\$0.220	\$0.580	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.800
PPWTP Filter System Rehabilitation	\$0.000	\$0.000	\$0.450	\$0.000	\$0.210	\$1.670	\$0.000	\$0.000	\$0.000	\$0.000	\$2.330
PPWTP Instrumentation Upgrades	\$0.000	\$0.000	\$0.000	\$0.000	\$0.120	\$0.440	\$0.000	\$0.000	\$0.000	\$0.000	\$0.560
PPWTP Maintenance Yard and Building Improvements	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.039	\$0.294	\$0.288		\$0.621
PPWTP Maintenance Yard and Building Improvements	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.091	\$0.686	\$0.672		\$1.449
PPWTP Sludge Handling Improvements	\$0.000	\$0.000	\$0.000	\$0.820	\$3.650	\$0.380	\$0.000	\$0.000	\$0.000	\$0.000	\$4.850
PPWTP Ultrafiltration Membrane Replacement	\$0.390	\$0.410	\$0.440	\$0.450	\$0.480	\$0.500					\$2.670
Safety Improvements at Water Treatment Plants	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.070	\$0.000	\$0.000	\$0.000	\$0.070
SCADA Enhancements	\$0.220	\$0.230	\$1.070	\$0.250	\$0.250	\$0.270	\$1.250	\$0.290	\$0.300	\$0.320	\$4.450
Water Quality - Ozonation at PPWTP & DVWTP	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$3.260	\$13.700	\$25.780	\$42.740
Water Quality Management Program	\$0.012	\$0.006	\$0.012	\$0.006	\$0.015	\$0.006	\$0.015	\$0.006	\$0.018	\$0.006	\$0.102
Water Quality Management Program	\$0.028	\$0.014	\$0.028	\$0.014	\$0.035	\$0.014	\$0.035	\$0.014	\$0.042	\$0.014	\$0.238
Water Treatment Plant Expansion (24 MGD)	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$5.920	\$5.920
Subtotal	\$10.970	\$4.950	\$5.980	\$9.970	\$10.590	\$7.510	\$1.830	\$4.890	\$15.490	\$33.050	\$105.230
Wells											
Busch-Valley Well 1	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.430	\$1.230	\$2.440	\$4.100
Chain of Lakes Well 5	\$0.000	\$0.000	\$0.000	\$0.000	\$1.880	\$5.700	\$0.660	\$0.000	\$0.000	\$0.000	\$8.240
Chain of Lakes Wells 3 & 4	\$0.000	\$0.000	\$0.000	\$1.220	\$2.950	\$11.070	\$0.980	\$0.000	\$0.000	\$0.000	\$16.220
El Charro Pipeline Phase 2	\$0.000	\$0.000	\$0.000	\$0.560	\$6.410	\$0.610	\$0.000	\$0.000	\$0.000	\$0.000	\$7.580
Mocho 2 Well Improvements/Rehabilitation	\$0.000	\$0.000	\$0.200	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.200
Mocho Well 2 - VFD Retrofit	\$0.330	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.330
Well Pump, Motor and Casing Inspections	\$0.000	\$0.000	\$0.000	\$0.110	\$0.000	\$0.120	\$0.000	\$0.130	\$0.000	\$0.140	\$0.500
Wellfield Switchboard Replacement Project	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.350	\$0.000	\$0.000	\$0.000	\$0.000	\$1.350
Subtotal	\$0.330	\$0.000	\$0.200	\$1.890	\$11.240	\$18.850	\$1.640	\$0.560	\$1.230	\$2.580	\$38.520
Total	\$35.242	\$31.351	\$32.016	\$39.450	\$55.827	\$59.818	\$31.611	\$36.471	\$67.241	\$79.073	\$468.100

Water Project Summary Listing

The following list shows the project title and page number for each Water System capital project in this Ten-Year CIP.

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Project Summaries

The following project summaries are presented in the order they appear in the Project Listing.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Buildings & Grounds
Project	Administrative & Engineering Building - Sinking Fund (Fund 72)
Project ID:	SP21
Strategic Plan Priority	1.3
Project Description	In addition to the scheduled lease payment for the new building, an annual contribution is made to a sinking fund in order to cover the purchase cost of the building after the lease payments have been completed in FY 2018/19.
Justification	This sinking fund will cover the cost to purchase the new Administrative & Engineering Building after Zone 7's 15-year lease is completed. Origin: Capital Improvement Program
Responsible Section	ASD Administrative Services Division
Operating Impact	None.
In Service Date	Month: June Year: 2019
Total Project Cost	\$5,606,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$2,691	\$386	\$395	\$406	\$416	\$427	\$437	\$448	\$0	\$0	\$0	\$0	\$5,606
Total	\$2,691	\$386	\$395	\$406	\$416	\$427	\$437	\$448	\$0	\$0	\$0	\$0	\$5,606

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Buildings & Grounds
Project	Administrative & Engineering Building - Sinking Fund (Fund 73)
Project ID:	SP11
Strategic Plan Priority	1.3
Project Description	In addition to the scheduled lease payment for the new building, an annual contribution is made to a sinking fund in order to cover the purchase cost of the building after the lease payments have been completed in FY 2018/19.
Justification	This sinking fund will cover the cost to purchase the new Administrative & Engineering Building after Zone 7's 15-year lease is completed. Origin: Capital Improvement Program
Responsible Section	ASD Administrative Services Division
Operating Impact	None.
In Service Date	Month: June Year: 2019
Total Project Cost	\$4,428,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$1,391	\$35	\$36	\$564	\$578	\$593	\$608	\$623	\$0	\$0	\$0	\$0	\$4,428
Total	\$1,391	\$35	\$36	\$564	\$578	\$593	\$608	\$623	\$0	\$0	\$0	\$0	\$4,428

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion Renewal/Replacement
Program	Buildings & Grounds
Project	Administrative & Engineering Building Lease (Water System)
Project ID:	SP1
Strategic Plan Priority	1.3
Project Description	A new office building has been constructed for administrative and engineering staff. The new building has a larger Board Room for public meetings. It is located closer to operations (treatment plants), and is more centrally located for employees and Valley residents. The cost is based on "Build to Suit" option and includes lease payments. In addition to the scheduled lease payment for the new building, an annual contribution is made to a sinking fund in order to cover the purchase cost of the building after the lease payments have been completed in FY 2018/19.
Justification	Engineering, administrative and operations staff were at different locations. This project has brought administrative and engineering at one site and brings both closer to operations. This project also accommodates future expansion. It reduces overall agency travel times, improves communications and staff productivity. Origin: Capital Improvement Program
Responsible Section	ASD Administrative Services Division
Operating Impact	Provides for more efficient and effective operations of administrative and engineering functions. Provides for secure Emergency Operations Center (EOC), as the new building meets strictest building and safety codes.
In Service Date	Month: June Year: 2019
Total Project Cost	\$11,538,000
Source of Funds	Fund 72 Water Rates 56% Fund 73 Connection Fees 44%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$4,661	\$925	\$943	\$962	\$982	\$1,002	\$1,021	\$1,042	\$0	\$0	\$0	\$0	\$11,538
Total	\$4,661	\$925	\$943	\$962	\$982	\$1,002	\$1,021	\$1,042	\$0	\$0	\$0	\$0	\$11,538

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Supply & Conveyance
Project	Arroyo Del Valle Water Right Permit Extension
Project ID:	WP26
Strategic Plan Priority	1.1,1.2,1.4
Project Description	Zone 7 Water Agency has an existing permit with the State Water Resources Control Board – Division of Water Rights to divert water from Arroyo del Valle. The permit was set to expire on December 31, 2007. Zone 7 filed a petition for extension of time on December 19, 2007. The purpose of this project is to secure an extension through 2040. As part of this work, Zone 7 will need to complete a hydrologic and environmental study.
Justification	Zone 7 has been diligently pursuing and constructing the necessary facilities to perfect its existing water right permit on Arroyo del Valle. The majority of the project is complete and in use. However, Zone 7 cannot finish the project until a number of gravel mining pits are completed – completion of the gravel mining pits is outside of Zone 7's control. The completion of the water rights permit extension is necessary to avoid the loss of approximately 3000 AF of long-term water supply. Several organizations have filed a protest against the petition for extension of time. This project is required to complete the extension, and ensure Zone 7 does not lose existing water supplies. Origin: 2011 Water Supply Evaluation Report
Responsible Section	FE Facilities Engineering
Operating Impact	Protects existing water supplies and water system reliability.
In Service Date	Month: December Year: 2013
Total Project Cost	\$1,003,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$553	\$450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,003
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$553	\$450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,003

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Arroyo Mocho Diversion Facility Coordination & Implementation
Project ID:	COL9
Strategic Plan Priority	1.1,1.4
Project Description	This project is located along Arroyo Mocho near Cope Lake and Lake H. The diversion structure would consist of a concrete foundation within Arroyo Mocho equipped with a diversion facility (e.g., Obermeyer gates or an inflatable rubber dam), along with other appurtenances necessary to accomplish water management in an environmentally sensitive way. The project would also include pipelines and other equipment necessary to control the diversion facility and move water into the chain of lakes. Hansen Aggregates is responsible for designing, permitting, and constructing the diversion facility at no cost to Zone 7; therefore, the costs below only reflect Zone 7 staff time to assist Hansen, as necessary, and costs for other necessary facilities (e.g., such as SCADA).
Justification	Completion of this project is necessary to allow Zone 7 to manage water as described in the Specific Plan for Livermore-Amador Valley Quarry Area Reclamation. Origin: Livermore-Amador Valley Quarry Area Reclamation Specific Plan, 2006 Stream Management Master Plan
Responsible Section	IP Integrated Planning
Operating Impact	Adds new O&M and repair & replacement expenses for Zone 7.
In Service Date	Month: October Year: 2014
Total Project Cost	\$871,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$402	\$110	\$120	\$240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$872
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$402	\$110	\$120	\$240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$872

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Arroyo Mocho Low Flow Crossings
Project ID:	COL8
Strategic Plan Priority	1.4,1.1
Project Description	This project provides stream channel improvements at two existing driveway crossings on the Arroyo Mocho off Mines Road to facilitate future artificial flow increases associated with the filling of the Chain of Lakes.
Justification	Zone 7 plans to use Lakes H and I for artificial groundwater recharge. This initial Chain of Lakes operation requires Zone 7 to increase its typical releases from 20 cubic feet per second (cfs) to up to 50 cfs; however the higher flows will preclude access of two residences located across the stream from their Mines Road driveway entrances. These improvements are necessary to route a substantial portion of the artificial flows below the crossing surface to facilitate vehicular access to the residences. Origin: Arroyo Mocho Diversion Project
Responsible Section	FE Facilities Engineering
Operating Impact	Increases water supply reliability. Increases channel maintenance costs.
In Service Date	Month: October Year: 2014
Total Project Cost	\$1,185,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$70	\$40	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110
Design	\$375	\$0	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$495
Construction	\$0	\$0	\$470	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$580
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$375	\$70	\$630	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,185

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Program Management
Project	Asset Management Program Management
Project ID:	SP18
Strategic Plan Priority	1.3
Project Description	Ongoing program management of the Asset Management Program (AMP). Activities include facilitating condition assessments, maintaining the asset database, regular updates of the AMP, and other ongoing implementation tasks.
Justification	Assures that assets in need of repair or replacement are identified and corrected. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational effectiveness.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$4,020,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$310	\$40	\$40	\$40	\$290	\$50	\$50	\$50	\$50	\$360	\$60	\$2,680	\$4,020
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$310	\$40	\$40	\$40	\$290	\$50	\$50	\$50	\$50	\$360	\$60	\$2,680	\$4,020

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Bay Area Regional Desalination Project - Planning
Project ID:	WP21
Strategic Plan Priority	1.1,1.5
Project Description	The Bay Area Regional Desalination Project (BARDP) is a joint effort with the San Francisco Public Utilities Commission (SFPUC), Santa Clara Valley Water District (SCVWD), East Bay Municipal Utility District (EBMUD), and Contra Costa Water District (CCWD) to develop a regional desalination facility. The facility would likely be located in eastern Contra Costa County with water wheeled to Zone 7 through a new intertie with EBMUD. The total project cost presented below includes Zone 7's share of estimated costs for the preliminary design and environmental permitting process; it assumes that the five-agency partnership moves forward with the BARDP after completion of the ongoing site-specific analysis.
Justification	For Zone 7, the BARDP is a potential source of future water supply being evaluated along with other water supply options. The BARDP offers the benefit of a drought-resistant and high-quality water supply that reduces reliance on the SWP and diversifies Zone 7's existing water supply mix. Zone 7 can potentially receive up to 5,600 acre-foot of water every year, or only during normal/wet years, from the BARDP starting sometime between 2020 and 2025. Origin: 2010 Urban Water Management Plan, 2011 Water Supply Evaluation Report
Responsible Section	IP Integrated Planning
Operating Impact	Increased water reliability.
In Service Date	Month: December Year: 2015
Total Project Cost	\$931,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$281	\$210	\$220	\$220	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$931
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$281	\$210	\$220	\$220	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$931

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Bay-Delta Conservation Planning (Zone 7)
Project ID:	WP17
Strategic Plan Priority	1.7
Project Description	This project covers Zone 7's internal staff time and legal costs associated with participating in the development of the Bay Delta Conservation Plan (BDCP). The BDCP is a Habitat Conservation Plan/Natural Community Conservation Plan that provides a more flexible basis for endangered species protection. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.
Justification	Develops a long-term plan for the Delta that ensures water supply reliability in the future through continued use of the Delta as a conveyance system for water imported from the Sierra Nevada. The Delta as a conveyance is threatened by fragile levees, seismic risk, climate change and uncertain environmental regulations.
	Origin: Capital Improvement Program
Responsible Section	OGM Office of the General Manager
Operating Impact	Improved reliability.
In Service Date	Month: June Year: 2017
Total Project Cost	\$858,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$548	\$60	\$60	\$60	\$60	\$70	\$0	\$0	\$0	\$0	\$0	\$0	\$858
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$548	\$60	\$60	\$60	\$60	\$70	\$0	\$0	\$0	\$0	\$0	\$0	\$858

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy Expansion

Program Wells

Project Busch-Valley Well 1

Project ID: W38

Strategic Plan Priority 1.4,1.8

Project Description This project is Phase 3 of the Well Master Plan, and consists of one new municipal water supply well and additional pipelines. The estimated project cost includes planning, land acquisition, well design and drilling, facility design and construction, pipeline additions, and miscellaneous site work. The costs also include construction of a new pipeline, which is required for Phase 3 to connect the new well to Zone 7's existing transmission system.

Justification Additional municipal water supply wells are required to maximize existing local storage in the Livermore Valley Groundwater Basin during droughts and facility outages. Maximizing local storage during drought and facility outages allows Zone 7 to meet projected water demands, even during worse-case drought conditions, as established in Zone 7 Resolutions 04-2662 and 06-2786. These wells will also provide Zone 7 more control over groundwater levels, groundwater flow, and dissolved salt build-up/removal.

Origin: 2003 Well Master Plan and 2011 WSE

Responsible Section FE Facilities Engineering

Operating Impact System reliability.

In Service Date Month: April Year: 2025

Total Project Cost \$15,940,000

Source of Funds Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$430	\$0	\$0	\$430
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$430	\$0	\$590	\$620	\$1,640
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800	\$1,850	\$11,220	\$13,870
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$430	\$1,230	\$2,440	\$11,840	\$15,940

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion Renewal/Replacement
Program	Program Management
Project	Capital Improvement Program Management
Project ID:	SP13
Strategic Plan Priority	1.3
Project Description	Ongoing program management of the Capital Improvement Program (CIP) including annual report preparation, Zone 7 labor and other CIP related efforts.
Justification	Provides for better tracking of program management costs. Origin: Capital Improvement Program
Responsible Section	ASD Administrative Services Division FE Facilities Engineering
Operating Impact	None
In Service Date	Month: Year: Ongoing
Total Project Cost	\$5,103,000
Source of Funds	Fund 50 Flood Control/General Fund 3% Fund 72 Water Rates 20% Fund 73 Connection Fees 75% Fund 76 Flood Protection and Special Drainage Area 2%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$1,313	\$50	\$110	\$60	\$120	\$60	\$130	\$70	\$140	\$70	\$150	\$2,830	\$5,103
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$1,313	\$50	\$110	\$60	\$120	\$60	\$130	\$70	\$140	\$70	\$150	\$2,830	\$5,103

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Cawelo Groundwater Banking Program
Project ID:	WP11
Strategic Plan Priority	1.1,1.8
Project Description	On June 21, 2006, the Zone 7 Board of Directors approved an agreement with the Cawelo Water District (a member unit of Kern County Water Agency) for a water banking and exchange program. The banking program will increase Zone 7's dry-year water supply by up to 10,000 acre-feet per year. Zone 7 will be able to store up to 120,000 acre-feet of water within the Cawelo Water District area. Cawelo financed this program by a \$21.55 million sale of Certificates of Participation (COP) on August 15, 2006. The COPs run through 2035 with an interest rate of 4% that increases to 4.67% by 2035. By agreement, Zone 7 will reimburse Cawelo for the COP annual debt service of about \$1.3 million per year.
Justification	Increases reliability by providing additional water supplies during drought years. Origin: 1999 Water Supply Plan
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational reliability.
In Service Date	Month: June Year: 2035
Total Project Cost	\$38,515,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$7,268	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,268
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$1,296	\$1,293	\$1,294	\$1,295	\$1,294	\$1,293	\$1,297	\$1,299	\$1,299	\$1,298	\$18,289	\$31,247
Total	\$7,268	\$1,296	\$1,293	\$1,294	\$1,295	\$1,294	\$1,293	\$1,297	\$1,299	\$1,299	\$1,298	\$18,289	\$38,515

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements Expansion		
Program	Water Supply & Conveyance		
Project	Chain of Lakes Facilities and Improvements - Water Supply		
Project ID:	COL10		
Strategic Plan Priority	1.2,1.4,1.1,2.7		
Project Description	This project consists of the design and construction of elements of the Chain of Lakes identified and recommended for water supply needs by near-term and long-term planning efforts completed as part of the Chain of Lakes Program Management and Planning project, or projects required to operate and maintain the Chain of Lakes for water supply purposes. Examples of projects that could be completed under this project include, but are not limited to, diversion structure related improvements, pump stations, pipelines, flow meters, water level meters, recharge monitoring piezometers, fencing, access roads, and slope re-grading and landscaping. Projects related to Flood Control are included in the CIP as separate projects (not part of this project).		
Justification	The Chain of Lakes are a series of gravel mining pits that will be dedicated to Zone 7 over the next 20 to 30 years for water management purposes. More specifically, these series of lakes will allow Zone 7 to reduce evaporative losses and implement mitigative measures for salt loading in the Livermore Valley Groundwater Basin, and enhance artificial recharge and flood protection activities. All of these activities are necessary to providing a reliable supply of high quality water and an effective flood control system to the Livermore-Amador Valley. This project will allow Zone 7 to design and implement the projects necessary for Zone 7 to use the Chain of Lakes for water supply after dedication. Origin: 2006 Stream Management Master Plan, 2011 Water Supply Evaluation Report		
Responsible Section	FE Facilities Engineering		
Operating Impact	Increase of water supply reliability. Increased O&M costs.		
In Service Date	Month: December Year: 2035		
Total Project Cost	\$77,947,000		
Source of Funds	Fund 72	Water Rates	30%
	Fund 73	Connection Fees	70%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$3,367	\$30	\$20	\$80	\$290	\$0	\$60	\$0	\$0	\$0	\$0	\$2,940	\$6,787
Design	\$220	\$40	\$0	\$70	\$280	\$0	\$60	\$0	\$0	\$0	\$0	\$3,780	\$4,450
Construction	\$90	\$70	\$2,110	\$1,260	\$180	\$6,080	\$0	\$1,320	\$0	\$0	\$0	\$55,600	\$66,710
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$3,677	\$140	\$2,130	\$1,410	\$750	\$6,080	\$120	\$1,320	\$0	\$0	\$0	\$62,320	\$77,947

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Chain of Lakes Master Planning
Project ID:	COL6
Strategic Plan Priority	1.1
Project Description	This project consists of the near-term and long-term management and planning necessary to integrate the Chain of Lakes into Zone 7's water supply system, and into various general plans, specific plans, on-going construction, or other activities in the Livermore-Amador Valley. Program elements may include coordinating with the California High Speed Rail Authority. Master planning will incorporate the recommendations from other Zone 7 planning efforts, including the Stream Management Master Plan and the Water System Master Plan update.
Justification	The Chain of Lakes are a series of gravel mining pits that will be dedicated to Zone 7 over the next 20 to 30 years for water management purposes. More specifically, these series of lakes will allow Zone 7 to reduce evaporative losses and implement mitigative measures for salt loading in the Livermore Valley Groundwater Basin, and enhance artificial recharge and flood protection activities. All of these activities are necessary to providing a reliable supply of high quality water and an effective flood control system to the Livermore-Amador Valley. This project will allow Zone 7 to design and implement the projects necessary for Zone 7 to use the Chain of Lakes for water supply after dedication. Origin: 2006 Stream Management Master Plan, 2011 Water Supply Evaluation Report
Responsible Section	IP Integrated Planning
Operating Impact	Enhances Zone 7's ability to manage water.
In Service Date	Month: June Year: 2013
Total Project Cost	\$6,175,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$595	\$50	\$50	\$110	\$1,050	\$910	\$250	\$130	\$70	\$70	\$70	\$2,040	\$5,395
Design	\$0	\$0	\$0	\$0	\$350	\$0	\$0	\$0	\$0	\$430	\$0	\$0	\$780
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$595	\$50	\$50	\$110	\$1,400	\$910	\$250	\$130	\$70	\$500	\$70	\$2,040	\$6,175

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Wells
Project	Chain of Lakes Well 5
Project ID:	W37
Strategic Plan Priority	1.4,1.8
Project Description	This project is Phase 2A of the Well Master Plan, and consists of one new municipal water supply well and additional pipelines. The estimated project cost includes planning, easement acquisition, well design and drilling, facility design and construction, pipeline additions, and miscellaneous site work.
Justification	Additional municipal water supply wells are required to maximize existing local storage in the Livermore Valley Groundwater Basin for use during droughts and facility outages. This allows Zone 7 to meet projected water demands, even during worse-case drought conditions, as established in Zone 7 Resolutions 04-2662 and 06-2786. These wells will also provide Zone 7 more control over groundwater levels, groundwater flow, dissolved salt build-up/removal. Origin: 2003 Well Master Plan and 2011 WSE
Responsible Section	FE Facilities Engineering
Operating Impact	System reliability.
In Service Date	Month: April Year: 2020
Total Project Cost	\$8,240,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$120
Design	\$0	\$0	\$0	\$0	\$0	\$360	\$380	\$0	\$0	\$0	\$0	\$0	\$740
Construction	\$0	\$0	\$0	\$0	\$0	\$1,400	\$5,320	\$660	\$0	\$0	\$0	\$0	\$7,380
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$1,880	\$5,700	\$660	\$0	\$0	\$0	\$0	\$8,240

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Wells
Project	Chain of Lakes Wells 3 & 4
Project ID:	W36
Strategic Plan Priority	1.4,1.8
Project Description	This project is Phase 2 of the Well Master Plan, and consists of two new municipal water supply wells and additional connecting pipelines. The estimated project cost includes planning, land acquisition, well design and drilling, facility design and construction, pipeline additions, and miscellaneous site work.
Justification	Additional municipal water supply wells are required to maximize existing local storage in the Livermore Valley Groundwater Basin for use during droughts and facility outages. This allows Zone 7 to meet projected water demands, even during worse-case drought conditions, as established in Zone 7 Resolutions 04-2662 and 06-2786. These wells will also provide Zone 7 more control over groundwater levels, groundwater flow, dissolved salt build-up/removal. Origin: 2003 Well Master Plan and 2011 WSE
Responsible Section	FE Facilities Engineering
Operating Impact	System reliability.
In Service Date	Month: April Year: 2020
Total Project Cost	\$16,220,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$350	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$410
Design	\$0	\$0	\$0	\$0	\$520	\$550	\$630	\$0	\$0	\$0	\$0	\$0	\$1,700
Construction	\$0	\$0	\$0	\$0	\$350	\$2,340	\$10,440	\$980	\$0	\$0	\$0	\$0	\$14,110
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$1,220	\$2,950	\$11,070	\$980	\$0	\$0	\$0	\$0	\$16,220

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Treatment Facilities
Project	Construction of Three Dual Media Filters to Expand PPWTP
Project ID:	PP62
Strategic Plan Priority	1.11
Project Description	The 8 mgd Patterson Pass Ultrafiltration Plant (UF Plant) was constructed as a temporary plant to enable Zone 7 to assess membranes for a future larger plant expansion. This project includes construction of three new dual media filters similar to the filtration system at the existing Patterson Pass conventional plant (PPWTP). The capacity provided by two of these filters will make the temporary 8 mgd capacity of the UF filtration permanent and the third filter will provide an additional mgd of filtration capacity to allow the UF clarifier to be fully utilized for its design capacity of 12 mgd. The project will also include filter backwash/washwater system expansion.
Justification	Under normal operations, there is extra capacity available for the next few years before demand growth catches up. It would be advantageous to use this near-term window to make the temporary UF capacity permanent by adding new conventional filters. In addition to power, chemical and maintenance costs, the UF plant is costing Zone 7 approximately \$350,000 annually to replace membrane modules. As the UF plant uses proprietary membrane modules, Zone 7 is potentially vulnerable to excessive cost increases and/or obsolescence of the membrane module. The additional filtration capacity provided by the filters will also provide an additional 4 mgd of surface water treatment capacity for anticipated future demands. Origin: 2000 Treated Water Facilities Master Plan, 2009 Peer Review of the Altamont Water Treatment Plant Site and Treatment Process Study, 2011 PPWTP Expansion Feasibility Evaluation (in progress)
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational reliability and production capacity, extension of filter systems service life.
In Service Date	Month: May Year: 2017
Total Project Cost	\$9,190,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$630	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$630
Design	\$0	\$0	\$0	\$340	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$690
Construction	\$0	\$0	\$0	\$0	\$3,510	\$3,650	\$0	\$0	\$0	\$0	\$0	\$0	\$7,160
Other	\$0	\$0	\$0	\$0	\$350	\$360	\$0	\$0	\$0	\$0	\$0	\$0	\$710
Total	\$0	\$0	\$0	\$970	\$4,210	\$4,010	\$0	\$0	\$0	\$0	\$0	\$0	\$9,190

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Transmission & Distribution
Project	Corrosion Master Plan Update
Project ID:	DS31
Strategic Plan Priority	1.3
Project Description	This project includes periodic updates to the Corrosion Master Plan and the evaluation of current condition of Zone 7's facilities with respect to corrosion and cathodic protection. It will recommend future studies and implement projects to repair and upgrade cathodic protection to ensure that the service lives of facilities are in compliance with industry standards. This program is planned to have a major update every 5 years.
Justification	This program is required to protect existing facilities from corrosion. In addition, the use of cathodic protection will lengthen facilities' service lives and helps to minimize water rate increases. Origin: Corrosion Master Plan
Responsible Section	FE Facilities Engineering
Operating Impact	Lengthen service life and improve reliability.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$3,280,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$80	\$0	\$0	\$0	\$670	\$810
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$160	\$0	\$0	\$0	\$0	\$200	\$0	\$0	\$0	\$2,110	\$2,470
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$220	\$0	\$0	\$0	\$0	\$280	\$0	\$0	\$0	\$2,780	\$3,280

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	CUWA Membership
Project ID:	WP15
Strategic Plan Priority	1.7
Project Description	This expenditure is for the California Urban Water Agencies (CUWA) annual membership dues (\$60,000/year) and various Zone 7 staff members participation in four standing CUWA committees: 1. Technical Advisory & Oversight, 2. Water Quality, 3. Water Conservation, and 4. Planning. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.
Justification	CUWA membership dues will complement on-going Delta studies, which are intended to maintain and improve Delta water quality and reliability, even as Delta exports increase. Origin: Capital Improvement Program
Responsible Section	FE Facilities Engineering
Operating Impact	Increased reliability and water quality.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$1,283,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$553	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$30	\$30	\$510	\$1,283
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$553	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$30	\$30	\$510	\$1,283

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Transmission & Distribution
Project	CWS Turnout #4 Relocation/Replacement
Project ID:	TO14
Strategic Plan Priority	1.3
Project Description	This project involves the design and construction of a new turnout. The new turnout replaces the existing turnout which is located in a heavily trafficked intersection of Livermore. The new and relocated turnout will be upgraded to present design standards including SCADA capability.
Justification	The current turnout was constructed in 1969 at the intersection of Railroad Ave and L St. in Livermore. Because of the significant increase in traffic at this location since construction, access to the turnout for monthly flow meter information retrieval and maintenance purposes is now extremely difficult and potentially hazardous. The 2011 AMP Update Report recommended replacement of this turnout because it is approaching the end of its useful life. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Improves access to turnout for both routine monthly visits and maintenance. Upgrades the turnout to present design standard ssafety and operational reliability and effectiveness.
In Service Date	Month: April Year: 2014
Total Project Cost	\$460,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30
Design	\$0	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50
Construction	\$0	\$0	\$270	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$270
Other	\$0	\$0	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110
Total	\$0	\$0	\$460	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$460

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Delta Habitat Conservation and Conveyance Program
Project ID:	WP19
Strategic Plan Priority	1.7
Project Description	The purpose of the Delta Habitat Conservation and Conveyance Program (DHCCP) is to develop alternatives for reliably conveying State Water Project (SWP) and Central Valley Project (CVP) water across or around the Delta in an environmentally sound manner. The information produced by the DHCCP will be incorporated into the Bay Delta Conservation Plan. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.
Justification	The Delta Conveyance Facility is needed to restore SWP Reliability to previously anticipated levels (about 75% long-term average yield) of SWP Contract Table A amounts. Currently, Endangered Species Act (State and Federal) concerns have limited SWP diversion exports. The Delta Conveyance Facilities will reduce the conflict between Delta exports and Delta habitat values. Additionally, the Delta Conveyance Facility will improve SWP water quality to Zone 7. There will be water quality improvements in salinity (TDS), toxics, disinfection by-products, etc. Origin: Capital Improvement Program
Responsible Section	OGM Office of the General Manager
Operating Impact	Increased SWP reliability and improved water quality.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$872,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$682	\$10	\$10	\$10	\$20	\$20	\$20	\$20	\$20	\$30	\$30	\$0	\$872
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$682	\$10	\$10	\$10	\$20	\$20	\$20	\$20	\$20	\$30	\$30	\$0	\$872

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Delta Outreach Program
Project ID:	WP18
Strategic Plan Priority	1.7
Project Description	Public outreach campaign to educate San Francisco Bay Area residents and leaders of the region's reliance on the Delta for water supply reliability and quality. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.
Justification	Develops San Francisco Bay Area support for Delta improvements to meet the challenges of the Delta as a conveyance system to import water from the Sierra Nevada. The system is threatened by fragile levees, seismic risk, climate change and uncertain environmental regulations. Origin: Capital Improvement Program
Responsible Section	OGM Office of the General Manager
Operating Impact	Improved reliability.
In Service Date	Month: June Year: 2018
Total Project Cost	\$378,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$168	\$30	\$30	\$30	\$40	\$40	\$40	\$0	\$0	\$0	\$0	\$0	\$378
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$168	\$30	\$30	\$30	\$40	\$40	\$40	\$0	\$0	\$0	\$0	\$0	\$378

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Transmission & Distribution
Project	Distribution System Control Station Replacement
Project ID:	DS48
Strategic Plan Priority	1.3
Project Description	This is a conceptual project recommended in the 2011 AMP study for condition assessment to better define the project scope, schedule, and cost. This project consists of the replacement of valves and ancillary equipment at the Cross Valley, Dougherty, Livermore (Station 220), and Vineyard Rate Control Stations.
Justification	According to the 2011 AMP Update, the valves at these rate control stations are reaching the end of their useful life. Zone 7's control stations are critical to delivering an adequate water supply to Retailer turnouts. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Maintains operational functionality and reliability.
In Service Date	Month: June Year: 2021
Total Project Cost	\$1,010,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40	\$0	\$0	\$40
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100	\$0	\$0	\$100
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$870	\$0	\$0	\$870
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,010	\$0	\$0	\$1,010

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	Dougherty Reservoir Access Road Rehabilitation
Project ID:	DV122
Strategic Plan Priority	1.3,1.8
Project Description	Surface maintenance and road repairs to the Dougherty Reservoir access road is needed. This project consists of a completed pavement condition assessment and involves recommended pavement surface coating (slurry coat or chip seal), filling cracks, and repairing damaged pavement and base areas.
Justification	This project will maintain the Dougherty Reservoir access road in a safe and serviceable condition, extending the time period for which repaving and replacement repairs would be needed. Origin: 2007 DVWTP Access Road and Parking Lot/Dougherty Reservoir Access Road Pavement Rehabilitation Report and staff's 2011 field inspection
Responsible Section	FE Facilities Engineering
Operating Impact	Decrease maintenance, increase safety.
In Service Date	Month: June Year: 2016
Total Project Cost	\$50,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy Renewal/Replacement

Program Water Treatment Facilities

Project **Dougherty Reservoir Recoating**

Project ID: DV150

Strategic Plan Priority **1.3,1.8**

Project Description This project involves the recoating of the exterior and interior of the 4 MG steel tank, including all submerged metals and piping appurtenances, such as the interior ladder, manways, inlet/outlet and overflow pipes. A new, more-efficient cathodic protection system will be installed. As this facility is jointly owned with the Dublin San Ramon Services District, Zone 7's project cost is \$930,000, which reflects a 50 percent share for both Zone 7 and DSRSD. Scope includes a coating consultant to provide a coating system design. A heavy metals analysis for both the interior and exterior coatings should also be completed.

Justification The steel tank was constructed in 1984 and the original coating systems are nearing the end of their useful life. The 2011 bi-annual diver inspection found pockets of small blistering throughout the floor area, of which 10% are broken, which can lead to rusted nodules and steel damage. The walls and structural columns were reported to be in good condition. The roof panels and steel supports show rust bleeding. This project has been deferred from FY 11/12 to accommodate the delayed AMP funding ramp-up. The next bi-annual inspection (in FY 12/13) will help determine if the interior tank re-coating can be further deferred.

Origin: 2011 Dougherty Reservoir Diver Inspection Report

Responsible Section FE Facilities Engineering

Operating Impact A new coating will provide better corrosion protection of the steel substrate and prolong the useful life of the storage reservoir.

In Service Date **Month:** June **Year:** 2016

Total Project Cost \$1,860,000

Source of Funds Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20
Design	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$60
Construction	\$0	\$0	\$0	\$0	\$1,690	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,690
Other	\$0	\$0	\$0	\$0	\$90	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$90
Total	\$0	\$0	\$0	\$0	\$1,860	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,860

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Ammonia System Replacement
Project ID:	DV125
Strategic Plan Priority	1.3
Project Description	Replacement of the existing anhydrous ammonia system with an aqueous ammonia system, or upgrade existing system.
Justification	This project will replace or upgrade the last pure gaseous chemical system at DVWTP. Aqueous ammonia bulk storage will be approximately 19% ammonia and will be safer to handle and less of a hazardous threat; alternatively, the existing system could be upgraded with improved safety measures. While this project is recommended in the 2011 AMP study, its schedule is being moved up for these reasons. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Increase safety.
In Service Date	Month: June Year: 2014
Total Project Cost	\$1,800,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120
Design	\$0	\$140	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$140
Construction	\$0	\$680	\$700	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,380
Other	\$0	\$80	\$80	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$160
Total	\$0	\$1,020	\$780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,800

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Treatment Facilities
Project	DVWTP Chemical Systems Improvements
Project ID:	DV129
Strategic Plan Priority	1.2,1.3
Project Description	This project upgrades existing caustic soda and ferric chloride chemical storage facilities at DVWTP due to inadequate capacity. Project may involve new storage tanks with secondary containment structure, a new temperature-controlled storage building, chemical fill line and feed system improvements, SCADA coordination, chemical delivery truck roadway access improvements, and removal of existing under-sized tank.
Justification	As confirmed in the 2010 Asset Management Plan Condition Assessment, the chemical storage tank is not sized to properly and efficiently schedule chemical deliveries. Also, existing chemical feed systems are subject to constant mechanical failure. Replacement of the DVWTP parking lot is needed to return it to an acceptable standard; thereby ensuring safe conditions including chemical deliveries. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Improves ability to comply with regulatory requirements, increases operational effectiveness, increases reliability and safety, and decreases maintenance.
In Service Date	Month: June Year: 2013
Total Project Cost	\$3,430,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$3,120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,120
Other	\$0	\$310	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$310
Total	\$0	\$3,430	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,430

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Chemical Tanks and Feed Pumps Replacement
Project ID:	DV145
Strategic Plan Priority	1.3
Project Description	This is a project recommended in the 2011 AMP study for condition assessment to better define the project scope, schedule, and cost. Key chemical metering and storage tank systems to be assessed and replaced include, but are not limited to: (1) Sodium hypochlorite metering pumps for pre- and post- chlorination and for CT compliance (2) Ferric chloride metering pumps for conventional plant and DAF (3) Anionic polymer metering pumps for Pulsators and gravity thickener (4) Cationic polymer tank (5) Ancillary support for each chemical feed system The sodium hydroxide storage and feed system and ferric chloride storage tanks will be replaced in the DVWTP Chemical Systems Improvements in FY 11/12. The sodium hypochlorite storage tanks were replaced in 2010.
Justification	According to the 2011 AMP Update, the above listed systems have either reached or are nearing the end of their original useful life. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Increases ability to comply with regulatory requirements, increases operational effectiveness and reliability, and decreases maintenance.
In Service Date	Month: April Year: 2017
Total Project Cost	\$1,090,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$40	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40
Design	\$0	\$0	\$0	\$0	\$130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$130
Construction	\$0	\$0	\$0	\$0	\$0	\$880	\$0	\$0	\$0	\$0	\$0	\$0	\$880
Other	\$0	\$0	\$0	\$0	\$10	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$40
Total	\$0	\$0	\$0	\$0	\$180	\$910	\$0	\$0	\$0	\$0	\$0	\$0	\$1,090

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Filter Media and Underdrain Replacement
Project ID:	DV104
Strategic Plan Priority	1.3
Project Description	Replacement of the filter media and underdrain system for Filter Nos. 2 to 4 and the underdrain system for Filter 1. The media for Filter 1 was replaced in 2001 and should not need replacement. The original vitrified clay tile underdrain blocks are no longer manufactured and alternative systems such as a high density polyethylene block or a stainless steel system will need to be evaluated. An air scour system to supplement or replace the surface wash spray system should also be evaluated. Project should also evaluate epoxy coating the filter walls to protect the concrete and rebars.
Justification	This project is recommended in the 2011 AMP study since the filter media in Filters Nos. 2 to 4 and the underdrains in Filter Nos. 1 to 4 have reached the end of their useful life. This project will extend the useful life of the filters by another 25years. The anthracite media degrades and breaks down in size and angularity over time from backwashes. A new air scour system will improve the media cleaning, filter backwash efficiency, and conserve water for each backwash. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Improves filter operations and reliability.
In Service Date	Month: April Year: 2018
Total Project Cost	\$1,850,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$60
Design	\$0	\$0	\$0	\$0	\$0	\$180	\$0	\$0	\$0	\$0	\$0	\$0	\$180
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$1,460	\$0	\$0	\$0	\$0	\$0	\$1,460
Other	\$0	\$0	\$0	\$0	\$0	\$10	\$140	\$0	\$0	\$0	\$0	\$0	\$150
Total	\$0	\$0	\$0	\$0	\$0	\$250	\$1,600	\$0	\$0	\$0	\$0	\$0	\$1,850

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Filter Valves Replacement
Project ID:	DV120
Strategic Plan Priority	1.3
Project Description	This project consists of the replacement of the isolation valves and associated appurtenances on the eight filters at DVWTP, and is being completed in two phases. All 32 isolation valves (eight per filter) on Filter Nos. 1 to 4 were replaced in 2010. In Phase 2, all 32 isolation valves on Filter Nos. 5 to 8 will be replaced. Each isolation valve system consists of a wafer style butterfly valve with a pneumatic actuator, limit switches, and solenoid valves. Piping and valve appurtenances, such as flexible couplings or adaptors, valve gaskets and bolts, and harness rods, will also be replaced. The extent of the rehabilitation of the original pipe spools will not be determined until the cement lining and any exposed steel are inspected during the installation. A filter-aid feed control panel, located at each filter, will need to be temporarily re-located to gain access to the filter pipe spools and valves. The filter rate-of-control valve on each filter was replaced in 2004.
Justification	This project is recommended in the 2011 AMP study since the isolation valves on Filter Nos. 5 to 8 are reaching the end of their useful lives. It has been necessary to raise the plant air pressure in order to operate the actuators and valves. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Maintain plant capacity and reliability, improve operational effectiveness and flexibility, and decrease valve system maintenance.
In Service Date	Month: May Year: 2016
Total Project Cost	\$410,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10
Design	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$60
Construction	\$0	\$0	\$0	\$0	\$320	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$320
Other	\$0	\$0	\$0	\$0	\$20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20
Total	\$0	\$0	\$0	\$0	\$410	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$410

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP HVAC Replacement
Project ID:	DV146
Strategic Plan Priority	1.3
Project Description	This project was recommended in the 2011 AMP for condition assessment to better define the project scope, schedule, and cost. Key equipment to be assessed and replaced include, but are not limited to the following: two boilers and appurtenances; air handling units and exhaust fans; air cooled chiller for the Laboratory Building; associated system control and pressure valves, switches, appurtenances; etc., and digital control systems for the HVAC.
Justification	According to the 2011 AMP Update, the heating, ventilation, and air conditioning system will have reached the ends of its original useful life by FY 21/22. It is expected that more state-of-art technology and more efficient compressors and boilers, etc., will replace the equipment installed in the 2003 HVAC project. The project will continue to provide comfortable, safe and energy efficient operations and protect plant and laboratory personnel, equipment and instrumentation, SCADA system and servers against higher heating and colder temperatures throughout the year. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Increases operational reliability.
In Service Date	Month: June Year: 2022
Total Project Cost	\$750,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10	\$0	\$0	\$10
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$90	\$0	\$0	\$90
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$610	\$0	\$610
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10	\$30	\$0	\$40
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110	\$640	\$0	\$750

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Instrumentation Upgrades
Project ID:	DV106
Strategic Plan Priority	1.3
Project Description	Repair or replace/upgrade instrumentation (i.e. turbidimeters, counters, analyzers) at the Del Valle Water Treatment Plant (DVWTP). An AMP condition assessment in December 2003 confirmed the instruments to be in good condition, and in FY 07/08 about 80% of turbidimeters were replaced. However, regular/continued use of the instruments promotes steady wear and tear, and over time compromises instrumentation accuracy. This results in more frequent and rigorous calibration and associated maintenance. Due to the standard wear and tear of the instruments, as well as recognizing continuing technological advances, the expected useful life is approximately eight to ten years.
Justification	Properly functioning, reliable instrumentation is integral to water treatment process control and monitoring performance. To ensure delivery of high quality water in compliance with drinking water standards, instrumentation needs to be replaced on a regular basis. Origin: 2011 Asset Management Plan Update Report
Responsible Section	OPS Operations & Maintenance
Operating Impact	Increased operational effectiveness and assurance that instrumentation is appropriate to meet reporting requirements.
In Service Date	Month: June Year: 2016
Total Project Cost	\$380,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$350
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$30	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$380

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Interior Coating Improvements to the 4.5 MG Steel Clearwell
Project ID:	DV102
Strategic Plan Priority	1.3
Project Description	This project involves the recoating of the interior of the 4.5 MG steel clearwell at DVWTP. This project will also replace the interior and exterior impressed-current cathodic protection systems.
Justification	The interior coating has exceeded its original useful life. The 2011 bi-annual diver inspection report recommended a recoat project to minimize steel damage. The report indicated the floor is in poor condition. Approximately 25% of the floor area has pockets of blisters, of which 10% are broken. Steel corrosion accelerates when the blisters break, leading to rust nodules and steel damage. The walls have blisters covering approximately 5% of the area. Support columns have severe coating failure. The roof and supports were reported to be in good condition, but have rust staining. Origin: 2011 DVWTP 4.5 MG Clearwell Diver Inspection Report
Responsible Section	FE Facilities Engineering
Operating Impact	A new coating system will provide better corrosion protection of the steel substrate and prolong the useful life of the clearwell.
In Service Date	Month: April Year: 2013
Total Project Cost	\$1,630,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20
Design	\$0	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100
Construction	\$0	\$1,410	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,410
Other	\$0	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100
Total	\$0	\$1,630	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,630

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Rehabilitation Project
Project ID:	DV147
Strategic Plan Priority	1.3
Project Description	This is a project recommended in the 2011 AMP study for condition assessment to better define the project scope, schedule, and cost. It consolidates a number of asset replacements or rehabilitations for key treatment process facilities or equipment at DVWTP including, but not limited to: (1) Rapid mix chamber system (2) Plant air system replacement (3) Backwash pump No. 1 and backwash rate control valve replacement (4) Backwash pump No. 2 replacement (5) Washwater recovery pond system, including control gates and valves and upgrade control structures (6) Ancillary support system, including mechanical, electrical, and instrumentation, for above items
Justification	According to the 2011 AMP Update, the above listed systems have either reached or reached the end of their original useful life. Also, the control gates at drain valves on the washwater recovery system have been high maintenance, characterized by frequent replacements. 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Improve system reliability and enable Zone 7 to take advantage of the maximum treated water production capacity at DVWTP.
In Service Date	Month: April Year: 2018
Total Project Cost	\$2,670,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$30
Design	\$0	\$0	\$0	\$0	\$0	\$300	\$0	\$0	\$0	\$0	\$0	\$0	\$300
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$2,230	\$0	\$0	\$0	\$0	\$0	\$2,230
Other	\$0	\$0	\$0	\$0	\$0	\$30	\$80	\$0	\$0	\$0	\$0	\$0	\$110
Total	\$0	\$0	\$0	\$0	\$0	\$360	\$2,310	\$0	\$0	\$0	\$0	\$0	\$2,670

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Roof Replacement and Rehabilitation for 3.0 MG Clearwell
Project ID:	DV131
Strategic Plan Priority	1.3
Project Description	The project replaces the metal roof and gravity vents installed on the clearwell in 1997. The overall roof area is approximately 25,500 square foot. The metal panel is 22-gauge galvanized steel with coating for the exterior and interior. Three major structural beams, called glulams, and six cross members or purlins, for the wooden roof frame system needs to be repaired or replaced. Report also recommended cleaning/coating or replacing structural connections, including tension and beam-splice straps, and joist hangers that have corrosion damage.
Justification	It is estimated that the useful life of the roof is approximately fifteen years under severe humid operating conditions in the clearwell. In addition, the interior roof panels were coated under adverse field conditions in 1997 and large portions of the roof coating have failed. The recoating project for the 3.0 MG clearwell, completed in March 2009, repaired only about 2,600 square foot. Because of budget constraints, about 2,500 square foot was left unrepaired/uncoated. The corrosion damage begins immediately as soon as the coating fails for the unrepaired or uncoated roof areas. The wooden roof frame system installed in 1974 has reported moderate shrinkage cracks in the wood structural members. The metal connections, including bolts, for the structural members have corrosion damage. Rehabilitation or replacement should extend the life of the clearwell by another 15 to 20 years. Site evaluation of the glulam beams should be done to confirm the cracks are non-structural. Origin: 2009 DVWTP 3 MG Clearwell Structural Engineer Site Visit Report
Responsible Section	FE Facilities Engineering
Operating Impact	Improvements will maintain plant and distribution capacity and storage reliability.
In Service Date	Month: May Year: 2016
Total Project Cost	\$580,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$70	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$70
Construction	\$0	\$0	\$0	\$0	\$490	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$490
Other	\$0	\$0	\$0	\$10	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20
Total	\$0	\$0	\$0	\$80	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$580

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Treatment Facilities
Project	DVWTP Sludge Handling Improvements
Project ID:	DV114
Strategic Plan Priority	1.3
Project Description	A sludge thickening system that was designed to reduce drying time is currently in operation. However, the current measured sludge concentrations from the thickener are approximately 0.5 to 1.0 % rather than the anticipated concentration of 2.0%. The estimated construction cost is a placeholder for alternatives, including installing new sludge beds and installing a belt press/centrifuge system to handle solids during high loading periods. This project will also include the PLC improvements needed for the associated facilities. Currently, a rental mobile centrifuge is successfully in use.
Justification	This project is required to ensure the long-term reliable production of treated water at DVWTP. It will enable Zone 7 to take full advantage of the maximum treated water production capacity at DVWTP. Origin: 2011 Solids Handling at DVWTP and PPWTP Memo
Responsible Section	FE Facilities Engineering
Operating Impact	Increase operational reliability, flexibility, and effectiveness.
In Service Date	Month: June Year: 2013
Total Project Cost	\$2,590,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$2,290	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,290
Other	\$0	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100
Total	\$200	\$2,390	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,590

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Superpulsator Rehabilitation
Project ID:	DV143
Strategic Plan Priority	1.3
Project Description	Rehabilitate key components of the four Superpulsator clarifiers at DVWTP, including: incline settling plate assemblies; inlet baffles; distribution and collection pipes and supports; 30-inch process pipe and sludge piping assembly; drain valves; submerged miscellaneous metals; and surface coating for all immersed concrete. This project will also investigate surface coating all immersed concrete and core sampling of concrete for pH. Project will be phased over two years, with Superpulsator Nos. 2 and 4 rehabilitated first due to their condition.
Justification	This project is recommended in the 2011 AMP study since the major components of each Superpulsator assembly are reaching the end of their useful lives. The project will extend the service life of the Superpulsators by another 20 to 25 years. As reported in recent condition assessments, the fiberglass incline settling plates are brittle and vulnerable to failure due to ultraviolet light damage, and aluminum materials, including the wall brackets and support members for the incline plate assembly, manway covers, and ladders, are severely corroded due to aggressiveness of the ferric chloride and water pH. Origin: ESR No. DC-10-01, 2011 Asset Management Plan Update Report, 2009 Superpulsator Basin Concrete Condition Assessment Technical Memo
Responsible Section	WSE Water Supply Engineering
Operating Impact	Increase system reliability. No increase in operational cost.
In Service Date	Month: April Year: 2015
Total Project Cost	\$4,960,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50
Design	\$0	\$0	\$160	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$160
Construction	\$0	\$0	\$2,250	\$2,340	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,590
Other	\$0	\$0	\$100	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$160
Total	\$0	\$0	\$2,560	\$2,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,960

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	DVWTP Valve Replacements for 3 MG Clearwell
Project ID:	DV142
Strategic Plan Priority	1.3
Project Description	Replacement of the 36-inch clearwell inlet and outlet valves and one 8-inch drain valve for the clearwell, as well the roof mounted valve operator for each valve. Valves are butterfly type.
Justification	This project is recommended in the 2011 AMP study due to valve performance and obsolescence. The valves are no longer leak tight due to calcium carbonate deposits and deterioration and hardening of the rubber seat material and seals in the presence of chloraminated water. Replacement parts are no longer available from the valve manufacturer. Origin: ESR No. DC-09-05, 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Improve operational reliability during clearwell shutdown.
In Service Date	Month: June Year: 2013
Total Project Cost	\$170,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30
Construction	\$0	\$130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$130
Other	\$0	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10
Total	\$0	\$170	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$170

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements Expansion
Program	Water Treatment Facilities
Project	DWR Land Acquisition adjacent to PPWTP
Project ID:	PP72
Strategic Plan Priority	1.3,1.11
Project Description	The Department of Water Resources (DWR) has available land adjacent to the PPWTP site. This project is to acquire the DWR land for locating treatment facilities.
Justification	The existing plant site has limited space, which will affect the sizing and layout of future treatment facilities. This will reduce plant production reliability by decreasing the effectiveness of operations and maintenance activities. Origin: 2011 Facilities Engineering Staff Evaluation
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational and maintenance flexibility for plant improvements.
In Service Date	Month: June Year: 2013
Total Project Cost	\$570,000
Source of Funds	Fund 72 Water Rates 70% Fund 73 Connection Fees 30%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$50	\$520	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$570
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$50	\$520	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$570

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Wells
Project	El Charro Pipeline Phase 2
Project ID:	W42
Strategic Plan Priority	1.1,1.4,1.8
Project Description	This project includes planning, land/easement acquisition, design, and construction of a pipeline that loops the transmission system in the vicinity of the Chain of Lakes wells.
Justification	Phase 2 of the El Charro Pipeline is part of the Well Master Plan (WMP). This project has a different timeline than the associated wells planned as part of the WMP because it adds additional looping to Zone 7's transmission system and improves system operation by helping to mitigate stagnant water issues created by Phase 1 of the El Charro Pipeline, while reducing the frequency of flushing activities. Origin: 2003 Well Master Plan
Responsible Section	FE Facilities Engineering
Operating Impact	No operational cost impact.
In Service Date	Month: April Year: 2018
Total Project Cost	\$7,580,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120
Design	\$0	\$0	\$0	\$0	\$440	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$560
Construction	\$0	\$0	\$0	\$0	\$0	\$6,290	\$610	\$0	\$0	\$0	\$0	\$0	\$6,900
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$560	\$6,410	\$610	\$0	\$0	\$0	\$0	\$0	\$7,580

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Program Management
Project	Expansion Program Management (ISA interest costs)
Project ID:	SP14
Strategic Plan Priority	1.11
Project Description	Ongoing program management of the Water System Expansion Program, including interest paid on the Installment Sale Agreement (ISA).
Justification	Provides for better tracking of program management costs. Origin: Capital Improvement Program
Responsible Section	ASD Administrative Services Division
Operating Impact	None
In Service Date	Month: January Year: 2014
Total Project Cost	\$1,566,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$463	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$463
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$653	\$450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,103
Total	\$463	\$653	\$450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,566

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Fixed Cost of Water Entitlement
Project ID:	WP2
Strategic Plan Priority	1.1,1.8
Project Description	Payment of a portion of the Water System Revenue Bond, Delta Water Charge and Transportation Capital Cost Component for 27,619 acre-feet of additional State Water Project (SWP) entitlements, purchased via Amendments 20, 21, 23, and 25 to Zone 7's SWP contract. These costs are paid by Fund 51 and Fund 73 on a sliding scale. The sliding scale is determined by the percent of new connections remaining out of the total connections projected between 1999 and build-out. Cost shown here are Fund 73's cost only.
Justification	These purchases were required to meet Zone 7's long-term water supply needs, and thus allow Zone 7 to continue to meet its treated and untreated water customer demands. Expansion will pay declining amount of the fixed SWP costs associated with water acquisitions that have not been used. Origin: Amendments 19, 20, 21, 23, and 25 to Zone 7's water supply contract with DWR
Responsible Section	ASD Administrative Services Division
Operating Impact	Increased operation and maintenance.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$11,486,540
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28	\$28
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$5,061	\$652	\$647	\$648	\$620	\$570	\$521	\$475	\$424	\$369	\$317	\$1,155	\$11,459
Total	\$5,061	\$652	\$647	\$648	\$620	\$570	\$521	\$475	\$424	\$369	\$317	\$1,183	\$11,487

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Fourth Contractor's Share of the SBA - Sinking Fund
Project ID:	WP14
Strategic Plan Priority	1.1,1.8
Project Description	Zone 7 contracted to purchase 22,000 AFA of previously-unallocated capacity in the South Bay Aqueduct under Amendments 19 and 20 to its contract with the Department of Water Resources. In addition to the schedule payment for the 22,000 AFA, Zone 7 contributes annually into this sinking fund (beginning FY 2004/05 until FY 29/30), in order to cover contractual costs from the year 2030 to 2035. The annual contributions to the sinking fund are funded by connection fees.
Justification	This sinking fund is to cover contractual costs from the year 2030 to 2035. Origin: Amendments 19, 20, 21, 23, and 25 to Zone 7's water supply contract with DWR
Responsible Section	ASD Administrative Services Division
Operating Impact	None.
In Service Date	Month: Year: 2030
Total Project Cost	\$12,734,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$1,075	\$28	\$28	\$527	\$548	\$570	\$593	\$617	\$641	\$667	\$694	\$6,746	\$12,734
Total	\$1,075	\$28	\$28	\$527	\$548	\$570	\$593	\$617	\$641	\$667	\$694	\$6,746	\$12,734

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Fourth Contractor's Share of the SBA (capital costs)
Project ID:	WP7
Strategic Plan Priority	1.2,1.8
Project Description	Zone 7 contracted to purchase 22,000 AFA of previously-unallocated capacity in the South Bay Aqueduct under Amendments 19 and 20 to its water supply contract with DWR. This project reflects Fund 73's share of the Water System Revenue Bond and Transportation Capital Cost Component charges associated with this capacity per Amendments 19 and 20. A separate fund (Fund 51) pays for the Transportation Minimum (OMPR) Cost Component of this capacity.
Justification	Purchase of this unallocated share of the SBA was to allow Zone 7 to meet the water supply and peaking needs of new customers. Origin: Amendments 19 and 20 to Zone 7's water supply contract with DWR.
Responsible Section	ASD Administrative Services Division
Operating Impact	The purchases were required to meet Zone 7's long-term water supply needs, and thus allow Zone 7 to continue to meet its treated and untreated water customer demands.
In Service Date	Month: June Year: 2035
Total Project Cost	\$73,193,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$22,793	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$29,400	\$73,193
Total	\$22,793	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$29,400	\$73,193

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements Expansion		
Program	Groundwater Basin Management		
Project	Groundwater Management Plan/SNMP Update		
Project ID:	GW10		
Strategic Plan Priority	1.1,1.2,1.4,1.6,1.13		
Project Description	This project updates the 2005 Zone 7 Groundwater Management Plan and its incorporated 2004 Salt Management Plan to satisfy the new requirements of the State’s Recycled Water Policy. It develops plans for a salt nutrient management plan (SNMP) and constituents-of-emerging-concern (CEC) monitoring. The project also includes updating and recalibrating the Agency’s numeric groundwater model, and then using it to evaluate the sustainability of the various water supply “portfolios” described in the 2011 Water System Evaluation with respect to groundwater levels and TDS concentrations. It also reviews the effectiveness of the Mocho Groundwater Demineralization Plant to mitigate the existing salt loading and assesses the options available for mitigating projected future salt loading. Public and agency outreach is a major component of this effort.		
Justification	The updating of the GMP to include nutrient management and CEC monitoring is mandated by the Water Board’s new Recycled Water Policy (SWRCB Res No. 2009-0011). Also, the WSE only grossly estimated the potential groundwater impacts of the various water supply “portfolios” being considered for buildout conditions. A more in-depth analysis is needed to assess the areal groundwater sustainability, and to refine plans for future salt mitigating facilities. Origin: State Water Resources Control Board Recycled Water Policy, 2011 Water Supply Evaluation Report		
Responsible Section	GP Groundwater Protection		
Operating Impact	This project itself does not impact operations because it is a planning only project. However, its implementation will likely require operations and maintenance of additional groundwater demineralization plants and monitoring wells.		
In Service Date	Month: April Year: 2014		
Total Project Cost	\$1,489,000		
Source of Funds	Fund 72	Water Rates	70%
	Fund 73	Connection Fees	30%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$399	\$770	\$320	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,489
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$399	\$770	\$320	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,489

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	High-Efficiency Toilet Rebate Program
Project ID:	PR1
Strategic Plan Priority	1.6
Project Description	This program encourages the replacement of existing high-water-using toilets with high-efficiency toilets (HET) that use 1.28 gallons or less per flush in residential dwelling by offering homeowners a \$75- \$125 rebate for installation of a HET. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.
Justification	This program replaces existing high-water-using toilets with HETs. The estimated water savings from an HET is about 48 gallons/day. The toilet rebate program is a water conservation BMP that Zone 7 implements in conjunction with its retailing water agencies. Origin: Capital Improvement Program
Responsible Section	OGM Office of the General Manager
Operating Impact	Long-term water saving and less reliance on potable water supplies.
In Service Date	Month: June Year: 2018
Total Project Cost	\$554,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$374	\$30	\$30	\$30	\$30	\$30	\$30	\$0	\$0	\$0	\$0	\$0	\$554
Total	\$374	\$30	\$30	\$30	\$30	\$30	\$30	\$0	\$0	\$0	\$0	\$0	\$554

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	High-Efficiency Washing Machine Rebate Program
Project ID:	PR3
Strategic Plan Priority	1.6
Project Description	This program encourages the purchase and installation of high-efficiency clothes washers by offering water customers a \$75 water rebate. Regulations require all washers to be water and energy-efficient. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.
Justification	Studies show that approximately 20% of a household's water is used by washing machines. High-efficiency washing machines use about 40% less water per load. This could lead to an annual water savings of approximately 5,100 gallons per machine. Origin: Capital Improvement Program
Responsible Section	OGM Office of the General Manager
Operating Impact	Long-term water saving and less reliance on potable water supplies.
In Service Date	Month: July Year: 2022
Total Project Cost	\$1,378,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$648	\$90	\$100	\$100	\$90	\$70	\$80	\$60	\$60	\$40	\$40	\$0	\$1,378
Total	\$648	\$90	\$100	\$100	\$90	\$70	\$80	\$60	\$60	\$40	\$40	\$0	\$1,378

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Supply & Conveyance
Project	Hopyard Wellfield Pipeline – Connection with Hopyard Well No. 9
Project ID:	DS51
Strategic Plan Priority	1.1,1.3,1.8,1.12
Project Description	Installation of approximately 1,300 feet of pipeline between Hopyard Well No. 6 and the Hopyard Well No. 9 tie-in with the Mocho Pipeline. The alignment will follow the abandoned 12-inch diameter cast iron pipe installed by Camp Parks as part of the original wellfield improvements and would be within Zone 7's existing waterline easement. The method of installation is "slip lining," which is pulling new pipe segments through the abandoned pipeline. The diameter of the new pipe would be approximately 8 inches.
Justification	This project allows Hopyard Well No. 9 to be operated as needed to meet peak demands at the west end of the transmission system (Pleasanton turnouts Nos. 2 and 4). Currently, Hopyard Well No. 6 can be used, but typically results in producing more water than needed, delivering Pleasanton residences unblended well water resulting in customer complaints. Hopyard Well No. 9 does not have chemical injection on-site. Chemical addition is needed to maintain chloramine residual in Pleasanton's distribution system. By installing the new pipeline and additional chemical injection points, Hopyard Well No. 9 could be operated independently of Hopyard Well No. 6. The project would result in increased use of Hopyard Well No. 9, making it more reliable and dependable when needed. The project will also result in more flexibility to blend groundwater with surface water for deliveries to Pleasanton turnouts Nos. 2 and 4. Origin: 2011 Hopyard Wellfield Pipeline Project Well Team Memo
Responsible Section	FE Facilities Engineering
Operating Impact	Increased reliability for meeting peak summer demands, better ability to meet water quality goals and more reliable operation of Hopyard Well No. 9.
In Service Date	Month: June Year: 2016
Total Project Cost	\$230,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10
Design	\$0	\$0	\$0	\$0	\$20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20
Construction	\$0	\$0	\$0	\$0	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$230	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$230

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Regulatory Compliance Monitoring
Project	Laboratory Equipment Replacement
Project ID:	LAB2
Strategic Plan Priority	1.1,1.2
Project Description	Replacement of various monitoring and analytical laboratory equipment. Examples of major equipment to be replaced include, but are not limited to: HP 5890 GC with Hall ECD/PID detectors, autosampler and data acquisition system; PE 5100 PC AA with flame and graphite furnace with autosampler and data acquisition system and Varian Saturn GC/MS with dual autosampler and data acquisition system.
Justification	This program replaces existing laboratory equipment that has an average service life of ten years. This equipment is required for regulatory compliance monitoring and groundwater water quality management. Origin: Capital Improvement Program
Responsible Section	LAB Laboratory
Operating Impact	Procures equipment required to meet regulatory compliance.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$6,296,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$536	\$170	\$160	\$120	\$130	\$130	\$130	\$140	\$150	\$160	\$160	\$4,310	\$6,296
Total	\$536	\$170	\$160	\$120	\$130	\$130	\$130	\$140	\$150	\$160	\$160	\$4,310	\$6,296

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements Expansion		
Program	Water Supply & Conveyance		
Project	Lakes H, I and Cope Facility Planning		
Project ID:	COL13		
Strategic Plan Priority	1.6,1.1,2.2,2.4,2.7		
Project Description	This project will plan the near-term operations and facilities necessary to integrate Lakes H, I, and Cope into Zone 7’s water supply system, Zone 7’s regional flood protection system, and into various general plans, specific plans, on-going construction, or other activities in the Livermore-Amador Valley.		
Justification	Zone 7 already owns Lakes I and Cope, and anticipates receiving Lake H in October 2014 when Hanson’s lease expires with Pleasanton Gravel Company. These lakes can be used in the near-term for water management purposes, which will allow Zone 7 to reduce evaporative losses and implement mitigative measures for salt loading in the Livermore Valley Groundwater Basin, and enhance atrificial recharge and flood protection activities. These near-term activities are especially vital in light of the current crisis in the Sacramento-San Joaquin Delta. Origin: 2006 Stream Management Master Plan, 2011 Water Supply Evaluation Report		
Responsible Section	IP Integrated Planning		
Operating Impact	Enhances Zone 7’s ability to manage water.		
In Service Date	Month: June Year: 2013		
Total Project Cost	\$310,000		
Source of Funds	Fund 50	Flood Control/General Fund	22%
	Fund 72	Water Rates	15%
	Fund 73	Connection Fees	35%
	Fund 76	Flood Protection and Special Drainage Area	28%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$155	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$155
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$155	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$155

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Supply & Conveyance
Project	Maximize Yield from Existing Contract with BBID Study
Project ID:	WP25
Strategic Plan Priority	1.1,1.5,1.8
Project Description	Zone 7 plans to work with Byron Bethany Irrigation District (BBID) to complete a study that will help determine whether the minimum yield within Zone 7's existing contract with BBID can be modified, potentially adding 3,000 acre-feet (AF) of additional water supply during dry years. The costs reflect staff time to work with BBID to complete the necessary analysis to support increasing the minimum yield from 2,000 to 5,000 AF.
Justification	Approximately 80% of Zone 7's existing water supply is Table A water purchased from the State Water Project (SWP); however, the reliability of the SWP is subject to a very uncertain future due to legal and environmental constraints in the Sacramento-San Joaquin Delta. In response to this challenge, Zone 7 completed the 2011 Water Supply Evaluation. Based on analysis completed as part of this evaluation, Zone 7 staff recommended this study to improve near-term reliability. Origin: 2011 Water Supply Evaluation Report
Responsible Section	IP Integrated Planning
Operating Impact	None.
In Service Date	Month: December Year: 2013
Total Project Cost	\$100,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Groundwater Basin Management
Project	MGDP RO Membrane Replacement
Project ID:	W43
Strategic Plan Priority	1.3
Project Description	This project consists of the replacement of the reverse osmosis membranes (RO) at the Mocho Groundwater Demineralization Plant. After several years of operation, membranes reach their useful lives and need to be replaced at regular intervals.
Justification	As recommended in the 2011 AMP Update Report study, the replacement of these membranes should be scheduled every five years, based on the useful life estimate, in order to maintain effective plant operation. Timing of membrane replacements would be adjusted based on actual performance. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Increase operating reliability and effectiveness.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$4,680,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10	\$0	\$70	\$80
Construction	\$0	\$0	\$0	\$0	\$610	\$0	\$0	\$0	\$0	\$740	\$0	\$3,240	\$4,590
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$620	\$0	\$0	\$0	\$0	\$750	\$0	\$3,310	\$4,680

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	Minor Renewal/Replacement Projects
Project ID:	DS36
Strategic Plan Priority	1.3
Project Description	Replacement of assets, which individually, typically cost less than \$50K and require some engineering support.
Justification	Ongoing maintenance associated with the reliable supply of high-quality water. Origin: Capital Improvement Program
Responsible Section	OPS Operations & Maintenance
Operating Impact	System operational reliability.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$10,170,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$260	\$270	\$280	\$290	\$300	\$320	\$330	\$340	\$360	\$370	\$7,050	\$10,170
Total	\$0	\$260	\$270	\$280	\$290	\$300	\$320	\$330	\$340	\$360	\$370	\$7,050	\$10,170

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Wells
Project	Mocho 2 Well Improvements/Rehabilitation
Project ID:	W44
Strategic Plan Priority	1.3
Project Description	Pull production pump, clean and inspect well, rehabilitate well screen and filter pack, install water level monitoring equipment, and test well performance.
Justification	Mocho 2 was constructed in 1964 and has not been redeveloped or rehabilitated since that time. Specific Capacity was last tested in 1995. However, the pump was replaced and the casing was inspected in 2005. The continuous water level sensing probe is no longer recording accurate water levels from which well performance can be determined. This project will: re-inspect the condition of the 48 year-old casing for signs of corrosion and estimation of remaining useful life for the Asset Management Program; remove bacterial encrustation on the well screen; attempt to restore the well productivity to a level that is practically and economically feasible; replace the water level measuring equipment with a new system that is more reliable; and test the well's post-rehab specific capacity to use as a baseline for future performance monitoring. Origin: 2011 Mocho 2 Rehabilitation Project Well Team Memo
Responsible Section	FE Facilities Engineering
Operating Impact	Increases operational service life of the facility, and postpones the need for replacement.
In Service Date	Month: May Year: 2015
Total Project Cost	\$200,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$180	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$180
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Wells
Project	Mocho Well 2 - VFD Retrofit
Project ID:	W41
Strategic Plan Priority	1.12
Project Description	Retrofit Mocho Demineralization Well 2 with a variable frequency drive (VFD) to reduce excess bypass flow, thereby improving delivered water quality (hardness) and increasing operational flexibility because significant bypass inefficiency occurs with the well in operation [Mocho 2 is a leading candidate for a retrofit.] This project will include constructing a new building for housing and replacing the motor control center (MCC).
Justification	Excess bypass flow results in a decrease of delivered water quality (hardness). With the addition of a VFD, treatment trains and well capacity can be better matched. Significant inefficiencies from an excess bypass standpoint occur at Mocho 2, which can be rectified with a VFD. This project does not require a significant shutdown of the well; however, this project can be completed concurrently with the Mocho 2 Well Rehabilitation project. Origin: 2011 Mocho Well 2 - VFD Retrofit Well Team Memo
Responsible Section	FE Facilities Engineering
Operating Impact	Increases operational flexibility and improves delivered water quality.
In Service Date	Month: May Year: 2013
Total Project Cost	\$330,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10
Design	\$0	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30
Construction	\$0	\$180	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$180
Other	\$0	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110
Total	\$0	\$330	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$330

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Groundwater Basin Management
Project	Monitoring Well Replacements & Abandonments
Project ID:	GW4
Strategic Plan Priority	1.4
Project Description	This project provides for, on an as-needed basis, the replacement of old and damaged monitoring wells which are currently in Zone 7's monitoring network. In addition, it provides for the relocation of other Zone 7-monitored wells which need to be destroyed to allow for future development of land. The replacement wells will have various completion depths depending on their location. In some cases, nested monitoring wells having multiple completion intervals may be desirable. It is estimated that up to 2 wells will need to be replaced and/or destroyed each year.
Justification	Zone 7 operates an extensive monitoring well network for the monitoring of basin-wide groundwater levels and groundwater quality. In order for Zone 7 to continue to protect and manage the groundwater basin as a viable water supply, some of these monitoring wells will need to be replaced. Origin: Capital Improvement Program
Responsible Section	GP Groundwater Protection
Operating Impact	Facilitate better monitoring of Zone 7's conjunctive use of the groundwater basin.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$2,443,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$40	\$0	\$40	\$0	\$40	\$0	\$40	\$460	\$620
Design	\$0	\$0	\$0	\$0	\$10	\$0	\$10	\$0	\$10	\$0	\$10	\$230	\$270
Construction	\$553	\$0	\$0	\$0	\$70	\$0	\$80	\$0	\$80	\$0	\$90	\$680	\$1,553
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$553	\$0	\$0	\$0	\$120	\$0	\$130	\$0	\$130	\$0	\$140	\$1,370	\$2,443

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Transmission & Distribution
Project	New Water Treatment Plant Transmission Pipeline
Project ID:	DS49
Strategic Plan Priority	1.11
Project Description	This project is a transmission pipeline from the Altamont or Patterson Pass Water Treatment Plant (WTP) site to Zone 7's existing transmission system or from PPWTP to the Vasco Rate Control Station. The connection point is anticipated to be at the Altamont Pipeline - Livermore Reach near Vasco Road. Project timing is tied to the need to expand the WTP, which may occur sometime between 2020 and 2025 pending the ability to replace the ultra-filtration unit at the Patterson Pass WTP with a conventional unit that also provides additional capacity.
Justification	The existing pipeline from Patterson Pass WTP does not have the capacity to handle maximum production from an expanded treatment plant or, in the case of a future Altamont WTP, there is no existing pipeline connection. Origin: 2009 Peer Review of the Altamont Water Treatment Plant Site and Treatment Process Study, 2011 PPWTP Expansion Feasibility Evaluation (in progress)
Responsible Section	FE Facilities Engineering
Operating Impact	Provides needed water system transmission capacity and operational flexibility.
In Service Date	Month: July Year: 2025
Total Project Cost	\$36,560,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,370	\$1,250	\$0	\$0	\$2,620
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,670	\$0	\$0	\$2,670
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,320	\$15,060	\$28,380
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$930	\$1,960	\$2,890
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,370	\$3,920	\$14,250	\$17,020	\$36,560

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	PPWTP Ammonia Facility Replacement
Project ID:	PP48
Strategic Plan Priority	1.1,1.3
Project Description	Replacement of existing anhydrous ammonia system with an aqueous ammonia storage and feed system for both the conventional and membrane plants. Storage tank, feed pumps and controls, and motor control center will be housed in a metal building.
Justification	This project will replace or upgrade the last pure gaseous chemical system at PPWTP. Aqueous ammonia bulk storage will be approximately 19% ammonia and will be safer to handle and less of a hazardous threat; alternatively, the existing system could be upgraded with improved safety measures. The proposed replacement project improves safety for operations and maintenance personnel and other on-site plant personnel because the concentration levels from any off-gassing from leaks, spills, or a storage tank rupture would be significantly less than from the current system. Also, the conversion to aqueous ammonia from anhydrous ammonia is consistent with Zone 7's conversion at all of its wellfields. Origin: Capital Improvement Program
Responsible Section	FE Facilities Engineering
Operating Impact	Increase safety and decrease maintenance.
In Service Date	Month: June Year: 2014
Total Project Cost	\$1,580,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120
Design	\$0	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120
Construction	\$0	\$600	\$620	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,220
Other	\$0	\$60	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120
Total	\$0	\$900	\$680	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,580

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Treatment Facilities
Project	PPWTP Chemical Improvements Project
Project ID:	PP56
Strategic Plan Priority	1.1,1.2,1.3
Project Description	This project includes two PPWTP improvement projects, consolidated into one project for cost effectiveness and to make it more appealing to contractors. These projects were identified as high priority projects in the 2004 PPWTP CIP Prioritization Study : PPWTP Chemical Feed Piping (Conv. Plant). - The chemical feed piping may be past its useful life. PPWTP Tank Farm Improvements (Conv. Plant) – The ferric chloride tank and caustic soda tanks share the same containment area/structure. This poses a safety concern if the chemicals were to mix.
Justification	These improvements would increase reliability and safety. Origin: 2004 PPWTP CIP Prioritization Study
Responsible Section	FE Facilities Engineering
Operating Impact	Increases operational effectiveness.
In Service Date	Month: June Year: 2016
Total Project Cost	\$800,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$220	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$220
Construction	\$0	\$0	\$0	\$0	\$580	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$580
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$220	\$580	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Treatment Facilities
Project	PPWTP Clearwell Improvements
Project ID:	PP63
Strategic Plan Priority	1.1,1.3
Project Description	This project includes additional structural support to the clearwell roof, improvements to contain potential overflow and relocation of a retailer waterline from upstream to downstream of the clearwell.
Justification	A reliability assessment of the clearwell determined that structural modifications were needed to secure the roof from potential damage during seismic event. In addition, although there is a low probability, an overflow of the clearwell has a chance to reach the drainage ditch. Lessening the potential to reach the ditch will be done by re-grading away from the ditch, containment and/or dechlorination of the overflow water. Lastly, there is one retailer that receives water upstream of the clearwell. Relocating the connection downstream of the clearwell enables Zone 7 greater flexibility in providing a reliable water supply to this retailer. Origin: ESR No. PC-08-01, 1994 Water System Reliability Assessment
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational reliability and safety.
In Service Date	Month: May Year: 2017
Total Project Cost	\$640,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50
Design	\$0	\$0	\$0	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50
Construction	\$0	\$0	\$0	\$0	\$0	\$490	\$0	\$0	\$0	\$0	\$0	\$0	\$490
Other	\$0	\$0	\$0	\$0	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$50
Total	\$0	\$0	\$0	\$0	\$100	\$540	\$0	\$0	\$0	\$0	\$0	\$0	\$640

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	PPWTP Filter System Rehabilitation
Project ID:	PP64
Strategic Plan Priority	1.1,1.3
Project Description	This is a project recommended in the 2011 AMP study for condition assessment to better define the project scope, schedule, and cost. The scope of this project is to replace the existing PPWTP conventional plant filter media, valves, pumps, compressors, piping systems, and backwash system. This project is scheduled in two phases. The first phase, to be completed around 2015, will address needed equipment and coordinate the existing filter gallery operation with the proposed expansion of the dual media filters and decommissioning of the UF membrane system. Once the new filter gallery is in operation, the second phase, to be completed around 2018, will replace components of the existing filter system that are beyond their remaining useful life.
Justification	According to the 2011 Asset Management Plan Update, the existing filter system and filter backwash supply tank are reaching the end of their original useful lives. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational reliability and extension of filter systems service life.
In Service Date	Month: May Year: 2018
Total Project Cost	\$2,330,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$60
Design	\$0	\$0	\$0	\$0	\$0	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$150
Construction	\$0	\$0	\$0	\$450	\$0	\$0	\$1,520	\$0	\$0	\$0	\$0	\$0	\$1,970
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$150	\$0	\$0	\$0	\$0	\$0	\$150
Total	\$0	\$0	\$0	\$450	\$0	\$210	\$1,670	\$0	\$0	\$0	\$0	\$0	\$2,330

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	PPWTP Instrumentation Upgrades
Project ID:	PP30
Strategic Plan Priority	1.1,1.3
Project Description	Repair or replace/upgrade instrumentation (i.e. turbidimeters, counters, analyzers) at the Patterson Pass Conventional Water Treatment Plant (PPWTP). A condition assessment in December 2003 confirmed the instruments to be in good condition. However, regular/continued use of the instruments promotes steady wear and tear, and over time compromises instrumentation accuracy. This results in more frequent and rigorous calibration and associated maintenance. Due to the standard wear and tear of the instruments, as well as recognizing continuing technological advances, the expected useful life is approximately eight to ten years.
Justification	Properly functioning, reliable instrumentation is integral to water treatment process control. To ensure delivery of high quality water in compliance with drinking water standards, instrumentation needs to be replaced on a regular basis. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational efficiencies and ensure instrumentation is appropriate to meet reporting requirements.
In Service Date	Month: June Year: 2018
Total Project Cost	\$1,300,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$0	\$80	\$140
Design	\$0	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$0	\$80	\$140
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$380	\$0	\$0	\$0	\$0	\$500	\$880
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$80	\$140
Total	\$0	\$0	\$0	\$0	\$0	\$120	\$440	\$0	\$0	\$0	\$0	\$740	\$1,300

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion System-Wide Improvements
Program	Water Treatment Facilities
Project	PPWTP Maintenance Yard and Building Improvements
Project ID:	PP67
Strategic Plan Priority	1.3
Project Description	This project provides space for a maintenance yard and building that includes: 1) additional outdoor material storage and stockpile areas, 2) office building including amenities such as lunch area, showers/restrooms, locker room, and file storage, 3) storage area for equipment that needs to be stored in a climate controlled area, 4) warehouse storage and work areas for various maintenance disciplines such as electrical, SCADA/instrumentation, mechanical, general/carpentry, and mechanics, and, 5) covered areas for maintenance vehicles and various equipment.
Justification	With increased reliance on in-house staff for facility maintenance responsibilities, Zone 7 has limited space for personnel, storage of spare parts, maintenance vehicles, maintenance gear, and files. Providing adequate space for personnel will improve work efficiency. Protecting spare parts and/or maintenance vehicles extends the useful life of facilities and allows Zone 7 to have the means readily available to deal with maintenance issues as they come. Origin: ESR No. Z7-11-01, 2011 PPWTP Expansion Feasibility Evaluation
Responsible Section	FE Facilities Engineering
Operating Impact	Provides operational and maintenance efficiency.
In Service Date	Month: December Year: 2021
Total Project Cost	\$2,070,000
Source of Funds	Fund 72 Water Rates 70% Fund 73 Connection Fees 30%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$130	\$50	\$0	\$0	\$0	\$180
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$820	\$850	\$0	\$0	\$1,670
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110	\$110	\$0	\$0	\$220
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$130	\$980	\$960	\$0	\$0	\$2,070

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Treatment Facilities
Project	PPWTP Sludge Handling Improvements
Project ID:	PP43
Strategic Plan Priority	1.1,1.3
Project Description	The existing sludge beds lack the capacity needed to keep up with treatment plant production. This project will provide the additional sludge beds to meet the needed capacity, so that Zone 7 can replace the need for centrifuge rental contract services.
Justification	This project will ensure the long-term reliable production of treated water at PPWTP by having greater control over cost and operation of sludge handling. This project's scope and cost only provide sludge bed capacity for the existing PPWTP capacity of 18 MGD. Origin: 2011 Solids Handling at DVWTP and PPWTP Memo
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational reliability, flexibility and effectiveness.
In Service Date	Month: June Year: 2018
Total Project Cost	\$5,730,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$880	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$880
Design	\$0	\$0	\$0	\$0	\$820	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$820
Construction	\$0	\$0	\$0	\$0	\$0	\$3,650	\$0	\$0	\$0	\$0	\$0	\$0	\$3,650
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$380	\$0	\$0	\$0	\$0	\$0	\$380
Total	\$880	\$0	\$0	\$0	\$820	\$3,650	\$380	\$0	\$0	\$0	\$0	\$0	\$5,730

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Water Treatment Facilities
Project	PPWTP Ultrafiltration Membrane Replacement
Project ID:	PP29
Strategic Plan Priority	1.3
Project Description	Replacement of ultrafiltration membranes which have a life of approximately 5 years. As there are 5 ultrafiltration membrane racks, this project replaces the membrane modules from one rack each year.
Justification	Several mechanisms for membrane fouling exist: absorption, pore blocking, particle deposition, and concentration polarization. As the fouling process continues, the flux through the membranes decreases. To minimize the effects of fouling, the membranes require frequent cleaning and eventually, replacement. Origin: 2011 Asset Management Plan Update Report
Responsible Section	FE Facilities Engineering
Operating Impact	Increase operating reliability and effectiveness.
In Service Date	Month: June Year: 2018
Total Project Cost	\$3,960,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$10	\$10	\$10	\$10	\$10	\$10	\$0	\$0	\$0	\$0	\$0	\$60
Construction	\$1,290	\$380	\$400	\$430	\$440	\$470	\$490	\$0	\$0	\$0	\$0	\$0	\$3,900
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$1,290	\$390	\$410	\$440	\$450	\$480	\$500	\$0	\$0	\$0	\$0	\$0	\$3,960

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements Expansion		
Program	Water Supply & Conveyance		
Project	Reliability Intertie		
Project ID:	WP24		
Strategic Plan Priority	1.5		
Project Description	Zone 7 plans to investigate the feasibility of a reliability intertie with another major water agency (e.g., EBMUD). The cost estimates for this project are based on a 5.6-mile, 24-inch diameter pipeline that connects Zone 7's transmission system with another agency. The cost estimate assumes that grants and/or others fund 25% of Zone 7's share of the total project costs.		
Justification	Approximately 90% of Zone 7's long-term average water supplies are conveyed to its service via the South Bay Aqueduct (SBA); moreover, access to Zone 7's non-local storage in Semitropic and Cawelo during droughts is also dependent on the SBA. Consequently, an outage of the SBA or major disruptions of the Sacramento-San Joaquin Delta (Delta) would prevent Zone 7 from access to most of its water supplies, which could potentially have catastrophic results to Zone 7's service area. According to DWR's Delta Risk Management Study Phase 1 Report, there is a 62% chance of a major earthquake in the vicinity of the Delta Region sometime between 2003 and 2032. In such an event, Zone 7 would only have access to groundwater and a portion of supplies in Lake Del Valle; these supplies may not be able to meet indoor use depending on hydrologic conditions when such an event occurs. This project will help mitigate these risks by constructing a new intertie with another major water agency that would provide additional means of acquiring water supplies during such an event. Origin: 2011 Water Supply Evaluation Report		
Responsible Section	IP Integrated Planning		
Operating Impact	Increases reliability. Adds additional renewal/replacement costs.		
In Service Date	Month: October Year: 2021		
Total Project Cost	\$24,960,000		
Source of Funds	Fund 72	Water Rates	30%
	Fund 73	Connection Fees	70%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$730	\$1,520	\$0	\$0	\$0	\$0	\$0	\$2,250
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,180	\$1,230	\$0	\$0	\$0	\$2,410
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,930	\$15,370	\$0	\$0	\$20,300
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$730	\$1,520	\$1,180	\$6,160	\$15,370	\$0	\$0	\$24,960

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Water Treatment Facilities
Project	Safety Improvements at Water Treatment Plants
Project ID:	ESS5
Strategic Plan Priority	1.3
Project Description	Safety and emergency response to potential hazards are considered and incorporated into capital projects that are undertaken. In an effort not to overlook safety and potential hazards at existing facilities, this project is to provide a periodic review of safety features at Zone 7 facilities in relation to workplace practices and address any identified issues in order to continually meet or exceed code requirements for workplace safety. At a minimum, inventory of safety features includes assessment of emergency eye wash/shower stations, emergency SCADA and local alarm functions, confined space and fall protection set ups, chemical tank isolation valves and primary/secondary chemical containment areas, and electrical systems.
Justification	This project is to help maintain a high level of safety and responsiveness to potential emergencies in relation to hazardous materials handling and workplace/confined space practices. Origin: Capital Improvement Program
Responsible Section	FE Facilities Engineering
Operating Impact	Increased safety.
In Service Date	Month: March Year: 2019
Total Project Cost	\$70,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$70	\$0	\$0	\$0	\$0	\$70
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$70	\$0	\$0	\$0	\$0	\$70

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy Renewal/Replacement

Program Water Treatment Facilities

Project SCADA Enhancements

Project ID: WTP103

Strategic Plan Priority 1.3

Project Description After the completion of Phase I of the SCADA Improvements project (May 2004 completion), there is an ongoing need for reprogramming, installation of additional devices and upgrading of the existing devices to improve the use of SCADA system to accommodate the changes in the plant and transmission system operation. The SCADA system will also require major software and hardware upgrades about every five years.

Justification This project will enable operators to have increased control and monitoring capability of the treatment and transmission facilities using SCADA. The improvements will enhance personnel and equipment safety, and help meet regulations. The improvements will result in increased efficiency and enable operations to fine tune the treatment and transmission process.

Origin: Capital Improvement Program

Responsible Section FE Facilities Engineering

Operating Impact Improved control, monitoring and reporting through SCADA of process equipment.

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$20,282,000

Source of Funds Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$90	\$90	\$900	\$100	\$100	\$110	\$1,050	\$120	\$120	\$130	\$9,660	\$12,470
Construction	\$0	\$130	\$140	\$170	\$150	\$150	\$160	\$200	\$170	\$180	\$190	\$5,140	\$6,780
Other	\$1,032	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,032
Total	\$1,032	\$220	\$230	\$1,070	\$250	\$250	\$270	\$1,250	\$290	\$300	\$320	\$14,800	\$20,282

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Semitropic Stored Water Recovery Unit
Project ID:	WP12
Strategic Plan Priority	1.1,1.8
Project Description	Semitropic Water Storage District and Zone 7 have finalized the amendment to the Semitropic Banking Program agreement that will provide for additional recovery capacity. On February 18, 2004, the Zone 7 Board approved Zone 7's participation in its proportional share (6.5%) of the Stored Water Recovery Unit (SWRU) project. Under the proposed amendment, Zone 7's minimum recovery capacity will increase by 3,250 AFA (from 5,850 AFA to 9,100 AFA). Zone 7's cost share of the SWRU project will be about \$1.4 million (not including interest). The total cost of the SWRU project consists of about \$10.5 million for a 120-inch pipeline from Semitropic to the California Aqueduct and about \$5.5 million for new wells and conveyance enhancements to the Semitropic water system. The \$10.5 million pipeline portion of the SWRU project will be financed by 30-year bonds (5.266% bond sale interest rate), and debt service will be passed on to Zone 7 as annual payments.
Justification	Increase reliability by providing additional water supplies during drought years. Origin: 2004 Agreement between Zone 7 and Semitropic Water Storage District
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational reliability.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$1,536,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$384	\$48	\$48	\$48	\$48	\$48	\$48	\$48	\$48	\$48	\$48	\$672	\$1,536
Total	\$384	\$48	\$48	\$48	\$48	\$48	\$48	\$48	\$48	\$48	\$48	\$672	\$1,536

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	South Bay Aqueduct Enlargement Project - Sinking Fund
Project ID:	SP12
Strategic Plan Priority	1.1,1.11
Project Description	SBA improvements by the California Department of Water Resources (DWR) that will convey for Zone 7 an additional 130 cubic feet per second (cfs) through Reach 1 and 80 cfs through Reaches 2 through 4. Improvements include an expanded South Bay Pumping Plant, third (parallel) Brushy Creek Pipeline, raised linings on open channel sections and Patterson Pass Reservoir, replacement of 54-inch pipe under I-580 with 78-inch pipe (completed March 2002), application of hydraulically smoother elastomeric polyurethane lining on the Altamont Pipeline (completed March 2002), enlarged Patterson Reservoir, and new 425 acre-foot (operational storage) raw water reservoir (Dyer Reservoir) located near Dyer Road. Note that Amendment No. 24 of Zone 7's water supply contract with DWR allows for debt financing of the SBA Improvement & Enlargement Project by DWR. Annual repayment by Zone 7 began in 2006 and end in 2036. To ensure there is adequate funding available to repay debt after buildout occurs (2025), a sinking fund has been established. This sinking fund will fund the remainder of the debt from 2026 to 2036. The costs shown reflect the actual repayment of the debt plus interest for the enlargement component.
Justification	This sinking fund is necessary to cover contractual costs from 2030 to 2036, during which time there will essentially be minimal on-going water connection fee revenues available because development buildout within the Valley is expected to be nearly complete by this time. Origin: 1999 Water Supply Master Plan, 2001 Water Conveyance Study
Responsible Section	FE Facilities Engineering
Operating Impact	None.
In Service Date	Month: Year: 2030
Total Project Cost	\$30,297,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$6,528	\$166	\$170	\$1,074	\$1,117	\$1,161	\$1,208	\$1,256	\$1,306	\$1,359	\$1,413	\$13,539	\$30,297
Total	\$6,528	\$166	\$170	\$1,074	\$1,117	\$1,161	\$1,208	\$1,256	\$1,306	\$1,359	\$1,413	\$13,539	\$30,297

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	South Bay Aqueduct Enlargement Project
Project ID:	SP5
Strategic Plan Priority	1.1,1.11
Project Description	SBA improvements by the California Department of Water Resources (DWR) that will convey for Zone 7 an additional 130 cubic feet per second (cfs) through Reach 1 and 80 cfs through Reaches 2 through 4. Improvements include an expanded South Bay Pumping Plant, third (parallel) Brushy Creek Pipeline, raised linings on open channel sections and Patterson Pass Reservoir, replacement of 54-inch pipe under I-580 with 78-inch pipe (completed March 2002), application of hydraulically smoother elastomeric polyurethane lining on the Altamont Pipeline (completed March 2002), enlarged Patterson Reservoir, and new 425 acre-foot (operational storage) raw water reservoir (Dyer Reservoir) located near Dyer Road. d Note that Amendment No. 24 of Zone 7's water supply contract with DWR allows for debt financing of the SBA Improvement & Enlargement Project by DWR. Annual repayment by Zone 7 began in 2006 and end in 2036. To ensure there is adequate funding available to repay debt after buildout occurs (2025), a sinking fund has been established. This sinking fund will fund the remainder of the debt from 2026 to 2036. The costs shown reflect the actual repayment of the debt plus interest for the enlargement component.
Justification	Provides for long-term Zone 7 raw water conveyance capacity through planned service-area build-out. Origin: 1999 Water Supply Master Plan, 2001 Water Conveyance Study
Responsible Section	FE Facilities Engineering
Operating Impact	Provides for enhanced long-term water supply, reliability and flexibility.
In Service Date	Month: June Year: 2035
Total Project Cost	\$306,771,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$14,890	\$15,125	\$15,123	\$15,124	\$15,123	\$15,118	\$15,117	\$15,123	\$15,123	\$15,124	\$155,781	\$306,771
Total	\$0	\$14,890	\$15,125	\$15,123	\$15,124	\$15,123	\$15,118	\$15,117	\$15,123	\$15,123	\$15,124	\$155,781	\$306,771

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	SWP Peaking Payment (Lost Hills & Belridge Water Districts)
Project ID:	WP10
Strategic Plan Priority	1.1,1.8
Project Description	Zone 7 agreed to pay Lost Hills & Belridge Water Districts the extra SWP peaking payment when we acquired their SWP Table A amounts based on DWR billings to Kern County Water Agency (and to thus these 2 member agencies). These costs are paid by existing and future users on a sliding scale. The sliding scale is determined by the percent of new connections remaining out of the total connections projected between 1999 and build-out. Cost shown here are Fund 73's cost only.
Justification	Reliability of water supply. Origin: Amendments 20, 21 and 25 to Zone 7's water supply contract with DWR
Responsible Section	ASD Administrative Services Division
Operating Impact	Extra peaking allows Zone 7 to deliver or store additional water when available in the SWP system.
In Service Date	Month: Year: 2035
Total Project Cost	\$855,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$290	\$38	\$36	\$70	\$62	\$59	\$51	\$48	\$40	\$36	\$29	\$96	\$855
Total	\$290	\$38	\$36	\$70	\$62	\$59	\$51	\$48	\$40	\$36	\$29	\$96	\$855

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Program Management
Project	System-Wide Improvement, Renewal/Replacement Program Management
Project ID:	SP15
Strategic Plan Priority	1.3
Project Description	Ongoing program management of the SWI and R&R programs.
Justification	Provides for better tracking of program management costs. Origin: Capital Improvement Program
Responsible Section	FE Facilities Engineering
Operating Impact	None
In Service Date	Month: Year: Ongoing
Total Project Cost	\$2,050,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$50	\$50	\$60	\$60	\$60	\$80	\$70	\$70	\$70	\$70	\$1,410	\$2,050
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$50	\$50	\$60	\$60	\$60	\$80	\$70	\$70	\$70	\$70	\$1,410	\$2,050

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Transmission & Distribution
Project	System-Wide Installation of Line Valves
Project ID:	DS41
Strategic Plan Priority	1.3
Project Description	Periodic installation of approximately 30 new line valves in the transmission system, as needed, to provide a maximum of 2,000-2,500 feet separation between valves throughout the transmission system.
Justification	The installation of additional line valves will reduce service interruptions due to scheduled maintenance and other activities such as leak repairs. Origin: Capital Improvement Program
Responsible Section	FE Facilities Engineering
Operating Impact	Improve operation and reduce service interruptions.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$2,120,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$70	\$0	\$1,990	\$2,120
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$60	\$0	\$0	\$0	\$0	\$70	\$0	\$1,990	\$2,120

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Water Conservation Best Management Practices
Project ID:	PR2
Strategic Plan Priority	1.6
Project Description	This project includes the implementation of Water Conservation Best Management Practices as listed in the MOU regarding Urban Water Conservation in California, which includes financial and technical support for our retailers' conservation efforts; support and incentives to improve large landscape water efficiency; and public information and school education programs promoting water conservation. \ This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.
Justification	Reduce long-term water demands by promoting Best Management Practices that encourage wise and efficient use of water. Zone 7 studies show that per capita water use in our service area is declining, thus illustrating the effectiveness of our program. Origin: Capital Improvement Program
Responsible Section	OGM Office of the General Manager
Operating Impact	Decreased potable water demands and increase system reliability.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$600,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$20	\$20	\$30	\$30	\$20	\$20	\$20	\$20	\$20	\$20	\$380	\$600
Total	\$0	\$20	\$20	\$30	\$30	\$20	\$20	\$20	\$20	\$20	\$20	\$380	\$600

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy System-Wide Improvements

Program Water Treatment Facilities

Project **Water Quality - Ozonation at PPWTP & DVWTP**

Project ID: DV110

Strategic Plan Priority 1.1,1.12

Project Description This project consists of the design and construction of a raw water conventional ozonation process at each plant site as the recommended long-term taste and odor treatment (for existing plant capacity). The facilities at each site will include two ozone contactor basins, ozone generation and feed system housed in a building, liquid oxygen storage and feed system, chlorine contactor for CT compliance, supporting chemical feed systems for raw water pH control and bromate control, significant yard piping and modifications to existing facilities, electrical, instrumentation, and control. The project is scheduled for completion in 2023.

Justification In addition to the other benefits of ozone (reduction of THMs and oxidizing CECs), this project will mitigate seasonal earthy-musty taste and odor from treated surface water from PPWTP and DVWTP per the Water Quality Management Program Implementation Plan. A draft report evaluating two ozone-based processes was completed in 2009. This report also included the results and findings from six-months of pilot testing from May to October 2008 for conventional ozone and ozone with hydrogen peroxide (peroxone). That report recommended conventional ozonation on the raw water for both existing plants to meet our taste and odor treatment goals. Project represents Zone 7's commitment to optimize delivered water quality, including esthetic qualities such as taste and odor, and most likely, will eliminate taste and odor complaints and thereby improve public perception of Zone 7's water quality.

Origin: 2003 Water Quality Management Program, 2009 Ozone and Peroxone Evaluation Report

Responsible Section FE Facilities Engineering

Operating Impact Increase operations and maintenance costs, including the addition of one new operator, mechanic, electrician, and instrument technician to cover both sites. Operational impacts include improved water quality, lower primary coagulant dosage, and less sludge production and handling.

In Service Date **Month:** June **Year:** 2023

Total Project Cost \$54,350,000

Source of Funds (\$1,000) Fund 72 Water Rates 100%

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,960	\$2,770	\$0	\$0	\$5,730
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,240	\$24,020	\$10,610	\$43,870
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300	\$1,690	\$1,760	\$1,000	\$4,750
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,260	\$13,700	\$25,780	\$11,610	\$54,350

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements Expansion
Program	Water Treatment Facilities
Project	Water Quality Management Program
Project ID:	PR9
Strategic Plan Priority	1.2,1.12
Project Description	A comprehensive water quality management program and implementation plan (Water Quality Management Plan) was completed in April 2003. This plan addressed water quality concerns of our customers and the community. It has led to the Board adoption of policies that address specific water quality goals and objectives that meet internal (Zone 7) and customer and end user needs. This ongoing program is one component of Zone 7's overall master planning process. It helps guide both our water system operations and our CIP over the next 20 years.
Justification	Assists the Zone 7 Board of Directors in determining policies to effectively manage treated and untreated water quality issues. Provides guidance to Zone 7's water operations, helps establish capital facilities needs and design guidelines, and incorporates a funding strategy. Origin: 2003 Water Quality Management Program
Responsible Section	WQ Water Quality
Operating Impact	Provides clear operational guidelines. Potential additional treatment and blending facilities to operate.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$1,380,000
Source of Funds	Fund 72 Water Rates 70% Fund 73 Connection Fees 30%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$40	\$20	\$40	\$20	\$50	\$20	\$50	\$20	\$60	\$20	\$1,040	\$1,380
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$40	\$20	\$40	\$20	\$50	\$20	\$50	\$20	\$60	\$20	\$1,040	\$1,380

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Water Supply Replacement
Project ID:	WP16
Strategic Plan Priority	1.1,1.4,1.6,1.8
Project Description	An extensive list of potential replacement water supplies, including costs, were identified as part of the 2011 Water Supply Evaluation (2011 WSE) to replace the water supply lost due to a projected reduction in the long-term average yield of State Water Project (SWP) Table A Amounts. Pending the completion of additional analysis and studies recommended in the 2011 WSE, this project could include, but is not limited to, any combination of operational improvements, water conservation, recycled water, desalination, or water transfers.
Justification	Most of the water transfers acquired by Zone 7 since 1999 for future development were Table A water associated with the SWP. The long-term average yield of Table A water used to be 75%; however, the projected yield is now only 60% (DWR's 2009 Reliability Report) due to legal and environmental constraints in the Sacramento-San Joaquin Delta. This project will pay for the additional supply necessary to replace the lost yield associated with the reduced reliability of the SWP. Origin: 2011 Water Supply Evaluation Report
Responsible Section	IP Integrated Planning
Operating Impact	Ensures a reliable supply of high quality water.
In Service Date	Month: June Year: 2025
Total Project Cost	\$78,570,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$1,580	\$1,640	\$1,710	\$1,780	\$7,120	\$7,400	\$16,540	\$37,770
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40,800	\$40,800
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$1,580	\$1,640	\$1,710	\$1,780	\$7,120	\$7,400	\$57,340	\$78,570

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements Expansion
Program	Water Supply & Conveyance
Project	Water System Master Plan
Project ID:	WP20
Strategic Plan Priority	1.1,1.4,1.6,1.8,1.11,1.13
Project Description	The purpose of this update is to develop and recommend a roadmap of major water supply acquisitions and facility improvements necessary to meet water demands through buildout, per adopted general plans in the Livermore-Amador Valley. This “blueprint” for major water system infrastructure will incorporate all of the results of the additional studies recommended as part of the 2011 Water Supply Evaluation (2011 WSE), actual data to support the success of implementing water conservation targets established as part of the Water Conservation Act of 2009, and any revisions made to Zone 7’s reliability policy.
Justification	In response to reduced reliability of the State Water Project, Zone 7 staff completed the 2011 WSE to help identify near- and long-term risks of water supply shortages, low-cost, zero impact actions that will minimize near-term risks of those shortage, and additional studies necessary to assist in refining yields and costs of various water supply options. Due to near-term uncertainty, the 2011 WSE did not layout the roadmap of investments necessary to meet water demands through buildout; however, a Water System Master Plan will layout this roadmap, which is required to help define priorities, funding sources, and facilitate required CEQA analysis. Origin: 2011 Water Supply Evaluation Report
Responsible Section	IP Integrated Planning
Operating Impact	Adds additional costs to acquire water supplies and construct infrastructure.
In Service Date	Month: June Year: 2015
Total Project Cost	\$820,000
Source of Funds	Fund 72 Water Rates 40% Fund 73 Connection Fees 60%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$100	\$350	\$370	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$820
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$100	\$350	\$370	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$820

Note: ‘Future’ means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Treatment Facilities
Project	Water Treatment Plant Expansion
Project ID:	WTP106
Strategic Plan Priority	1.11
Project Description	This project is a water treatment plant expansion of up to 12-16 million gallon per day (MGD) that will be constructed at either the Altamont site near Dyer Reservoir or the Patterson Pass WTP. Project timing is tied to the ability to replace the ultra-filtration (UF) Plant at the Patterson Pass WTP with a conventional unit. The replacement of the UF plant will provide additional capacity, delaying the need for the water treatment plant expansion by a couple of years to 2025.
Justification	Analysis completed as part of the 2011 Water System Evaluation indicates that additional water treatment plant capacity is required to meet projected maximum day demands. In addition, the UF Plant at Patterson Pass WTP is a temporary plant that was constructed to meet near-term shortages and therefore, the production from this plant eventually needs to be replaced. The currently projected need for new treatment capacity, which includes replacement of the UF plant is anticipated to be between 20 to 24 mgd. Origin: 2009 Peer Review of the Altamont Water Treatment Plant Site and Treatment Process Study, 2011 PPWTP Expansion Feasibility Evaluation (in progress), 2011 Water Supply Evaluation
Responsible Section	FE Facilities Engineering
Operating Impact	Increases production and delivery capacity and improves operational flexibility.
In Service Date	Month: June Year: 2025
Total Project Cost	\$176,340,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,920	\$6,620	\$12,540
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,680	\$3,680
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$146,410	\$146,410
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,710	\$13,710
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,920	\$170,420	\$176,340

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Wells
Project	Well Pump, Motor and Casing Inspections
Project ID:	W35
Strategic Plan Priority	1.3
Project Description	Zone 7 currently has seven production wells. This project involves annual inspection of well pumps, motors and casing and related repairs for one well.
Justification	This project will improve reliability of production wells. Origin: Capital Improvement Program
Responsible Section	OPS Operations & Maintenance
Operating Impact	Increased operational service life of facilities thereby reducing future capital investments.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$2,400,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$110	\$0	\$120	\$0	\$130	\$0	\$140	\$1,900	\$2,400
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$110	\$0	\$120	\$0	\$130	\$0	\$140	\$1,900	\$2,400

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Renewal/Replacement
Program	Wells
Project	Wellfield Switchboard Replacement Project
Project ID:	W40
Strategic Plan Priority	1.3
Project Description	This is a project recommended in the 2011 AMP study for condition assessment to better define the project scope, schedule, and cost. This project will include all planning, design, and construction needed to replace existing switchboards at Hopyard Well 6 and Mocho Well 1.
Justification	According to the 2011 AMP Update, these switchboards will have reached the end of their original useful life around 2018. Origin: 2011 Asset Management Plan Update Report
Responsible Section	WPT Well Performance Team
Operating Impact	System reliability.
In Service Date	Month: June Year: 2018
Total Project Cost	\$1,350,000
Source of Funds	Fund 72 Water Rates 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$30	\$0	\$0	\$0	\$0	\$0	\$30
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$250	\$0	\$0	\$0	\$0	\$0	\$250
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$1,070	\$0	\$0	\$0	\$0	\$0	\$1,070
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$1,350	\$0	\$0	\$0	\$0	\$0	\$1,350

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.

Capital Improvement Project Summary Report

Strategy	Expansion
Program	Water Supply & Conveyance
Project	Westside Transmission System Improvements
Project ID:	DS52
Strategic Plan Priority	1.11
Project Description	This project involves making improvements to the west side of Zone 7's transmission system to accommodate future growth. The project could involve new pipelines, replacement pipelines and/or a pump station. The costs are based on a new 9,100-foot , 30-inch diameter pipeline. Zone 7 staff will better define the actual project through hydraulic modeling planned as part of the Water System Master Plan update.
Justification	Based on discussions with Zone 7's operational staff, the existing transmission system can maintain pressures for existing customers on peak days. Additionally, hydraulic modeling completed by Zone 7 staff indicates the west side of the existing transmission system will not maintain pressures on peak days with additional growth in water demand. However, Zone 7 staff has just completed the 2011 Water Supply Evaluation, which recommends a series of water demand reductions, including reducing unaccounted-for water, water conservation, and potentially recycled water. The ultimate mix of future water supply sources and water demand reductions could change, or even eliminate, the potential pressure issues identified by Zone 7 staff as a result of future water demand growth on the west side of the transmission system. Consequently, this project is a holding place in case additional improvements are required to maintain pressures, with future growth, on the west side of the transmission system. Origin: 2011 Water Supply Evaluation Report
Responsible Section	FE Facilities Engineering
Operating Impact	Adds additional renewal/replacement costs.
In Service Date	Month: October Year: 2017
Total Project Cost	\$7,370,000
Source of Funds	Fund 73 Connection Fees 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Future	Total
Planning	\$0	\$0	\$0	\$0	\$530	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$530
Design	\$0	\$0	\$0	\$0	\$0	\$640	\$0	\$0	\$0	\$0	\$0	\$0	\$640
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$5,950	\$0	\$0	\$0	\$0	\$0	\$5,950
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$250	\$0	\$0	\$0	\$0	\$0	\$250
Total	\$0	\$0	\$0	\$0	\$530	\$640	\$6,200	\$0	\$0	\$0	\$0	\$0	\$7,370

Note: 'Future' means all the project costs from FY 22/23 through FY 39/40, which is the planning horizon.



SECTION THREE

FLOOD PROTECTION

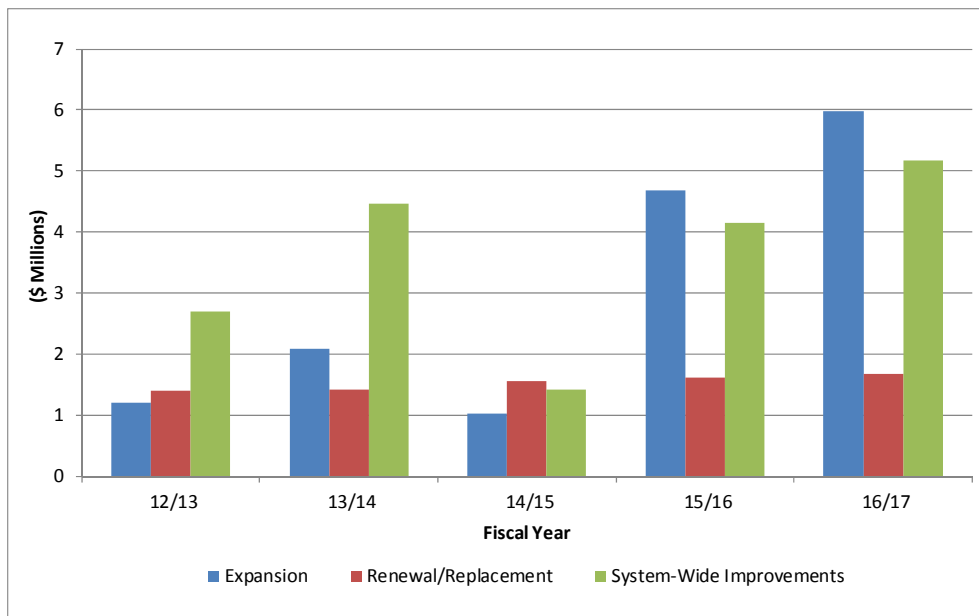


SECTION III – FLOOD PROTECTION

INTRODUCTION

Zone 7 maintains existing and constructs new flood protection and stormwater drainage facilities that enhance acceptance, management and control of stormwater runoff and drainage in the Livermore-Amador Valley. The agency conducts capital improvement activities that protect life and property from damage caused by stormwater runoff and drainage generated during rainfall events. Zone 7's capital improvements include Renewal/Replacement and repair of existing facilities to maintain the integrity of the existing flood protection system, System-Wide Improvements that integrate local stormwater channels into one regional flood protection system, and projects to accommodate additional run-off from new impervious surface areas caused by new development. Zone 7 projects \$40.5M in capital expenditures over the next five years to support these priorities. A breakdown by strategy is shown in the chart and table below.

Flood Protection System
FY 12/13 Five-Year Capital Improvement Program
Planned Appropriations by Strategy and Fiscal Year
(\$ Millions)



Strategy	12/13	13/14	14/15	15/16	16/17	Total
Expansion	1.19	2.08	1.02	4.68	5.98	14.96
Renewal/Replacement	1.39	1.43	1.56	1.62	1.68	7.68
System-Wide Improvements	2.69	4.46	1.42	4.16	5.17	17.89
Total	5.27	7.96	4.01	10.45	12.84	40.53

The purpose of this section is to present the capital improvement activities required for flood protection over the next five years (i.e., the 5-Year CIP for Flood Protection), describe available funding sources and provide a brief overview of future flood protection activities.

PROPOSED RENEWAL/REPLACEMENT, SYSTEM-WIDE IMPROVEMENTS AND EXPANSION ACTIVITIES

Zone 7 staff conducts a bi-annual review of capital improvement activities required for existing facilities. Based on this review, Zone 7 staff has identified the following capital improvement activities that will be conducted over the next five years:

- Administrative & Engineering Building: This project includes the continuing lease of a new office building that brought engineering, administrative, and operational staff together in one location; thereby, improving communications and staff productivity while conducting capital improvement activities.
- Administrative & Engineering Building – Sinking Fund: This project will cover the cost to purchase a new building after Zone 7's 15-year lease expires in FY 18/19.
- Construction and Rehabilitation of Maintenance Roads: This program restores the function and integrity of maintenance roads so that staff can safely conduct facility inspection activities.
- Sediment Removal from Existing Channels: This program implements Zone 7's sediment removal activities from existing channels throughout the system.
- Fences and Gates Installation & Replacement: This program is required to replace and repair fences and gates throughout Zone 7's existing flood protection system.
- Landscaping and Hydroseeding: This program installs landscaping and erosion control measures throughout the existing flood protection system.
- Rehabilitation of Channel Embankments: This program rehabilitates the embankments of existing channels throughout the system that are damaged during storm events.
- Asphalt Paving Facility Driveways: This program replaces existing gravel driveways throughout the system with asphalt; thereby, enhancing the life and function of all driveways.
- Construction of Concrete V-Ditches: This program replaces existing earthen V-ditches along the top of embankments with concrete V-ditches, which will improve bank stability and reduce long-term maintenance costs.
- Construction of Drain Structures: This program constructs new drain inlets, cross drain piping, and outfall structures along the top of existing embankments; thereby, improving drainage and increasing bank stability.
- Vegetation Abatement: This program removes vegetation throughout the system per fire department regulations. This activity includes tree management.
- Arroyo de la Laguna Improvement Project – Verona Reach: This project explores solutions to large-scale erosional features along a one-mile stretch of the arroyo.
- Stream Management Master Plan (SMMP) Update: This update includes the creation of a hydro/hydraulic model for the major drainages of the valley and perform a 5-year reassessment of the projects and costs proposed in the master plan.
- Development Impact Fee Update: This analysis will follow the update of the SMMP and will reevaluate the fee structure for assessing the impacts of development to the flood protection system.

- El Charro Specific Plan Improvements (R.5-2/R.5-3 - Portions): This project is a partnership with the City of Livermore for the construction of specific flood protection improvements along the Arroyo Las Positas and within the City's El Charro Specific Plan area.
- Flood Facilities – Chain of Lakes: This project sets aside funding to implement improvements within the Chain of Lakes area for the purposes of flood protection.
- Lakes H, I, and Cope Lake Facility Planning: This project assesses the facilities necessary in the near-term to facilitate the detention of flood waters in the Chain of Lakes area.
- R.1-7: Arroyo Las Positas at N. Vasco Improvements: This project allows for the final completion of this stretch of improvements to the arroyo. The project is a pilot project where Zone 7 is partnering with the City of Livermore and the developer to provide interim flood storage along with stormwater treatment within the development's greenspace.
- R.3-5: Arroyo Mocho - Stanley Reach Pilot Project: This project seeks to provide a pilot example for reconfiguring a trapezoidal channel to convey sediment more efficiently and to explore the benefits and effects of re-vegetation within the channel on conveyance, maintenance, temperature and other habitat considerations.
- R.8-3: Lower Arroyo Mocho: This project explores options for reducing flooding, enhancing habitat and fisheries while reducing sediment management issues.
- Sediment Transport Study: This study seeks to help the agency understand grain-size, movement, origin, and quantity of sediment within our flood system. The goal is to reduce future maintenance costs by designing more efficient channels and sediment capture basins.
- Steelhead and Related Studies: These studies will provide information on the potential for a species of concern to survive and breed within our stream system.

The table below presents the projected costs for Renewal and Replacement projects over the next five years.

Flood Protection Renewal/Replacement Strategy Breakdown							
		Appropriation (\$Millions)					
Program		FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	Total
Buildings & Grounds							
	Administrative & Engineering Building Lease (Flood Protection)	\$0.12	\$0.12	\$0.12	\$0.12	\$0.13	\$0.60
	Administrative and Engineering Building - Sinking Fund (Flood Protection)	\$0.08	\$0.09	\$0.09	\$0.09	\$0.10	\$0.45
Subtotal		\$0.20	\$0.20	\$0.21	\$0.22	\$0.22	\$1.05
Flood Control Facilities							
	Construction and Rehabilitation of Maintenance Roads	\$0.14	\$0.14	\$0.21	\$0.22	\$0.23	\$0.94
	District-wide F. C. Channel Desilting Program	\$0.10	\$0.10	\$0.11	\$0.11	\$0.12	\$0.54
	Fences & Gates Installation & Replacement	\$0.04	\$0.04	\$0.05	\$0.05	\$0.05	\$0.23
	Landscaping & Hydroseeding Channel Embankments	\$0.10	\$0.10	\$0.10	\$0.11	\$0.11	\$0.52
	Rehabilitation of F. C. Channel Embankments	\$0.71	\$0.73	\$0.76	\$0.79	\$0.82	\$3.81
	System-wide Construction of Drain Structures	\$0.10	\$0.11	\$0.12	\$0.12	\$0.13	\$0.58
Subtotal		\$1.19	\$1.22	\$1.35	\$1.40	\$1.46	\$6.62
Program Management							
	Capital Improvement Program Management	\$0.001	\$0.001	\$0.001	\$0.002	\$0.001	\$0.01
Subtotal		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01
Total		\$1.39	\$1.43	\$1.56	\$1.62	\$1.68	\$7.68

The table below presents the projected costs for System-Wide Improvement projects over the next five years.

Flood Protection System-Wide Improvements Strategy Breakdown						
Program	Appropriation (\$Millions)					Total
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	16/17	
Flood Control Facilities						
Arroyo de la Laguna Improvement Project - Verona Reach	\$0.20	\$1.53	\$0.05	\$0.03	\$0.00	\$1.80
Development Impact Fee Update	\$0.09	\$0.00	\$0.00	\$0.00	\$0.00	\$0.09
El Charro Specific Plan (R.5-2/R5-3 - portions)	\$0.23	\$0.00	\$0.00	\$0.00	\$0.00	\$0.23
Flood Facilities - Chain of Lakes	\$0.02	\$0.92	\$0.58	\$3.34	\$4.29	\$9.14
R. 1-7: Arroyo Las Positas at N. Vasco Improvements	\$1.01	\$1.34	\$0.00	\$0.00	\$0.00	\$2.35
R.3-5: Arroyo Mocho - Stanley Reach Pilot Project	\$0.30	\$0.04	\$0.03	\$0.03	\$0.03	\$0.42
R.8-3: Lower Arroyo Mocho	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sediment Transport Study	\$0.04	\$0.02	\$0.02	\$0.00	\$0.00	\$0.08
Stream Management Master Plan Update	\$0.22	\$0.05	\$0.00	\$0.00	\$0.07	\$0.34
System-wide Asphalt Paving F.C. Facility Driveway	\$0.05	\$0.05	\$0.10	\$0.10	\$0.10	\$0.40
System-wide Construction of Concrete V-ditches	\$0.05	\$0.05	\$0.09	\$0.09	\$0.09	\$0.37
System-wide Vegetation Abatement	\$0.39	\$0.47	\$0.56	\$0.58	\$0.60	\$2.60
Subtotal	\$2.61	\$4.46	\$1.42	\$4.16	\$5.17	\$17.81
Water Supply & Conveyance						
Lakes H, I and Cope Facility Planning	\$0.078	\$0.000	\$0.000	\$0.000	\$0.000	\$0.08
Subtotal	\$0.08	\$0.00	\$0.00	\$0.00	\$0.00	\$0.08
Total	\$2.69	\$4.46	\$1.42	\$4.16	\$5.17	\$17.89

The table below presents the projected costs for Expansion projects over the next five years.

Flood Protection Expansion Strategy Breakdown						
Program	Appropriation (\$Millions)					
	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	Total
Buildings & Grounds						
Administrative & Engineering Building Lease (Flood Protection)	\$0.12	\$0.12	\$0.12	\$0.12	\$0.13	\$0.60
Administrative and Engineering Building - Sinking Fund (Flood Protection)	\$0.08	\$0.09	\$0.09	\$0.09	\$0.10	\$0.45
Subtotal	\$0.20	\$0.20	\$0.21	\$0.22	\$0.22	\$1.05
Flood Control Facilities						
Arroyo de la Laguna Improvement Project - Verona Reach	\$0.04	\$0.31	\$0.01	\$0.01	\$0.00	\$0.37
Development Impact Fee Update	\$0.07	\$0.00	\$0.00	\$0.00	\$0.00	\$0.07
El Charro Specific Plan (R.5-2/R5-3 - portions)	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.31
Flood Facilities - Chain of Lakes	\$0.03	\$1.21	\$0.76	\$4.42	\$5.68	\$12.11
R. 1-7: Arroyo Las Positas at N. Vasco Improvements	\$0.21	\$0.27	\$0.00	\$0.00	\$0.00	\$0.48
R.3-5: Arroyo Mocho - Stanley Reach Pilot Project	\$0.06	\$0.01	\$0.01	\$0.01	\$0.01	\$0.09
R.8-3: Lower Arroyo Mocho	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sediment Transport Study	\$0.03	\$0.01	\$0.01	\$0.00	\$0.00	\$0.05
Steelhead and Related Studies	\$0.02	\$0.02	\$0.02	\$0.03	\$0.03	\$0.11
Stream Management Master Plan Update	\$0.15	\$0.03	\$0.00	\$0.00	\$0.05	\$0.23
Subtotal	\$0.91	\$1.88	\$0.81	\$4.46	\$5.76	\$13.82
Program Management						
Capital Improvement Program Management	\$0.00	\$0.00	\$0.00	\$0.01	\$0.00	\$0.02
Subtotal	\$0.87	\$1.57	\$0.80	\$4.46	\$5.76	\$0.02
Water Supply & Conveyance						
Lakes H, I and Cope Facility Planning	\$0.08	\$0.00	\$0.00	\$0.00	\$0.00	\$0.08
Subtotal	\$0.55	\$0.35	\$0.04	\$0.04	\$0.08	\$0.08
Total	\$1.19	\$2.08	\$1.03	\$4.68	\$5.98	\$14.95

Additional information on each project is provided in Project Summaries at the end of this section.

FUNDING ANALYSIS

Zone 7 currently uses two sources of revenue to fund flood protection activities. The first source is property taxes and the second source is development impact fees. Revenue from property taxes is placed in Fund 50, while revenue from development impact fees is placed in Fund 76; each is discussed in more detail below.

Fund 50 – Flood Protection General Fund

Alameda County provides Zone 7 with a portion of the taxes levied based on one percent (1%) of the assessed value of all properties within Zone 7's service area. The revenues that Zone 7 receives from Alameda County are placed into Fund 50, and can be used to support both operation and maintenance (O&M) activities and the construction of new facilities. Zone 7 will sometimes supplement these revenues with state and federal grant funding. The table below presents the projected funding for Fund 50 over the next five years.

Table 3-1 Fund 50 (Property Taxes) - NEAR-TERM FUNDING (\$ Millions)

Fiscal year (FY)		FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
1	Beginning. Available Fund Balance	12.92	12.71	10.79	11.87	10.34
2	Revenue					
3	Property Tax Revenue	5.73	5.78	5.90	6.02	6.14
4	Other Revenue	0.13	0.25	0.32	0.47	0.41
	Total Revenue	5.86	6.04	6.22	6.49	6.55
5	Expenditures					
6	Capital Expenditures	3.98	5.80	2.89	5.68	6.76
7	Operating Expenses	2.00	2.08	2.16	2.25	2.34
8	Building Sinking Fund	0.08	0.09	0.09	0.09	0.10
9	Total Expenditures	6.07	7.96	5.14	8.03	9.19
10	End of Fiscal Year Available Fund Balance	12.71	10.79	11.87	10.34	7.69

Key Assumptions

- Line 1 Beginning fund balance excludes prior year encumbrance carryovers.
- Line 3 Since taxes are based on the assessed property value, which fluctuates over time, Zone 7 has based the contribution on historic experience. A three percent annual increase is conservatively estimated to account for growth in assessed valuation.
- Line 4 Assumes 1% interest income earned on cash and sinking fund balances, increasing to 4% by FY 15/16.
- Line 6 Expenditures are shown in actual dollars (current dollars adjusted by a 4% annual inflation factor).

Fund 76 – Flood Protection and Storm Water Drainage Development Impact Fee

\$15 million of the total flood protection projects are funded by Fund 76. Fund 76 - Flood Protection and Storm Water Drainage Development Impact Fee Fund holds all fees collected from future development in support of Zone 7's flood protection and stormwater drainage activities.

The Zone 7 Board approved the Stream Management Master Plan (SMMP) in August 2006. Subsequently, Zone 7 adopted Ordinance 2009-01 to establish the new development impact fee (DIF) necessary to support SMMP projects within the Alameda Creek Watershed. This study recommended a fee of \$1.423 per square-foot of impervious area created by new development. The calculation included \$11,981,769 as the starting balance (to be transferred from existing SDA funds). This fee was subsequently capped at \$1.10. Over the next few years, Zone 7 will undergo updates to the SMMP and DIF studies. These updates will reassess the projects and costs proposed in SMMP and also reevaluate the current fee structure.

The SMMP and DIF identified \$222 million in flood protection projects to be funded by this fund. Incorporating the projected expenditures planned within this CIP, Zone 7 projects a fund balance of \$14.5 million in FY 16/17. This fund balance, along with other funding sources (to be examined in the DIF and SMMP updates) will be used to fund future flood protection and stormwater drainage projects identified in the SMMP.

PROJECT SUMMARIES

The following project summaries are presented to provide additional information on each project.

Project Title	Page No.
Administrative & Engineering Building	3-9
Administrative & Engineering Building – Sinking Fund	3-10
Arroyo de la Laguna Improvement Project - Verona Reach	3-11
Capital Improvement Program Management	3-12
Construction and Rehabilitation of Maintenance Roads	3-13
Development Impact Fee Update	3-14
District-wide F. C. Channel Desilting Program	3-15
El Charro Specific Plan (R.5-2/R5-3 – portions)	3-16
Fences & Gates Installation and Repair	3-17
Flood Facilities - Chain of Lakes	3-18
Lakes H, I and Cope Facility Planning	3-19
Landscaping & Hydroseeding Channel Embankments	3-20
R. 1-7: Arroyo Las Positas at N. Vasco Improvements	3-21
R.3-5: Arroyo Mocho - Stanley Reach Pilot Project	3-22
Rehabilitation of F.C. Channel Embankments	3-23
Sediment Transport Study	3-24
Steelhead and Related Studies	3-25
Stream Management Master Plan Update	3-26
System-wide Asphalt Paving F.C. Facility Driveway	3-27
System-wide Construction of Concrete V-ditches	3-28
System-wide Construction of Drain Structures	3-29
System-wide Vegetation Abatement	3-30

Capital Improvement Project Summary Report

Strategy Expansion
Renewal/Replacement

Program Buildings & Grounds

Project **Administrative & Engineering Building Lease (Flood Protection)**

Project ID: SP17

Strategic Planning Priority 1.3

Project Description A new office building has been constructed for administrative and engineering staff. The new building has a larger Board Room for public meetings. It is located closer to operations (treatment plants), and is more centrally located for employees and Valley residents. The cost is based on "Build to Suit" option and includes lease payments. In addition to the scheduled lease payment for the new building, an annual contribution is made to a sinking fund in order to cover the purchase cost of the building after the lease payments have been completed in FY 2018/19.

Justification Engineering, administrative and operations staff were at different locations. This project has brought administrative and engineering staff together and will bring both closer to operations. This project also accommodates future expansion. It will reduce overall agency travel times, improve communications and staff productivity.

Origin: Capital Improvement Program

Responsible Section ASD Administrative Services Division

Operating Impact Provides for more efficient and effective operations of administrative and engineering functions. Provides for secure Emergency Operations Center (EOC), as the new building meets strictest building.

In Service Date **Month:** June **Year:** 2019

Total Project Cost \$3,076,000

Source of Funds Fund 50 Flood Control/General Fund 50%
Fund 76 Flood Protection and Special Drainage Area 50%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$1,323	\$231	\$236	\$241	\$245	\$250	\$0	\$3,076
Total	\$1,323	\$231	\$236	\$241	\$245	\$250	\$0	\$3,076

Capital Improvement Project Summary Report

Strategy Expansion
Renewal/Replacement

Program Buildings & Grounds

Project **Administrative and Engineering Building - Sinking Fund (Flood Protection)**

Project ID: SP16

Strategic Planning Priority 1.3

Project Description In addition to the scheduled lease payment for the new building, \$696,000 plus interest per year will be contributed to this sinking fund in order to cover the purchase cost of the building after the lease payments have been completed in FY 2018/19.

Justification This sinking fund will cover the cost to purchase the new Administrative & Engineering Building after Zone 7's 15 year lease is completed.

Origin: Capital Improvement Program

Responsible Section ASD Administrative Services Division

Operating Impact None.

In Service Date **Month:** June **Year:** 2019

Total Project Cost \$1,472,000

Source of Funds Fund 50 Flood Control/General Fund 50%
Fund 76 Flood Protection and Special Drainage Area 50%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$180	\$168	\$172	\$181	\$186	\$190	\$0	\$1,472
Total	\$180	\$168	\$172	\$181	\$186	\$190	\$0	\$1,472

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements Expansion
Program	Flood Control Facilities
Project	Arroyo de la Laguna Improvement Project - Verona Reach
Project ID:	SDA22

Strategic Planning Priority 2.3,2.7

Project Description This reach of the Arroyo de la Laguna has been identified as a pilot project area where excessive erosion and sedimentation has created bank instability. In an effort to protect the exit of the Valley's stormwater, Zone 7 partnered with Urban Creek Council (UCC) and the local landowners in a design grant that resulted in 30% design concepts. This project helps Zone 7 meet some of the more stringent environmental and habitat requirements of regulatory agencies, and addresses concerns of water quality issues to downstream communities. This pilot project seeks to restore a proper stream function and sediment transport through the reach. Zone 7 intends to partner with local landowners and other interested stakeholders to seek outside funding for implementation. This phase of the project will explore construction and maintenance alternatives. Because the land is privately owned, long-term maintenance will be borne by others other than Zone 7. Additionally, the Alameda County Resource Conservation District and the Natural Resources Conservation Service have received federal earmark funding for a project immediately downstream of the Verona Reach. Zone 7 has contributed research and design data from the Verona Reach to assist them in their design and will monitor the success of their project for lessons to use in the Verona Reach.

Justification This project was identified in the SMMP as an area where increased biotechnical slope stability and possible channel reconfiguration should be explored to address excessive erosion and sedimentation.

Responsible Section FCE Flood Control Engineering

Operating Impact Long-term maintenance will be addressed by others. Impacts to operations should only occur during planning, design, and construction.

In Service Date **Month:** October **Year:** 2015

Total Project Cost \$2,170,000

Source of Funds Fund 50 Flood Control/General Fund 83%
Fund 76 Flood Protection and Special Drainage Area 17%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$80	\$110	\$60	\$30	\$0	\$0	\$280
Design	\$0	\$160	\$0	\$0	\$0	\$0	\$0	\$160
Construction	\$0	\$0	\$1,730	\$0	\$0	\$0	\$0	\$1,730
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$240	\$1,840	\$60	\$30	\$0	\$0	\$2,170

Capital Improvement Project Summary Report

Strategy Expansion
Renewal/Replacement

Program Program Management

Project Capital Improvement Program Management

Project ID: SP13

Strategic Planning Priority 1.3

Project Description Ongoing program management of the Capital Improvement Program (CIP) including annual report preparation, Zone 7 labor and other CIP related efforts.

Justification Provides for better tracking of program management costs.

Origin: Capital Improvement Program

Responsible Section ASD Administrative Services Division
FE Facilities Engineering

Operating Impact None

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$5,103,000

Source of Funds

Fund 50	Flood Control/General Fund	3%
Fund 72	Water Rates	20%
Fund 73	Connection Fees	75%
Fund 76	Flood Protection and Special Drainage Area	2%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$66	\$3	\$6	\$3	\$6	\$3	\$142	\$255
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$66	\$3	\$6	\$3	\$6	\$3	\$142	\$255

Capital Improvement Project Summary Report

Strategy Renewal/Replacement

Program Flood Control Facilities

Project **Construction and Rehabilitation of Maintenance Roads**

Project ID: FC9

Strategic Planning Priority 2.1

Project Description Construct new and rehabilitate existing gravel flood channel maintenance roads by replenishing and reconstructing the road base to ensure proper channel operation and to provide good structural integrity. Proper grading and compaction also ensure good drainage which promotes long road life.

Justification Construction of new and rehabilitation of existing gravel roads is needed along flood control channels. Heavy usage and previous storm damage have caused these maintenance roads to become inaccessible under wet conditions. This program is required to provide and to restore the function and integrity of these roads to provide safe access for staff to conduct facility inspection activities on a year-round basis as well as to ensure the structural integrity of the flood control channels.

Responsible Section FCE Flood Control Engineering

Operating Impact Increased maintenance efficiencies by providing safe access for staff to conduct facility inspection activities on a year-round basis.

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$1,120,000

Source of Funds Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$20	\$20	\$20	\$30	\$30	\$30	\$0	\$150
Design	\$30	\$20	\$10	\$30	\$40	\$40	\$0	\$170
Construction	\$130	\$100	\$110	\$150	\$150	\$160	\$0	\$800
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$180	\$140	\$140	\$210	\$220	\$230	\$0	\$1,120

Capital Improvement Project Summary Report

Strategy Expansion
System-Wide Improvements

Program Flood Control Facilities

Project **Development Impact Fee Update**

Project ID: SDA29

Strategic Planning Priority 2.2

Project Description The Development Impact Fee (DIF) was enacted in 2008 to replace the Special Drainage Area 7-1 (SDA 7-1) Fee structure and to bring the program in line with the Stream Management Master Plan. As a part of the adoption of the new ordinance and fee, Zone 7 agreed to reassess the amount of the fee in 2012. In anticipation of this update and reassessment, Zone 7 has initiated a Valley-wide hydrology and hydraulic model and will be using this model to look at the SMMP projects on a planning level to assess their need and cost estimates. The DIF will also examine the changing mitigation requirements for new projects and seeks to better address these costs

Justification Zone 7 agreed to reassess the DIF in 2012 as a part of our adoptions of a new ordinance in fee structure in 2008. This project anticipates the reassessment of the DIF projects and fee

Responsible Section IP Integrated Planning

Operating Impact The result of this evaluation may modify the existing fee structure and amount.

In Service Date **Month:** January **Year:** 2013

Total Project Cost \$350,000

Source of Funds Fund 50 Flood Control/General Fund 59%
Fund 76 Flood Protection and Special Drainage Area 41%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$160	\$0	\$0	\$0	\$0	\$190	\$350
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$160	\$0	\$0	\$0	\$0	\$190	\$350

Capital Improvement Project Summary Report

Strategy Renewal/Replacement

Program Flood Control Facilities

Project **District-wide F. C. Channel Desilting Program**

Project ID: FC5

Strategic Planning Priority 2.1

Project Description This district-wide desilting program is designed to systematically plan, design and remove over 300,000 cubic yards of sediment which has accumulated in various flood control channels over the years.

Justification Silt sedimentation decreases channel carrying and conveyance capability which compromises the level of flood protection. Excessive sedimentation also increases loading on channel banks which leads to increases in the amount and severity of bank slides. This program is required to restore the flood control channel facilities to their original hydraulic design capacity in order to provide the designed level of flood protection.

Responsible Section FCE Flood Control Engineering

Operating Impact Increased flood control channel efficiency and prolong service life.

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$780,000

Source of Funds Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$20	\$5	\$5	\$5	\$5	\$5	\$0	\$20
Design	\$20	\$10	\$10	\$10	\$10	\$10	\$0	\$20
Construction	\$160	\$80	\$80	\$90	\$90	\$100	\$0	\$700
Other	\$40	\$5	\$5	\$5	\$5	\$5	\$0	\$40
Total	\$240	\$100	\$100	\$110	\$110	\$120	\$0	\$780

Capital Improvement Project Summary Report

Strategy System-Wide Improvements
Expansion

Program Flood Control Facilities

Project El Charro Specific Plan (R.5-2/R5-3 - portions)

Project ID: SDA28

Strategic Planning Priority 2.3

Project Description The El Charro Specific Plan was adopted by the City of Livermore in 2007 and has been undergoing project planning and design. The City and Zone 7 have worked on conjunction with one another to merge the flood protection goals of the SMMP and the City's development plans for the area. An agreement between the City and Zone 7 anticipates that specific flood infrastructure improvements shall be constructed as a part of the development and will contribute to regional flood protection once the remaining aspects of the Chain of Lakes projects can be completed. Zone 7's role in the anticipated infrastructure improvements will be minor, but will entail construction inspections and we may act as technical advisors.

Justification Although the specific projects anticipated in this agreement are not the same as those envisioned in the SMMP, the project elements meet the goals and objective of our master plan. This project provides alternatives to those identified in the SMMP for addressing 100-year flow through the Las Positas Golf Course and provides a location where flows may be diverted into the Chain of Lakes for stormwater detention in the future.

Responsible Section FCE Flood Control Engineering

Operating Impact The agreement created between the City and Zone 7 provides for the construction of portions of the SMMP projects R.5-2 and R.5-3 and identifies a mechanism for addressing the costs of long-term maintenance

In Service Date **Month:** June **Year:** 2013

Total Project Cost \$560,000

Source of Funds Fund 50 Flood Control/General Fund 43%
Fund 76 Flood Protection and Special Drainage Area 57%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$20	\$0	\$0	\$0	\$0	\$0	\$40
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$520	\$0	\$0	\$0	\$0	\$0	\$520
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$540	\$0	\$0	\$0	\$0	\$0	\$560

Capital Improvement Project Summary Report

Strategy Renewal/Replacement

Program Flood Control Facilities

Project **Fences & Gates Installation & Replacement**

Project ID: FC7

Strategic Planning Priority 2.1

Project Description This project provides for the replacement of damaged or destroyed fences and gates within the flood control facilities.

Justification Zone 7 owns about 37 miles of channels. From time to time, fences and gates are damaged or destroyed by vandalism, traffic accidents, or adjacent property owners' activities. When adjacent property becomes developed, it requires upgrading to a higher security fence other than a 5-wire field fence. Replacement of these fences and gates are necessary for security to provide for public safety and liability purposes.

Responsible Section FCE Flood Control Engineering

Operating Impact Provides for the desired level of security, liability and safety within Zone 7 stream channels.

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$270,000

Source of Funds Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$10	\$10	\$10	\$20	\$20	\$20	\$0	\$90
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$30	\$30	\$30	\$30	\$30	\$30	\$0	\$180
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$40	\$40	\$40	\$50	\$50	\$50	\$0	\$270

Capital Improvement Project Summary Report

Strategy Expansion
System-Wide Improvements

Program Flood Control Facilities

Project **Flood Facilities - Chain of Lakes**

Project ID: SDA30

Strategic Planning Priority 2.4

Project Description The SMMP identified specific flood protection improvements under Project R.5-2 and R.5-3 that were not addressed under the El Charro Specific Plan (ECSP) Agreement improvements. Elements not addressed in the ECSP include a diversion into the Chain of Lakes for the detention of flood flows and a conduit and pumping system for the transference of these flows internally within the Chain of Lakes and subsequently, back into the Arroyo Mocho once the peak storm flows pass. This project also includes certain physical improvements around lakes that may be used for flood protection purposes.

Justification The SMMP identified storage in the Chain of Lakes as one solution to existing and future flood flows to meet the goal of providing 100-year flood protection for the Livermore-Amador Valley.

Responsible Section FCE Flood Control Engineering

Operating Impact Helps to assist Zone 7 in achieving the goals of the SMMP and assists in meeting regulatory requirements for long-term sediment management through improved sediment transport capacity.

In Service Date **Month:** June **Year:** 2019

Total Project Cost \$25,350,000

Source of Funds Fund 50 Flood Control/General Fund 43%
Fund 76 Flood Protection and Special Drainage Area 57%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$20	\$20	\$250	\$600	\$240	\$0	\$1,320
Design	\$0	\$30	\$0	\$610	\$260	\$0	\$0	\$960
Construction	\$0	\$0	\$2,110	\$480	\$4,560	\$9,730	\$0	\$20,730
Other	\$0	\$0	\$0	\$0	\$2,340	\$0	\$0	\$2,340
Total	\$0	\$50	\$2,130	\$1,340	\$7,760	\$9,970	\$0	\$25,350

Capital Improvement Project Summary Report

Strategy System-Wide Improvements
Expansion

Program Water Supply & Conveyance

Project **Lakes H, I and Cope Facility Planning**

Project ID: COL13

Strategic Planning Priority 1.6,1.1,2.2,2.4,2.7

Project Description This project will plan the near-term operations and facilities necessary to integrate Lakes H, I, and Cope into Zone 7's water supply system, Zone 7's regional flood protection system, and into various general plans, specific plans, on-going construction, or other activities in the Livermore-Amador Valley.

Justification Zone 7 already owns Lakes I and Cope, and anticipates receiving Lake H in October 2014 when Hanson's lease expires with Pleasanton Gravel Company. These lakes can be used in the near-term for water management purposes, which will allow Zone 7 to reduce evaporative losses and implement mitigative measures for salt loading in the Livermore Valley Groundwater Basin, and enhance artificial recharge and flood protection activities. These near-term activities are especially vital in light of the current crisis in the Sacramento-San Joaquin Delta.

Origin: 2006 Stream Management Master Plan, 2011 Water Supply Evaluation Report

Responsible Section IP Integrated Planning

Operating Impact Enhances Zone 7's ability to manage water.

In Service Date **Month:** June **Year:** 2013

Total Project Cost \$310,000

Source of Funds

Fund 50	Flood Control/General Fund	22%
Fund 72	Water Rates	15%
Fund 73	Connection Fees	35%
Fund 76	Flood Protection and Special Drainage Area	28%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$155	\$0	\$0	\$0	\$0	\$0	\$155
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$155	\$0	\$0	\$0	\$0	\$0	\$155

Capital Improvement Project Summary Report

Strategy Renewal/Replacement

Program Flood Control Facilities

Project Landscaping & Hydroseeding Channel Embankments

Project ID: FC8

Strategic Planning Priority 2.1

Project Description Installation of landscaping to meet the Best Management Practices requirements under the Alameda County Clean Water Program, and erosion control hydroseeding at Zone 7 flood control channel facilities.

Justification Provide erosion control measures and promotes natural habitat for wildlife.

Responsible Section FCE Flood Control Engineering

Operating Impact Increased maintenance.

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$620,000

Source of Funds Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$10	\$10	\$10	\$10	\$10	\$10	\$0	\$60
Design	\$10	\$10	\$10	\$10	\$10	\$10	\$0	\$60
Construction	\$80	\$80	\$80	\$80	\$90	\$90	\$0	\$500
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$100	\$100	\$100	\$100	\$110	\$110	\$0	\$620

Capital Improvement Project Summary Report

Strategy Expansion
System-Wide Improvements

Program Flood Control Facilities

Project **R. 1-7: Arroyo Las Positas at N. Vasco Improvements**

Project ID: SDA23

Strategic Planning Priority 2.1,2.7

Project Description This reach of the Arroyo las Positas has recently been acquired by Zone 7 in a partially improved state from Alameda County. The channel is undersized to carry 100-year capacity and does not have full maintenance roads along the top of bank. Zone 7 is working with an adjacent landowner to pilot an experimental stormwater/channel overflow detention area. The adjacent development will detain stormwater up to the 25-year event in a low-lying park area. In flow events greater than the 25-year event, water from the channel will interact with and overflow into the park area, thereby providing additional storage of floodwaters. This creative detention is not sufficient, however, to alleviate the expansion of the existing undersized channel. Channel improvements as identified in the SMMP and StreamWISE process will be necessary to bring this reach of the Arroyo into compliance with the standards of the Zone 7 flood protection system.

Justification The property was transferred from Alameda County to Zone 7 in 2011 in a partially improved condition. This project was identified in the SMMP as a partially improved channel that was undersized. The channel does not meet Zone 7 standards of providing 100-year flood protection to the surrounding properties and does not have full access for maintenance.

Responsible Section FCE Flood Control Engineering

Operating Impact The channel will require long-term maintenance. An existing city trail runs along the north side of the property and will need to be incorporated into the recreational use agreement.

In Service Date **Month:** October **Year:** 2013

Total Project Cost \$2,830,000

Source of Funds Fund 50 Flood Control/General Fund 83%
Fund 76 Flood Protection and Special Drainage Area 17%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$160	\$160	\$0	\$0	\$0	\$0	\$320
Design	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$50
Construction	\$0	\$1,010	\$1,450	\$0	\$0	\$0	\$0	\$2,460
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$1,220	\$1,610	\$0	\$0	\$0	\$0	\$2,830

Capital Improvement Project Summary Report

Strategy Expansion
System-Wide Improvements

Program Flood Control Facilities

Project **R.3-5: Arroyo Mocho - Stanley Reach Pilot Project**

Project ID: SDA24

Strategic Planning Priority 2.3,2.7

Project Description This reach of the Arroyo Mocho has been identified as a pilot project area where the standard trapezoidal channel configuration may be modified or more heavily planted to experiment with meeting the more stringent environmental and habitat requirements of regulatory agencies. Additionally, this reach has possible fish barriers that will need to be addressed should steelhead trout be introduced into the Arroyo Mocho watershed. This pilot project seeks to create a more natural stream channel environment from the existing trapezoidal channel by modifying the configuration of the stream bed to more effectively pass sediment and flows while allowing for increased riparian habitat through plantings. Zone 7 is working with Caltrans and Alameda County Surplus Property Authority to determine if their mitigation needs can be met through funding improvements at this site. Should this model for stream enhancement be successful, this may provide another avenue for funding portions of the habitat improvements identified in the SMMP that are not reserved for Zone 7 mitigation needs.

Justification This project was identified in the SMMP as an area where increased riparian cover could be accomplished while removing fish passage barriers. The pilot project is necessary to judge how other portions of the channelized Arroyo will react to channel modification and increased roughness. This pilot also allows for increased scientific understanding and provides a potential methodology for funding long-term maintenance through mitigation dollars.

Responsible Section FCE Flood Control Engineering

Operating Impact The result of this pilot project will be increased riparian cover to the open channel. Increased vegetation maintenance will be necessary; however, enhancing the riparian habitat will help Zone 7 achieve the goals of the SMMP and assists in meeting regulatory requirements for long-term sediment management through improved sediment transport capacity.

In Service Date **Month:** November **Year:** 2012

Total Project Cost \$500,000

Source of Funds Fund 50 Flood Control/General Fund 83%
Fund 76 Flood Protection and Special Drainage Area 17%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$100	\$50	\$30	\$30	\$30	\$0	\$240
Design	\$0	\$50	\$0	\$0	\$0	\$0	\$0	\$50
Construction	\$0	\$210	\$0	\$0	\$0	\$0	\$0	\$210
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$360	\$50	\$30	\$30	\$30	\$0	\$500

Capital Improvement Project Summary Report

Strategy Renewal/Replacement

Program Flood Control Facilities

Project **Rehabilitation of F. C. Channel Embankments**

Project ID: FC3

Strategic Planning Priority 2.1

Project Description Rehabilitation and rebuilding of damaged flood control channel facilities.

Justification Previous storm damages have deteriorated and degraded the structural integrity of these existing facilities. This project is required to restore the facilities to or above the original design function and protection level against storm events in any given time.

Responsible Section FCE Flood Control Engineering

Operating Impact Increase flood control channel efficiency and prolong service life.

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$4,460,000

Source of Funds Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$100	\$80	\$80	\$80	\$90	\$90	\$0	\$520
Design	\$30	\$30	\$30	\$30	\$30	\$30	\$0	\$180
Construction	\$510	\$600	\$620	\$650	\$670	\$700	\$0	\$3,750
Other	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$10
Total	\$650	\$710	\$730	\$760	\$790	\$820	\$0	\$4,460

Capital Improvement Project Summary Report

Strategy Expansion
System-Wide Improvements

Program Flood Control Facilities

Project **Sediment Transport Study**

Project ID: SDA26

Strategic Planning Priority 2.2

Project Description To develop a District-wide sediment transport analysis program and augment the existing stream gaging program for the streams in the Zone 7 service area.

Justification As a part of the Stream Management Master Plan (SMMP) and Development Impact Fee Program updates, staff will be revising and creating technical studies/modeling in the areas of hydrology, hydraulic, geomorphology, sediment transport, and an environmental assessment. Several flood control channel sections owned and maintained by Zone 7 have experienced sediment accumulation and reduced capacity in past years, as was identified in the SMMP. To address future maintenance needs and assist in the acquisition of regulatory permits on these reaches, Zone 7 staff plans to continue to conduct a sediment transport study to better understand the magnitude, movement, and accumulation of sediment in local streams.

Responsible Section FCE Flood Control Engineering

Operating Impact Issues identified from the sediment study would have current and long term fiscal implications to flood control's capital improvement program.

In Service Date **Month:** December **Year:** 2013

Total Project Cost \$130,000

Source of Funds Fund 50 Flood Control/General Fund 59%
Fund 76 Flood Protection and Special Drainage Area 41%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$70	\$30	\$30	\$0	\$0	\$0	\$130
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$70	\$30	\$30	\$0	\$0	\$0	\$130

Capital Improvement Project Summary Report

Strategy Expansion

Program Flood Control Facilities

Project **Steelhead and Related Studies**

Project ID: FC11

Strategic Planning Priority 2.5

Project Description A Memorandum of Understanding (MOU) was approved by the 17 members of the Alameda Creek Fisheries Restoration Workgroup (Workgroup), and signed by Zone 7, in 2006. The recommendations from the Workgroup's efforts will provide the participants with a common basis for determining appropriate impact mitigation for projects such as our future SMMP projects, and also could spur opportunities for partnering on mitigation projects. Amendments no. 1&2 to the current MOU was executed to provide additional work in conjunction with NMFS to assist in the preparation of their Steelhead Recovery Plan. Additional amendments are anticipated to complete all elements of the work plan. This project is split 50% Fund 76 and 50% Fund 52. The cost shown here is Fund 76's share only.

Justification The primary benefit of this collaborative fisheries restoration framework for participating agencies is regulatory assurance and protection from potentially violating provisions of the Endangered Species Act in the course of operations and maintenance in the watershed.

Responsible Section IP Integrated Planning

Operating Impact None

In Service Date **Month:** June **Year:** 2014

Total Project Cost \$110,000

Source of Funds Fund 76 Flood Protection and Special Drainage Area 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$20	\$20	\$20	\$25	\$25	\$0	\$110
Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$20	\$20	\$20	\$25	\$25	\$0	\$110

Capital Improvement Project Summary Report

Strategy Expansion
System-Wide Improvements

Program Flood Control Facilities

Project Stream Management Master Plan Update

Project ID: SDA27

Strategic Planning Priority 2.2,2.3,2.4,2.5,2.6

Project Description This project will update Zone 7's existing Stream Management Master Plan (SMMP). As part of this update, Zone 7 staff will create updated hydrologic and hydraulic models for the major drainage basins in the Livermore-Amador Valley, while also completing a reassessment of the projects and costs proposed in the original plan to help support an update of the existing development impact fee (DIF).

Justification Zone 7 approved and adopted the SMMP in 2006, with the intention of updating this plan periodically to address changing conditions within the Livermore-Amador Valley. Five years have passed since the SMMP was originally adopted; consequently, an update the SMMP is necessary to address changing conditions, including the use of more advance modeling techniques, the current economic environment, and to help support an update to the existing DIF.

Responsible Section IP Integrated Planning

Operating Impact The result of this project could modify the scope and costs of the projects in the original SMMP, which may modify the existing fee structure

In Service Date **Month:** January **Year:** 2013

Total Project Cost \$780,000

Source of Funds Fund 50 Flood Control/General Fund 59%
Fund 76 Flood Protection and Special Drainage Area 41%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$0	\$160	\$80	\$0	\$0	\$120	\$0	\$570
Design	\$0	\$210	\$0	\$0	\$0	\$0	\$0	\$210
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$370	\$80	\$0	\$0	\$120	\$0	\$780

Capital Improvement Project Summary Report

Strategy System-Wide Improvements

Program Flood Control Facilities

Project System-wide Asphalt Paving F.C. Facility Driveway

Project ID: FC1

Strategic Planning Priority 2.1

Project Description Improve existing gravel flood control facility driveway entrances by placement of asphalt pavements.

Justification Gravel driveway entrances deteriorate over time with heavy traffic usage and wet weather. In addition, staff finds gravel scattered on the adjacent sidewalks at times creating tripping hazards which may expose Zone 7 to undesirable liability issues. Improving driveways from gravel to asphalt will provide all weather entrance capability and reduce potential claims against Zone 7.

Responsible Section FCE Flood Control Engineering

Operating Impact Increase in long term renewal and replacement costs but decrease in short term maintenance costs.

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$470,000

Source of Funds Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$10	\$10	\$10	\$20	\$20	\$20	\$0	\$90
Design	\$10	\$10	\$10	\$10	\$10	\$10	\$0	\$60
Construction	\$50	\$30	\$30	\$70	\$70	\$70	\$0	\$320
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$70	\$50	\$50	\$100	\$100	\$100	\$0	\$470

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Flood Control Facilities
Project	System-wide Construction of Concrete V-ditches
Project ID:	FC4
Strategic Planning Priority	2.1
Project Description	Convert existing earthen V-ditches to concrete V-ditches along the top of flood control channels and maintenance roads.
Justification	The effectiveness of earthen V-ditches are often altered by erosion, siltation, soil settlement and vehicle usage which reduces the flow and can lead to larger problems such as channel bank failures. They require a high degree of maintenance activity to ensure proper function (i.e., cleaning, regrading, weed abatement, etc.). Improving V-ditches from earthen to concrete will reduce maintenance costs in a long run and improve embankment stability
Responsible Section	FCE Flood Control Engineering
Operating Impact	Increase in long term renewal and replacement costs but decrease in short term maintenance costs.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$430,000
Source of Funds	Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$10	\$10	\$10	\$10	\$10	\$10	\$0	\$60
Design	\$10	\$10	\$10	\$20	\$20	\$20	\$0	\$90
Construction	\$40	\$30	\$30	\$60	\$60	\$60	\$0	\$280
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$60	\$50	\$50	\$90	\$90	\$90	\$0	\$430

Capital Improvement Project Summary Report

Strategy Renewal/Replacement

Program Flood Control Facilities

Project **System-wide Construction of Drain Structures**

Project ID: FC6

Strategic Planning Priority 2.1

Project Description Improve drainage along the top of embankment and along channel slopes by construction of drain structures (drain inlets, cross drain piping and outfall structures).

Justification Water collects in v-ditches along the top of embankments must be conveyed to the channels. There are a number of reaches of flood control channels where the numbers of drain structures are inadequate, causing ponding and overbank sheet flowoverflow. At these locations, new drain structures must be constructed in order to resolve the drainage problem and protect the structural integrity of the channel banks.improve the embankment stability.

Responsible Section FCE Flood Control Engineering

Operating Impact Increase in long-term renewal and replacement costs but decrease in short-term maintenance costs.

In Service Date **Month:** **Year:** Ongoing

Total Project Cost \$690,000

Source of Funds Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$20	\$10	\$50	\$20	\$20	\$20	\$0	\$140
Design	\$10	\$10	\$0	\$10	\$10	\$10	\$0	\$50
Construction	\$80	\$20	\$0	\$90	\$90	\$100	\$0	\$380
Other	\$0	\$60	\$60	\$0	\$0	\$0	\$0	\$120
Total	\$110	\$100	\$110	\$120	\$120	\$130	\$0	\$690

Capital Improvement Project Summary Report

Strategy	System-Wide Improvements
Program	Flood Control Facilities
Project	System-wide Vegetation Abatement
Project ID:	FC10
Strategic Planning Priority	2.1
Project Description	Provide chemical and mechanical vegetation abatement on Zone 7 flood control facilities.
Justification	Comply with local fire department regulations, enhance Zone 7's public appearance and provide cleanliness and functionality of facilities.
Responsible Section	FCE Flood Control Engineering
Operating Impact	Increase operation and maintenance efficiencies.
In Service Date	Month: Year: Ongoing
Total Project Cost	\$2,940,000
Source of Funds	Fund 50 Flood Control/General Fund 100%

(\$1,000)

Appropriation	Prior	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	Future	Total
Planning	\$340	\$10	\$10	\$10	\$10	\$10	\$0	\$390
Design	\$0	\$10	\$10	\$10	\$10	\$10	\$0	\$50
Construction	\$0	\$370	\$450	\$540	\$560	\$580	\$0	\$2,500
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$340	\$390	\$470	\$560	\$580	\$600	\$0	\$2,940

Appendix A

ZONE 7 BOARD POLICY/PLANNING RESOLUTIONS

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO. 99-2068

INTRODUCED BY DIRECTOR LAYTON

SECONDED BY DIRECTOR MARCHAND

WHEREAS, Zone 7 serves as the overall water quality management agency for the Alameda Creek watershed above Niles and has primary responsibility for management of the Livermore-Amador Valley's surface and groundwater resources;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Zone 7 Water Agency does hereby support the proposed Salt Management Program Implementation Plan and inclusion of the following policy goals in the Zone 7 annual operations plan:

- Offset the current 2200 tons per year of salt loading plus approximately 200 tons per year current projected annual increase;
- Maintain or improve groundwater mineral quality;
- Maintain or improve delivered water quality;
- Provide comparable delivered water quality to all retailers;
- Provide a mechanism for mitigation of all salt loading associated with recycled water use;
- Minimize total operational and maintenance costs through an adaptive management process.

BE IT FURTHER RESOLVED the Zone 7 General Manager is hereby authorized to proceed with the recommended year 2000-2002 Salt Management Implementation Plan.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS CONCANNON, FIGURES, LAYTON, MARCHAND, STEVENS

NOES: NONE

ABSENT: DIRECTORS GRECI, KALTHOFF

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution
Adopted by the Board of Directors of Zone 7 of Alameda
County Flood Control and Water Conservation District on

August 18, 1999

Original resolution signed by the President, Board of Directors

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 04-2662

INTRODUCED BY DIRECTOR MARCHAND
SECONDED BY DIRECTOR CONCANNON

Reliability Policy for Municipal & Industrial Water Supplies

WHEREAS, the Zone 7 Board of Directors desires to maintain a highly reliable Municipal and Industrial (M&I) water supply system so that existing and future M&I water demands can be met during varying hydrologic conditions; and

WHEREAS, the Board has an obligation to communicate to its M&I customers and municipalities within its service area the ability of the Zone's water supply system to meet projected water demands.

WHEREAS, the Board on May 15, 2002 adopted Resolution No. 02-2382 setting forth its Reliability Policy for Municipal & Industrial Water Supplies; and

WHEREAS, the Zone's current water supply policy includes a provision for a valley-wide groundwater production capability to meet 75% of valley-wide M&I demand in the event of an outage of the South Bay Aqueduct; and

WHEREAS, the Board desires to revise the Reliability Policy to include all Zone 7 water supply facilities and to clarify demand levels for planning purposes;

NOW, THEREFORE, BE IT RESOLVED that the Board hereby rescinds Resolution No. 02-2382 adopting the May 15, 2002 Reliability Policy for Municipal & Industrial Water Supplies; and

BE IT FURTHER RESOLVED that the Board hereby adopts the following policy goals regarding reliability¹ to guide the management of the Zone's M&I water supplies as well as its Capital Improvement Program (CIP)²:

- GOAL 1. Meet 100% of its treated water customers water supply needs in accordance with Zone 7's most current Contracts for M&I Water Supply, including existing and projected demands for the next 20 years as specified in Zone 7's Urban Water Management Plan, (UWMP), which will be coordinated with Zone 7's M&I water Contractors. Zone 7 will endeavor to meet this goal during an average water year³, a single dry water year⁴, and multiple dry water years⁵, and

GOAL 2: Provide sufficient treated water production capacity and infrastructure to meet at least 75% of the maximum daily M&I contractual demands should any one of Zone 7's major supply, production or transmission facilities experience an extended unplanned outage.

BE IT FURTHER RESOLVED that to ensure that this Board policy is carried out effectively, the Zone 7 General Manager will provide a water supply status report to the Board every five years with the Zone 7 Urban Water Management Plan that specifies how these goals can be, or are being, achieved.

If the General Manager finds that the goals might not be met, then the Board will hold a public hearing within two months of the General Manager's finding to consider remedial actions that will bring the Zone into substantial compliance with the stated reliability goals. Remedial actions may include, but are not limited to, voluntary conservation or mandatory rationing to reduce water demands, acquisition of additional water supplies, and/or a moratorium on new water connections. After reviewing staff analyses and information gathered at the public hearing, the Board shall, as expeditiously as is feasible, take any additional actions that are necessary to meet the reliability goals during the following five-year period; and

BE IT FURTHER RESOLVED that the Zone 7 General Manager shall prepare an Annual Review of the Sustainable Water Supply Report which includes the following information:

- (1) An estimate of the current annual average water demand for M&I water as well as a five-year projection based on the same information used to prepare the UWMP and CIP;
- (2) A summary of available water supplies⁶ to Zone 7 at the beginning of the calendar year;
- (3) A comparison of current water demands with the available water supplies; and
- (4) A discussion of water conservation requirements and other long-term water supply programs needed to meet Zone 7 M&I water demands for a single dry water year and multiple dry years, as specified in the Zone's UWMP.

A summary of this review will be provided to M & I customers.

Definitions

¹**Reliability**—the ability of a water supply system to provide water during varying hydrologic conditions without the need for reductions in water use.

²**Capital Improvement Program (CIP)**—the CIP is the Zone's formal program for developing surface and ground water supplies, along with associated infrastructure, including import water conveyance facilities, surface water treatment plants, groundwater wells, and M&I water transmission system to meet projected water demands.

³**Average water year**—the statistical average quantity of water from all of the water supplies available to Zone 7 on a contractual or legal basis (e.g., surface water runoff to Del Valle reservoir), based on the historical hydrologic records available to Zone 7.

⁴**Single dry water year**—for the purposes of meeting the requirements of the UWMP, the Zone 7 staff will identify and justify the selection of a calendar year from the historic record that represents the lowest yield from all normally contracted or legally available supplies.

⁵**Multiple dry water years**—for the purposes of meeting the requirements of the UWMP, the Zone 7 staff will identify and justify the selection of three or more consecutive dry years from the historic record that represent the lowest yields from all normally contracted or legally available supplies.

⁶**Available water supplies** consist solely of (1) water supplies that the Zone 7 has contracted for (e.g., listed under Schedule A of the State Water Contract, dry-year water options, special contracts with other water districts, etc.) and (2) water actually stored in surface and subsurface reservoirs.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS CONCANNON, GRECI, KOHNEN, MARCHAND, QUIGLEY

NOES: NONE

ABSENT: DIRECTORS KALTHOFF, STEVENS

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution
Adopted by the Board of Directors of Zone 7 of Alameda
County Flood Control and Water Conservation District on

August 18, 2004

Original resolution signed by the President, Board of Directors

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY DIRECTOR MARCHAND

SECONDED BY DIRECTOR KALTHOFF

Water Quality Policy for Potable and Non-potable Water

WHEREAS, the Zone 7 Board of Directors is committed to delivering high quality water supplies, to its potable (treated drinking water) and non-potable water Contractors, that meet or exceed the California Department of Health Services and the United States Environmental Protection Agency's public health requirements in accordance with existing water supply agreements, in a manner that is fiscally responsible, proactive, and environmentally sensitive; and

WHEREAS, the Board desires to deliver potable water of an approximately equal quality to each Municipal and Industrial (M&I) Contractor without diminishing their existing water quality; and

WHEREAS, the Board desires to deliver non-potable water of an appropriate quality for irrigation users from current surface and ground water supplies, and as a blended source of untreated and recycled water, when available.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby adopts the following policy goals regarding water quality to guide the Zone 7 potable and non-potable water operations and its Capital Improvement Program:

GOAL 1 – Zone 7 shall continue to meet all state and federal primary Maximum Contaminant Levels¹ (MCLs) for potable water delivered to the M&I Contractors' turnouts, in accordance with existing water supply agreements. In addition, Zone 7 shall deliver potable water of a quality that is as close as technically feasible and fiscally responsible to the Public Health Goals² (PHGs) and/or Maximum Contaminant Level Goals³ (MCLGs). To ensure a margin of safety, the delivered water shall generally be of a quality that contains no greater than 80 percent of the applicable state or federal primary MCLs.

GOAL 2 – Zone 7 shall meet all state and federal secondary MCLs¹ in the potable water delivered to its M&I Contractors' turnouts. In addition, Zone 7 shall, within technical and fiscal constraints, proactively mitigate earthy-musty taste and odor events from surface water supplies and reduce hardness levels to "moderately hard", defined as 75 to 150 mg/L. Also, Zone 7 shall optimize its treatment processes to minimize chlorinous odors by maintaining consistent disinfectant dosage and residual.

GOAL 3 – Zone 7 shall endeavor to deliver to its non-potable Contractor turnouts, from a variety of sources, water of a quality that meets the irrigation needs of its Contractors and does not negatively impact vegetation, crops, or soils.

GOAL 4 – In order to achieve Goals 1 through 3, Zone 7 shall continue to work to improve the quality of its source waters. This may be achieved through Zone 7's Salt Management Plan, which will maintain or improve the water quality in the groundwater basin, and through advocacy of improvements in the State

Water Project, its' facilities and their operations, which may improve the source water of Zone 7's surface water supplies. In addition, Zone 7 will encourage the retailers to take similar steps as those outlined in this policy to improve the quality of the retail customers' water.

BE IT FURTHER RESOLVED that this Board policy be reviewed and updated as needed. Also, to ensure that this Board policy is carried out effectively, the Zone 7 General Manager shall implement the following actions:

- An Implementation Plan shall be prepared as a part of the Water Quality Management Program to implement treatment or other processes necessary to meet the water quality policy goals. Optimization of system operations will be recommended, wherever possible, prior to the identification of the need for capital improvements;
- The Implementation Plan shall be reviewed and updated every two years, or sooner if required, to reflect any emerging water quality issues and other relevant regulatory and/or technology development; and
- The Implementation Plan, and any subsequent updates, shall be incorporated into the annual updates of Zone 7's Five-year Capital Improvement Plan, as feasible.

¹ Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

² Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

³ Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the United States Environmental Protection Agency.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS CONCANNON, GRECI, JOHNSTON, KALTHOFF, LAYTON, MARCHAND

NOES: NONE

ABSENT: DIRECTOR STEVENS

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution
Adopted by the Board of Directors of Zone 7 of Alameda
County Flood Control and Water Conservation District on

April 16, 2003

Original resolution signed by the President, Board of Directors

**City of Pleasanton
Resolution No. 05-065**

**DSRSD
Resolution No. 35-05**

**Zone 7 Water Agency
Resolution No. 06-2783**

**JOINT RESOLUTION
CITY OF PLEASANTON
DUBLIN SAN RAMON SERVICES DISTRICT
ZONE 7 WATER AGENCY**

A JOINT RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PLEASANTON, THE BOARD OF DIRECTORS OF THE DUBLIN SAN RAMON SERVICES DISTRICT AND THE BOARD OF DIRECTORS OF THE ZONE 7 WATER AGENCY REGARDING WATER QUALITY

WHEREAS, the existing Zone 7 Water Quality Policy and Implementation Plan was adopted on April 16, 2003 after extensive discussions with stakeholders, and with the support of the Retail Water Contractors California Water Service Company, the Dublin San Ramon Services District, the City of Livermore, and the City of Pleasanton; and

WHEREAS, the adopted Water Quality Policy and Implementation Plan identified specific water quality targets, and proposed specific projects and implementation schedules; and

WHEREAS, the proposed projects are currently on schedule; and

WHEREAS, the Water Quality Policy calls Zone 7 to review and update that document at a minimum of every two years; and

WHEREAS, opinion surveys conducted by Zone 7, the City of Pleasanton, and the Dublin San Ramon Services show that a substantial number of customers desire feasible improvements to the quality of their delivered water; and

WHEREAS the Dublin San Ramon Services District and the City of Pleasanton desire revisions to the existing Water Quality Policy, Goals, and Implementation Plan, and desire that the Water Quality Goals, and Implementation Plan schedules and that various

City of Pleasanton Resolution No. 05-065
DSRSD Resolution No. 35-05
Zone 7 Water Agency Resolution No. 06-2783

other options to further improve water quality be evaluated in the ongoing biannual review of the Water Quality Policy; and

WHEREAS, the Dublin San Ramon Services District and the City of Pleasanton understand that the acceleration of project schedules, and the implementation of additional improvements to water quality may result in added costs to their customers; and;

WHEREAS, on May 13, 2005 a special meeting involving members of the City Council of the City of Pleasanton, the Board of Directors of the Dublin San Ramon Services District and the Board of Directors of the Zone 7 Water Agency was held for the purpose of discussing mutual concerns about the taste, odor and hardness of the water received by the customers of all three agencies; and

WHEREAS, the participants at that meeting expressed a shared desire to take prudent and practical steps to improve the taste and reduce the odor and hardness of the delivered water; and

WHEREAS, the road to improve the taste and to reduce the odor and hardness of the delivered water will include new facilities, operational considerations and financial decisions in which all three agencies have an interest; and

WHEREAS, another meeting involving members of the City Council of the City of Pleasanton, the Board of Directors of the Dublin San Ramon Services District and the Board of Directors of the Zone 7 Water Agency was held on August 1, 2005; and

WHEREAS, the City Council of the City of Pleasanton, the Board of Directors of the Dublin San Ramon Services District and the Board of Directors of the Zone 7 Water Agency wish to express their mutual commitment to work together for the benefit of the common customers they all serve.

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PLEASANTON, THE BOARD OF DIRECTORS OF THE DUBLIN SAN RAMON SERVICES DISTRICT AND THE BOARD OF DIRECTORS OF THE ZONE 7 WATER AGENCY AS FOLLOWS:

1. That the City of Pleasanton and the Dublin San Ramon Service District do hereby express their formal support for the water quality improvement projects listed in the Zone 7 brochure entitled "Water Quality Projects 2005-2015; December 2004"; and

2. That the Zone 7 Water Agency does hereby formally acknowledge the importance of the water quality concerns of the City of Pleasanton and the Dublin San Ramon Services District and commits to implementing the water quality improvements projects shown in the December 2004 brochure referenced in paragraph 1 in a prudent but expeditious manner; and

3. That the City of Pleasanton, the Dublin San Ramon Services District and the Zone 7 Water Agency pledge to work together to explore and identify ways to make further progress to improve the taste and reduce the odor and hardness of the water that is served to all customers; and

4. That City of Pleasanton, the Dublin San Ramon Services District and the Zone 7 Water Agency commit to do this in a way that will not degrade the quality of the water served to other parts of the Zone 7 service area.

5. That the attached "Policy Principles" will guide the City of Pleasanton, the Dublin San Ramon Services District and the Zone 7 Water Agency in developing and implementing projects, programs and operational guidelines related to improving delivered water quality.

City of Pleasanton Resolution No. 05-065
DSRSD Resolution No. 35-05
Zone 7 Water Agency Resolution No. 06-2783

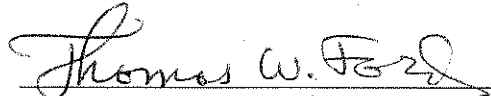
Adopted and passed by the Board of Directors of the Dublin San Ramon Services
District at its regular meeting held on August 2, 2005 by the following vote:

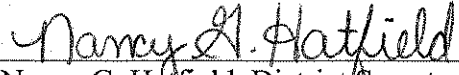
AYES: 5 - Directors Daniel J. Scannell, Richard M. Halket, Jeffrey G.
Hansen, Dwight L. Howard, Thomas W. Ford

NOES: 0

ABSENT: 0

ABSTAIN: 0


Thomas W. Ford, President

ATTEST: 
Nancy G. Hatfield, District Secretary

City of Pleasanton Resolution No. 05-065
DSRSD Resolution No. 35-05
Zone 7 Water Agency Resolution No. 06-2783

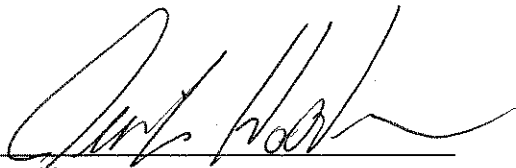
Adopted and passed by the City Council of the City of Pleasanton at its regular meeting held on August 16, 2005 by the following vote:

AYES: Councilmembers – Brozosky, McGovern, Sullivan, Thorne and Mayor Hosterman

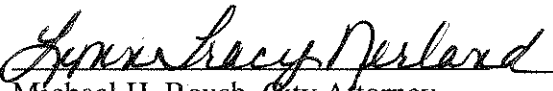
NOES: None

ABSENT: None

ABSTAIN: None


Jennifer Hosterman, Mayor

APPROVED AS TO FORM:


for Michael H. Roush, City Attorney

ATTEST:


Dawn G. Abrahamson, City Clerk

City of Pleasanton Resolution No. 05-065
DSRSD Resolution No. 35-05
Zone 7 Water Agency Resolution No. 06-2783

Adopted and passed by the Board of Directors of the Zone 7 Water Agency at its regular meeting held on August 17, 2005 by the following vote:

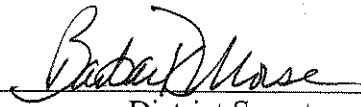
AYES: DIRECTORS CONCANNON, GRECI, KALTHOFF, KOHNEN, MARCHAND, QUIGLEY

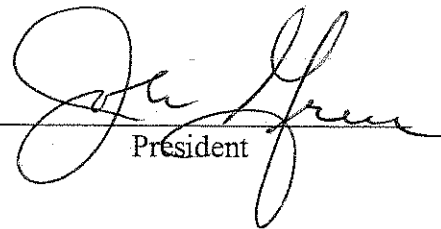
NOES: NONE

ABSENT: DIRECTOR STEVENS

ABSTAIN: NONE

ATTEST:


District Secretary


President

POLICY PRINCIPLES
For
ZONE 7 WATER QUALITY PROGRAM
Related to
IMPLEMENTATION PLAN UPDATE
In the areas of
GENERAL POLICIES
OPERATIONS
FACILITIES
EDUCATION
FUNDING

INTENT

The intent of these Policy Principles is to document the mutual expectations of the policy makers in the Tri-Valley related to the updating and implementation of Zone 7 Water Quality Program and the role of the Retailers in the updating of that program.

ZONE 7 WATER QUALITY PROGRAM

Zone 7 Water Quality Policy, Goals, and Targets, adopted by the Zone 7 Board of Directors in 2003, were developed after extensive discussions with, and in cooperation with, local retail water Contractors, including the California Water Service Company, the Cities of Livermore and Pleasanton, and the Dublin San Ramon Services District, and other interested stakeholders. The adopted Water Quality Policy expressly required that the Water Quality Program Implementation Plan be reviewed and updated at a minimum of every two years to reflect any emerging water quality issues and/or other relevant regulatory and/or technology development, and that, as feasible, any plan updates be incorporated into the annual updates of the Zone 7 Capital Improvement Plan. Zone 7 staff began work on the initial update to the adopted 2003 Implementation Plan in March 2005.

Opinion surveys conducted by Zone 7, the City of Pleasanton, and the Dublin San Ramon Services District show that a substantial number of customers desire feasible improvements to the quality of their water supply.

The following is a brief description of the preliminary Work Plan for the Water Quality Policy and Implementation Plan Update and the anticipated schedule.

Phase I:

Zone 7 staff will prepare an informational item to be presented to the Zone 7 Board of Directors in September, 2005 which will consist of a technical water quality report card. This Phase I Report Card will include graphical presentations of the status of each constituent of concern in relation to the Water Quality Targets, which were specified in the 2003 Zone 7 Water Quality Policy and Implementation Plan, at Retail Contractors'

turnouts. If desired, a similar presentation will be made at the Committee of Valley Water Retailers, which includes the California Water Service Company, the Dublin San Ramon Services District, the City of Livermore, and the City of Pleasanton. (CoVWR) at their annual October meeting.

Phase II:

Beginning in July/August, 2005 and concurrent with the development of the Water Quality Report Card, Zone 7 staff will develop a technical tool box, considering the Policy Principles herein, to assist in identifying and evaluating alternative projects or activities that would enhance Zone 7's ability to meet the Board's adopted Water Quality Policy Goals. For example, based on any data gaps identified in the Phase I Report Card, what could be done to better assess the water quality impacts of ongoing & future planned projects e.g. additional water quality monitoring, data collection, or modeling/forecasting needs for each retailer turnout? Phase II work is expected to be completed in September, 2005.

Phase III:

Initiate discussions in October/November, 2005 with Retail Water Contractors and other stakeholders, as appropriate, to further develop the technical tool box, and to further discuss Policy Principles in an effort to identify mutually acceptable Policies and feasible activities to incorporate into the Water Quality Program Implementation Plan and/or the Zone 7 Water Quality Policy. Phase III is expected to be accomplished within six months of its actual implementation date.

ROLE OF THE RETAILERS

Zone 7 will maintain a regular dialog with the retail agencies at all levels as appropriate throughout the development of the Water Quality Program. The schedule for any discussions will be such that there will be an opportunity for meaningful input from the retailers ahead of any decisions made by Zone 7 staff or Board. DSRSD and Pleasanton will provide input in a timely manner and will encourage the other retailers to do likewise. Zone 7 shall give serious consideration to the comments and suggestions of the Retailers.

POLICY PRINCIPLES

Identified in the following sections are mutually agreeable Policy Principles related to water quality. These Policy Principles will be evaluated in detail during Phase III discussions with Retail Water Contractors, and other interested stakeholders. The staff's of the parties will report back at a combined meeting of the Agencies' policy makers as the proposed method and schedule for adoption of the appropriate Policy Guidelines.

General Policy Principles

1. Reaffirm contractual commitment to provide aesthetically acceptable water and to blend Zone 7's different water sources within its operational capabilities to provide approximately equal quality water to each of the retailers.
2. Support the water quality projects in Zone 7's four-page brochure entitled "Water Quality Projects 2005-2015, December 2004".
3. Support and cooperate with development and implementation of the Salt Management Program.
4. Program and Project recommendations must not result in any degradation of the existing delivered water quality for east side retailers.
5. Each liaison committee (Pleasanton-Zone 7; Pleasanton-DSRSD and DSRSD-Zone 7) will receive a common staff report from the managers of each agency every six months on the status of the various efforts called for within these Policy Principles; those liaison committees may call for separate or combined liaison meetings to discuss the status reports.

Operational Principles

1. Examine Zone 7 and retailer operating practices over time (summer to winter, day to day and at individual turnouts to the retailers), at both present and future facilities, that could be feasibly optimized to improve, and to better equalize delivered water quality.
2. Establish operations guidelines for Zone 7 wells, that without compromising overall system reliability, would be consistent with the goals of delivering aesthetically acceptable water to retailers' turnouts, and improving and, to the extent possible, equalizing delivered water quality.
3. Study operational capacities of water treatment plants and transmission facilities to maximize deliveries of treated surface water to retailer turnouts.
4. Examine the practical extent to which wells with demineralization capabilities can be preferentially operated before wells without demineralization capabilities, without compromising overall water system reliability.

Facilities Principles

1. Implement all projects in the 4 page Water Quality brochure on the schedule shown to the maximum extent possible among which are projects that will improve the hardness, taste and odor of water delivered to the west side retailers.
2. Identify and evaluate the potential effectiveness and feasibility of constructing new facilities (pipelines, pumping facilities etc.) to minimize variations in

delivered water quality, to improve overall delivered water quality, and to better equalize delivered water quality.

3. Examine the feasibility of installing treatment facilities at individual turnouts to improve and to better equalize the water quality delivered to individual retailers
4. Examine the feasibility of "point of use" treatment devices or facilities in localized areas.
5. Examine alternative means to deliver treated surface water from any of the treatment plants to points closer to retailer turnouts so as to better balance surface water deliveries to each retailer.
6. Support those taste and odor improvement projects that will benefit east side retailers.

Educational Principles

1. Develop joint educational material for the public regarding local water supplies, emphasizing all the actions taken and to be taken to improve water quality, including how those actions affect each retailer.
2. Develop joint educational material describing the benefits of the Salt Management Program.

Funding Principles

1. Identify and evaluate the most appropriate alternatives to equitably fund the capital and operating costs needed to improve water quality.
2. Provide bi-annual reports to the community describing the condition of Zone 7 water system assets, actual and proposed uses of Asset Management Program (AMP) Funds, AMP fund balances, and the ability of the Asset Management Fund to meet the needs for which it has been established.

Appendix B

2011 ASSET MANAGEMENT PROGRAM UPDATE

BOARD RESOLUTION

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 11-4092

INTRODUCED BY DIRECTOR MACHAEVICH
SECONDED BY DIRECTOR QUIGLEY

Resolution for Acceptance of Asset Management Plan Update

WHEREAS, the Asset Management Program was originally developed in 2004 and those efforts were summarized in the October 2004 Asset Management Program Summary Report; and

WHEREAS, Zone 7 has recently updated the Asset Management Program through the Asset Management Program Update Project, which included an update of Zone 7's asset inventory, a revised asset renewal methodology, formalized decision processes, an asset condition assessment and pipeline risk assessment, modified asset classes and corresponding useful life estimates, and a recommendation of an annual funding level to adequately fund this program; and

WHEREAS, Zone 7 has summarized its efforts in updating this program in the 2011 Asset Management Plan Update Report.

NOW, BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby accept the Asset Management Plan Update Report with the revised funding recommendations incorporated; and

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby adopt the recommended funding transfer targets from the Water Enterprise Fund (Fund 52) into the Renewal/Replacement and System-wide Improvements Fund (Fund 72) for the future as follows:

\$6,600,000 in Fiscal Year 2012/2013;
\$8,500,000 in Fiscal Year 2013/2014;
\$9,500,000 in Fiscal Year 2014/2015;
\$10,500,000 in Fiscal Year 2015/2016; and

the total annual funding requirement beginning in Fiscal Year 2016/2017 and beyond, is \$11,400,000 in 2011 dollars, which will be adjusted for other sources of revenue (e.g., actual interest income and Dougherty Valley Service Area facility use fees), increased for inflation based upon the ENR San Francisco Construction Cost Index and adjusted based on future AMP Updates.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS GRECI, FIGUERS, MACHAEVICH, PALMER, QUIGLEY, STEVENS

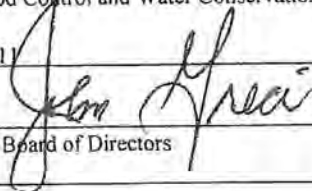
NOES: NONE

ABSENT: DIRECTOR MOORE

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on

June 15, 2011

By 
President, Board of Directors

Appendix C

WATER SYSTEM PROJECT PRIORITIZATION CRITERIA

WATER SYSTEM PROJECT PRIORITIZATION CRITERIA

1.	REGULATORY COMPLIANCE AND SAFETY			
	Description:	The water industry is subject to Federal, state, and local regulations (e.g., OSHA, RWQCB, DPH, ACDEH, etc.). New or more stringent regulations typically require an investment in capital facilities for replacement or upgrading. This criterion is intended to support the importance of meeting or exceeding these regulations. Examples of projects that address regulatory compliance include those that: eliminate endangerment to life (i.e., health and safety); ensure that compliance is maintained or increase ability to comply with regulations; minimize risk of fines; or implement treatment upgrades to meet drinking water standards.		
	Scoring:	Criteria is not applicable to this project, or regulatory requirements are being met	0	
		Current regulatory requirements are being met, and project will provide conformance with guidance, goals, or practices as recommended by the regulatory agency	1	
		Current regulatory requirements are being met, but proposed regulations may not be met without project	2	
		Current regulatory requirements will no longer be met if project is not implemented	3	
		Current regulatory requirements are not being met, which may or may not have resulted in a regulatory violation, and compliance will be achieved by project	Mandatory*	
	Weight:	25%		
	* If a project meets this criteria level, then it must be implemented (i.e., is not discretionary) and does not need to be scored.			

2.	RELIABILITY			
	Description:	Zone 7's reliability goal is described in Goal 2 of the Reliability Policy for Municipal & Industrial Water Supplies (Resolution No. 04-2662). This criterion is intended to support the importance of providing for reliability of Zone 7's water supply, production capacity, and transmission system capacity. Examples of projects that address reliability include those that: eliminate current or potential facility failures; increase lifespan of a facility; replace a facility that is beyond its useful life; increase redundancy in the system; address seasonal criticality issues; or improve emergency operations.		
	Scoring:	Criteria is not applicable to this project, reliability is not affected by project, or project maintains existing reliability	0	
		Reliability goal is currently being met and project will further increase reliability	1	
		Reliability goal may no longer be met if project is not implemented	2	
		Reliability goal is not being met and will be achieved by project	3	
	Weight:	20%		

3.	CAPACITY			
	Description:	Zone 7's capacity goal is described in Goal 1 of the Reliability Policy for Municipal & Industrial Water Supplies (Resolution No. 04-2662). This criterion is intended to support the importance of sustaining or increasing Zone 7's water supply capacity, production capacity, and transmission system capacity. Examples of projects that address capacity include those that: remove process limitations or system constraints; increase capacity of the facility; or provide additional capacity to meet future demand.		
	Scoring:	Criteria is not applicable to this project, capacity is not affected by project, or project maintains existing capacity	0	
		Capacity goal is currently being met and project will provide additional capacity to meet future demand (for the long-term)	1	
		Capacity goal will no longer be met (in the near-term) if project is not implemented	2	
		Capacity goal is not being met and will be achieved by project	3	
	Weight:	20%		

4.	AESTHETIC WATER QUALITY			
	Description:	Zone 7's water quality goals are described in the Water Quality Management Program Implementation Plan and Salt Management Plan. This criterion is intended to support the importance of improving aesthetic water quality of the delivered water. Examples of projects that address aesthetic water quality include those that: improve the ability to meet secondary drinking water standards such as taste and odor (not regulation driven); reduce hardness levels; maintain or improve the water quality in the groundwater basin; or improve water quality delivered to non-potable customers.		
	Scoring:	Criteria is not applicable to this project, or aesthetic water quality is not affected by project	0	
		Aesthetic water quality goals are currently being met and project will further improve water quality	1	
		Aesthetic water quality goals may no longer be met if project is not implemented	2	
		Project is recommended in the Water Quality Management Program Implementation Plan and/or Salt Management Plan	3	
	Weight:	15%		

5.	EASE OF OPERATION			
	Description:	This criterion is intended to support the importance of improving ease of operation and staff productivity. Examples of projects that address ease of operation include those that: reduce labor requirements; increase ease and efficiency of operations and maintenance; standardize operations and maintenance procedures; automate processes to increase accuracy (e.g. improves meter reading) or efficiency of the system; improve operational flexibility; improve process control; or improve ability to monitor operations at the facilities.		
	Scoring:	Criteria is not applicable to this project, or ease of operation is not affected by project	0	
		Current level of ease, efficiency, or flexibility of operations and maintenance is satisfactory, and project will improve upon that	1	
		Current level of ease, efficiency, or flexibility of operations and maintenance is not satisfactory, and project will bring it to a satisfactory level; or, current level is satisfactory, but may no longer be maintained if project is not implemented	2	
	Weight:	10%		

6.	LIFE-CYCLE COSTS			
	Description:	This criterion is intended to support the importance of advancing cost-effective projects or reducing overall project costs. It would give priority to projects that reduce future costs or are cost-justified. Examples of such projects include those that: provide automation that results in reduced labor costs; or install energy efficient equipment where the cost of the project is recovered from reduced future energy costs.		
	Scoring:	Criteria is not applicable to this project, life-cycle costs are unchanged by project, or life-cycle costs are increased by project	0	
		Project results in future cost savings	1	
		Project payback is 5 years or less**	2	
		Project payback is 2 years or less**	3	
	Weight:	5%		
	**This criteria level should be supported by calculations from a payback analysis.			

7.	SECURITY			
	Description:	This criterion is intended to support the importance of maintaining or improving the security level at Zone 7's various facilities, including the treatment plants, transmission system, and administration office. Examples of projects that address security include those that: control public access to a facility; improve the ability to monitor a facility for security; or increase emergency operations coordination for Zone 7.		
	Scoring:	Criteria is not applicable to this project, or security is not affected by project	0	
		Security needs are currently being met and project will further increase security	1	
		Security needs may no longer be met if project is not implemented	2	
	Weight:	5%		

Appendix D

ZONE 7 WATER AGENCY STRATEGIC PLANNING PRIORITIES

Zone 7 Water Agency

Strategic Planning Priorities



March 31, 2010

Introduction

This document is intended to be a quick reference to Zone 7 Water Agency's *Strategic Planning Priorities* identified by the Board of Directors with input from members of the staff.

Establishing *Strategic Planning Priorities* enables Zone 7 to focus on its most immediate needs in an efficient and cost-effective manner. Participation of employees and the retailers not only improves the process and ultimate work product but it also helps secure their support for what the Agency needs to accomplish to effectively serve the public and comply with its mission statement. Ranking the strategic priorities helps Zone 7 staff know where to focus its attention in a sea of too many priorities to possibly address at the same time. The first review by the Board of Directors and Executive Staff of the strategic planning priorities and projected completion dates of deliverables will occur at the July 2010 board meeting and will help ensure that tasks are finished, continue to be pursued, or adjusted as circumstances may require.

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Appendix D: Summary Analysis of Online Strategic Planning Questionnaire

Appendix E: Senior Staff Interviews Responses

Appendix F: Board and Executive Staff Workshop Agenda

Appendix G: Draft Strategic Planning Priorities Working Document

Strategic Planning Priorities

Zone 7 Water Agency's Strategic Planning Priorities are in support of its mission statement that was developed during a Board of Directors workshop several years ago and is considered still very relevant.

Zone 7 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 the water resources in a fiscally responsible, innovative, proactive, and environmentally responsible way.

The five general priorities headings under which more specific strategic planning priorities are listed are not placed in any particular order of importance. The strategic planning priorities under each general heading, however, are listed in importance as identified by the Board of Directors and the Executive Staff as constituted at the time. Some priorities that were not scored by the Board and Executive Staff as being “given” (meaning they are obviously a priority), have been moved to a higher position on the list. See Appendix B – Background Information for more details about the ranking process.

Assist retailers in providing their customers with a reliable, cost-effective and safe water supply.

- 1.1 Provide safe, adequate, reliable, low-cost drinking water to the retailers for their customers and Zone 7's constituency.
- 1.2 Comply with all water quality regulatory requirements.
- 1.3 Operate and maintain, and upgrade and/or replace when appropriate, existing treatment plants, transmission facilities and other infrastructure.
- 1.4 Protect and properly manage groundwater supplies.
- 1.5 Continue to work with other South Bay Aqueduct contractors to explore possible advantages of increased opportunities for local water storage (e.g., Los Vaqueros) or partnership in regional water supply projects (e.g., Delta Diablo Sanitation District's Regional Desalination Project, which could provide an alternate intake for the South Bay Aqueduct).
- 1.6 Work with retailers to develop more local water supplies, including (conservation and)* the use of more recycled water.
- 1.7 Participate in Delta discussions to protect the Agency's contractual water supply from the State Water Project.
- 1.8 Fulfill contractual water supply obligations.
- 1.9 Review water reliability policy.
- 1.10 Continue implementation and development of planning for the Chain of Lakes.
- 1.11 Plan, design and construct new water treatment plants and transmission facilities as they become necessary.
- 1.12 Balance improving water quality with fiscal constraints.
- 1.13 Update long-term water supply planning, especially in light of the Delta crisis.

***to be recommended**

Provide the valley with an effective system of flood protection.

- 2.1 Continue the stream maintenance program to maintain the effectiveness of flood protection facilities.
- 2.2 Revisit the SMMP and StreamWISE in light of current and long-term fiscal constraints.
- 2.3 Collaborate with cities and landowners on flood protection improvements (e.g., Livermore on the El Charro Development Project).
- 2.4 Continue implementation and development of planning for the Chain of Lakes.
- 2.5 Cooperate and collaborate where necessary and beneficial with various state and federal agencies in fisheries restoration and related environmental enhancement efforts.
- 2.6 Consider alternative funding sources for the SMMP.
- 2.7 Incorporate any implementation of the SMMP into the CIP.
- 2.8 Obtain multi-year programmatic permit and engineering report for stream maintenance.

3 Provide the Agency with effective organization, administration and governance.

- 3.1 Evaluate staff organization in light of changing work functions and demands.
- 3.2 Continue to evaluate and, if beneficial, separate some functions from the County.
- 3.3 Develop a succession plan to ensure continued effective management and operations of the Agency upon retirements or other departure of key staff, while being mindful of reorganization opportunities that might be created by attrition.
- 3.4 Improve internal communications.
- 3.5 Reevaluate the functions of the Board, committee structure and possibility of greater political activity.
- 3.6 Work with community colleges and water agency associations in efforts to ensure sufficient operator staff to offset anticipated retirements.
- 3.7 Increase staff productivity and effectiveness with greater use of modern technology, software, etc.
- 3.8 Develop a digital-based, integrated and remotely accessible database of engineering plans and drawings, project management data linked to cost factors, and other correspondence and information.

4 Operate the Agency in a cost-effective manner.

- 4.1 Complete an Agency Financial Plan.
- 4.2 Evaluate the cost/benefits of bringing in house certain functions traditionally performed by the Zone's consultants and contractors.
- 4.3 Continue to participate in regional and other efforts to obtain state and federal grant funds to offset the cost of new facilities and programs.
- 4.4 Review procurement, contracting and other practices to see where more cost savings can be obtained.

5 Improve public understanding of the Agency and the challenges it faces with respect to accomplishing its core functions of water supply and flood protection.

- 5.1 Continue other public outreach efforts and increase collaborative efforts with retailers.
- 5.2 Include water conservation emphasis in all of the Agency's public information efforts.
- 5.3 Improve the effectiveness of the Agency's website in communicating Zone's messages to the public.
- 5.4 Maintain and improve the Agency's media relations program.
- 5.5 Maintain an effective schools program, placing more responsibility on the retailers for educating their own customers.
- 5.6 Evaluate the use of other Internet-based and other technology to convey the Agency's messages



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: FINANCE/INTEGRATED PLANNING
CONTACT: JAVIA GREEN/AMPARO FLORES

AGENDA DATE: October 19, 2011

ITEM NO. 10

SUBJECT: 2011 Municipal & Industrial Connection Fee Program Update

SUMMARY:

- Zone 7 Water Agency established the Municipal and Industrial (M&I) Connection Fee Program in 1972 to assess connection fees to new development and fund the Water System Expansion Program, which is required to serve additional water demands generated from new development. A program update is performed periodically to incorporate the most recent planning and project data available.
- The purpose of the 2011 M&I Connection Fee Program Update is to verify that Zone 7's connection fees represent the reasonable costs of providing service to new customers. The planning horizon for this update is from FY 12/13 through FY 39/40 (buildout).
- Based on the update, and the application of inflationary adjustments to the connection fees, staff has determined that Zone 7's connection fees represent the reasonable costs of providing service to new customers. Staff is therefore recommending an inflationary adjustment to the current fees based on the change in the ENR CCI from September 2010 to September 2011 (3.2%). The resulting fees would be \$22,930 per 5/8-inch connection (Dwelling Unit Equivalent or DUE) within Zone 7's Alameda County service area and \$21,230 for the Dougherty Valley service area to be effective on January 1, 2012.
- Staff also evaluated the Dougherty Valley Facility Use Fee. In accordance with the methodology set forth in the agreement between Zone 7 and Dublin San Ramon Services District, the fee is adjusted for inflation based on the change in the ENR CCI between December 1997 and October 2011 (most recent data available for 2011). Staff recommends increasing the fee to \$2,890 per DUE, a 17.5% increase from the current fee. The new fee would become effective on January 1, 2012.
- For more details on the 2011 M&I Connection Fee Program Update, the Final Draft 2011 M&I Connection Fee Program Update Report is attached.

FUNDING:

M&I connection fee revenues accrue to Fund 73 – Expansion.

RECOMMENDED ACTION:

Adopt the attached resolutions:

1. 2011 M&I Connection Fee Program Update and Connection Fees for the Alameda County and Dougherty Valley Service Areas Effective January 1, 2012
2. Dougherty Valley Facility Use Fee Effective January 1, 2012

ATTACHMENTS:

1. Final Draft 2011 M&I Connection Fee Program Update Report
2. Resolutions

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY
SECONDED BY

2012 MUNICIPAL AND INDUSTRIAL (M&I) CONNECTION FEES

WHEREAS, a Water Connection Fee Program for Zone 7 of the Alameda County Flood Control and Water Conservation District was adopted by District Ordinance No. FC 72-1 on January 18, 1972 and was subsequently amended by Ordinances Nos. FC 77-2, FC 86-136, and FC 0-91-68; and

WHEREAS, said Ordinance provides that the water connection fee is subject to periodic review and modification at the discretion of the Board of Directors of Zone 7; and the Board resolved with the 2002 amended connection fee (Resolution No. 02-2450) that the basic fee be updated, at a minimum, based on the Engineering News Record Construction Cost Index, or other appropriate index on a yearly basis or as otherwise warranted, to keep current with inflation and that the connection fee program be comprehensively reevaluated every three years or sooner as needed; and

WHEREAS, Zone 7 completed the 2011 M&I Connection Fee Program Update to incorporate the latest information on planning projections and Zone 7's Capital Improvement Program with the planning horizon covering Fiscal Year 2012/2013 through Fiscal Year 2039/2040 (buildout).

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Zone 7 does hereby adopt the 2011 M&I Connection Fee Program Update Report.

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 amend the basic fee for a standard 5/8-inch meter within the Zone 7 Alameda County service area to \$22,930 and \$21,230 within the Dougherty Valley Service Area.

BE IT FURTHER RESOLVED that said basic fee as amended herein shall become effective January 1, 2012, and remain in effect until such time as the Board establishes a new basic fee for Zone 7.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on

October 19, 2011

By: _____
President, Board of Directors

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY
SECONDED BY

DOUGHERTY VALLEY FACILITY USE FEE

WHEREAS, in February 2000, Zone 7's Water Supply Contract with the Dublin San Ramon Service District (DSRSD) was amended to expand the Zone 7 service area to include Dougherty Valley (Amendment No. 1); and

WHEREAS, said Amendment established the Dougherty Valley Facility Use Fee, which DSRSD pays to Zone 7 as new connections in the Dougherty Valley Service Area are permitted; and

WHEREAS, the fee was set at \$1,850 per new basic connection of a 5/8 inch meter (Dwelling Unit Equivalent or DUE) effective January 1, 2002; and

WHEREAS, it was agreed that the first adjustment to the fee should go into effect no earlier than five years following issuance of the first building permit for development in the Dougherty Valley Service Area (January 2002) and that subsequent adjustments shall occur at five-year intervals thereafter; and

WHEREAS, Amendment No. 1 specifically states that Zone 7 shall adjust the fee as specified by multiplying \$1,850 by the Adjustment Index, which is calculated based on Engineering News Record Construction Cost Index (ENR CCI) data for 1997 and the year before the new fee becomes effective; and

WHEREAS, the Adjustment Index, based on ENR CCI for December 1997 and October 2011, is equal to 1.5614.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Zone 7 does hereby amend the Dougherty Valley Facility Use Fee per DUE to \$2,890; and

BE IT FURTHER RESOLVED that said Dougherty Valley Facility Use Fee as amended herein shall become effective January 1, 2012, and remain in effect until such time as the Board establishes a new fee for Dougherty Valley.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on

October 19, 2011

By: _____
President, Board of Directors

Zone 7 Water Agency 2011 Municipal & Industrial (M&I) Connection Fee Program Update



Prepared by Zone 7 Staff



Draft Version: October 12, 2011

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APPENDICES

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Executive Summary

Background

Connection Fee Ordinance

In January 1972, the Alameda County Board of Supervisors adopted Ordinance No. FC 72-1, pursuant to the Alameda County Flood Control and Water Conservation District Act (included as **Appendix A**). This ordinance allowed Zone 7 to impose a connection fee to finance water system improvements within the Zone 7 service area to meet future water supply needs. These water connection fees are subject to the provisions contained in California Government Code Sections 66013 and 66016. The provisions in Government Code Section 66013 define Zone 7 water connection fees as follows:

“(a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections...or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.”

“(b) As used in this section: “Water connection” means the connection of a structure or project to a public water system, as defined in subdivision (f) of Section 116275 of the Health and Safety Code.”

Revenues collected from water connection fees are maintained in a separate account (Fund 73) in Zone 7's accounting system. While Zone 7 serves both M&I customers and agricultural customers, the connection fees discussed in this document only apply to M&I customers. Zone 7 will not have any new direct retail customers through buildout; therefore, new connections will derive from the Retailers' service areas.

Purpose of the 2011 Municipal and Industrial (M&I) Connection Fee Program Update

The Municipal & Industrial (M&I) Connection Fee Program was established to ensure that Zone 7 is able to fund the necessary projects under Zone 7's Water System Expansion Program, which serves new growth in Zone 7's service area. The purpose of this update is to verify that Zone 7's connection fees represent the reasonable costs of providing service to new customers. To that end, the 2011 M&I Connection Fee Program Update undertook a comprehensive re-evaluation of the projected population growth, demands, and new connections in the Zone 7 service, and the necessary water system expansion projects to meet the needs of future customers. Any changes to Zone 7's water resources, facilities, and policies since the last major update in 2006 that had an impact on water system expansion needs were incorporated in the update. Since the last update, Zone 7 has undertaken a number of key planning studies, which are described in Chapter 3. One

particularly important planning document that defined the updated Water System Expansion Program is the 2011 Water Supply Evaluation completed in July 2011.

The planning horizon for this update is from Fiscal Year 2012/2013 (FY 12/13) through buildout, which is projected to occur between FY 34/35 and FY 39/40. Revisions in the projected number and timing of connections over this time period have a significant impact on the development of the Water System Expansion Program. Such revisions arise from various factors. Most notably, in the last few years, the economic downturn has delayed projected residential, commercial and industrial development, resulting in a slower growth in the number of new connections than was previously anticipated.

Overview of Connection Fee Calculation Methodology

In general, development of the Zone 7 M&I water connection fees begins with an analysis of the projected populations, and the associated new connections and water demands over the planning horizon. In parallel, the Water System Expansion Program is developed with the objective of implementing the capital improvement projects necessary to meet projected demands. The funding requirements of the Water System Expansion Program, along with the projected number of connections, is used to calculate the appropriate connection fee. The timing of project implementation is determined based on a number of factors: 1) meeting the demand needs over time, 2) ability to meet Zone 7's policy of funding expansion projects with pay-as-you-go financing to minimize risk to existing customers, and 3) maintenance of adequate fund balances to cover 50% of the following year's non-discretionary obligations. This methodology ensures that the connection fees charged to customers reflect reasonable costs to Zone 7, as required by the Connection Fee Ordinance No. FC 72-1. For Zone 7's service area, two distinct Connection Fees are calculated: one for connections in Alameda County (administered by the Cities of Pleasanton and Livermore, Cal Water, and DSRSD) and one for Dougherty Valley (administered by DSRSD). In addition, new Dougherty Valley customers pay a Facility Use Payment (or Fee), which is assessed to compensate Zone 7 for use of its existing facilities. The terms for the determination of the Dougherty Valley Connection Fee and the Facility Use Fee are described in the *Amendment No.1 to Contract Between Zone 7 Water Agency And Dublin San Ramon Services District for Municipal Water Supply*.

Growth in the Areas Served by Zone 7

Population Growth

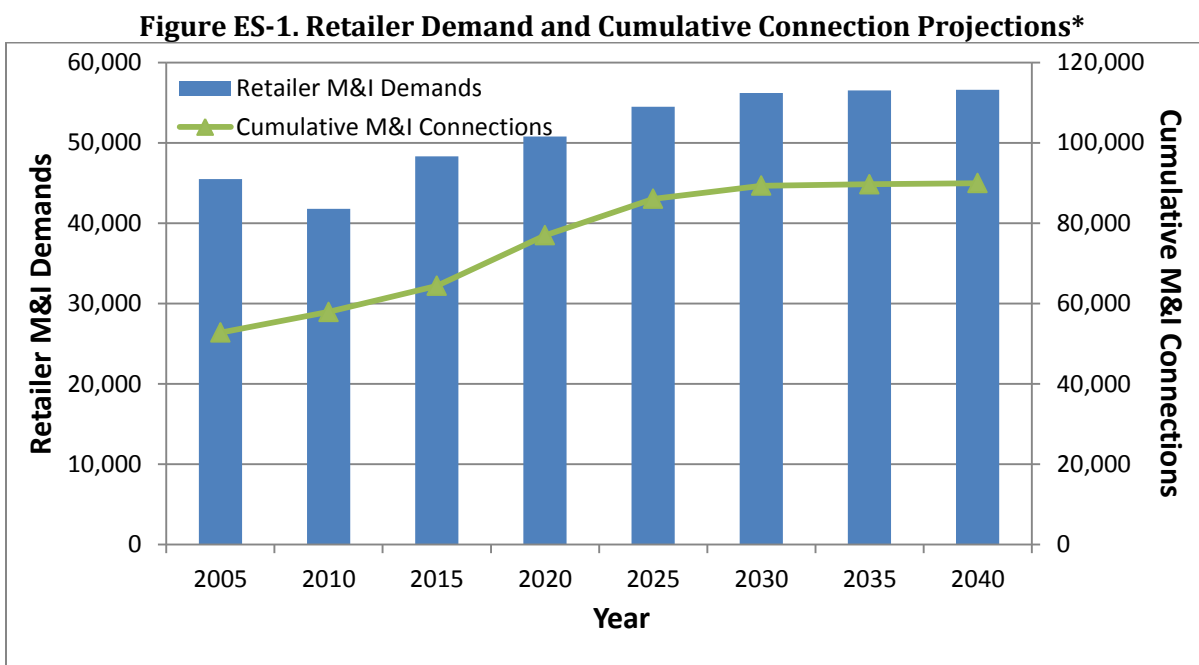
The latest population projections for the Zone 7 service area were derived from the Retailers' 2010 Urban Water Management Plans. Overall, a 32% population growth is expected in the Zone 7 service area over the next 30 years to a buildout population of 299,000 people.

Demand Growth and New Connections

Figure ES-1 shows the projected total water demands¹ by the Retailers between 2015 and 2040 as derived from the Retailers' 2010 UWMPs. The actual demands from 2005 and 2010 are also included for comparison. New connections in the Zone 7 service area will serve a variety of

¹ These demands are the most recent data provided by the Retailers as of July 2011. They only include deliveries to the Retailers, and do not include deliveries to Zone 7's direct retail customers and untreated water customers.

customers and a range of demands utilizing various meter sizes. Connection projections are normalized based on Dwelling Unit Equivalents (DUEs), which represent the 5/8-inch meter typically used in a single-family residential home. The projected cumulative connections in DUEs over time through 2040 are also shown on **Figure ES-1**. From FY 10/11 through buildout (FY 39/40), 32,070 new DUEs are expected.

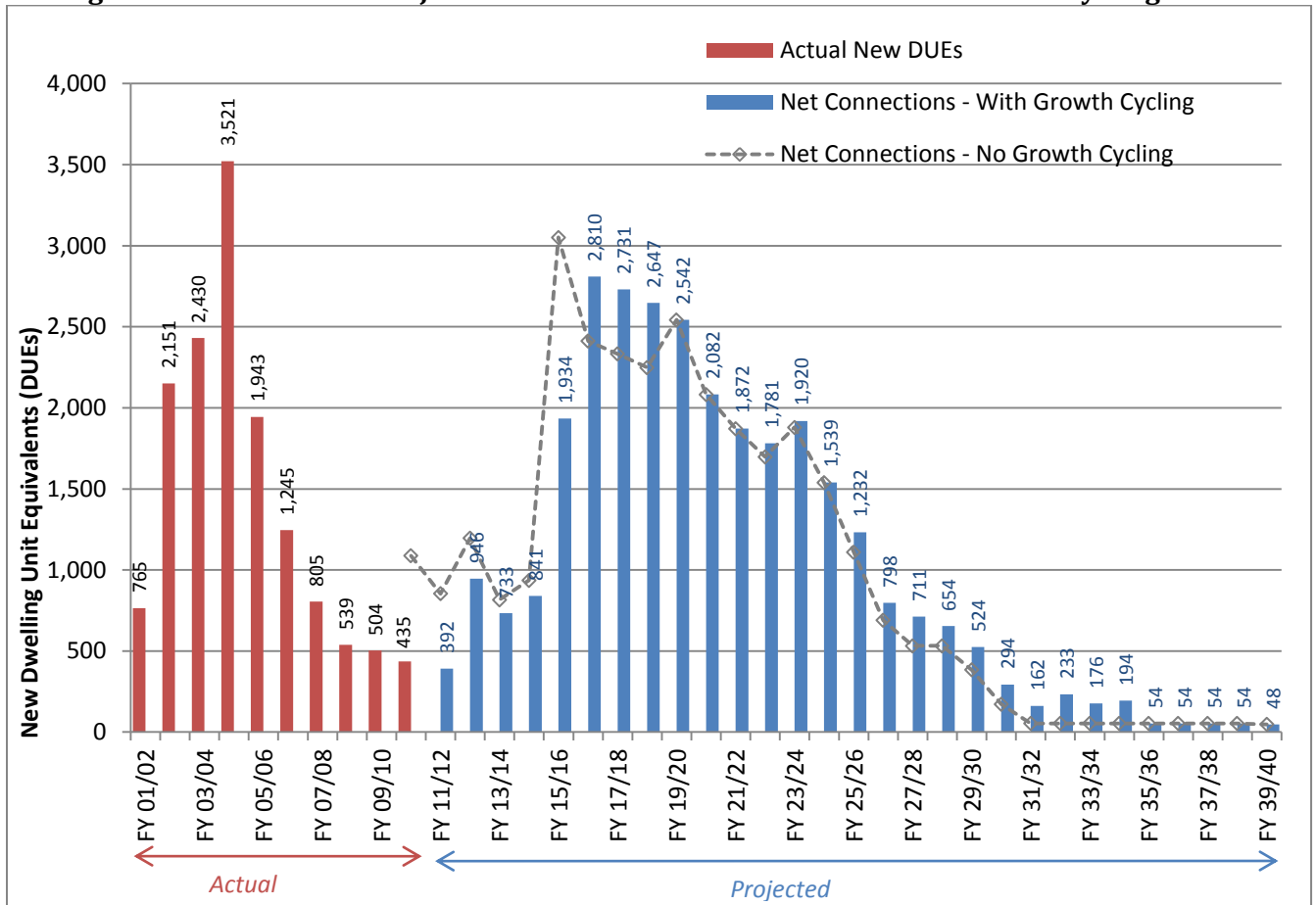


*Reference: Retailers' 2010 UWMPs. These demands only include deliveries to the Retailers, and do not include deliveries to Zone 7's six direct retail customers and untreated water customers.

Connections Used for Connection Fee Calculations

To determine the number of new connections for use in the connection fee calculations, the gross estimate of 32,070 new connections from FY 10/11 through buildout was adjusted to subtract connections that have been prepaid (i.e., connection fees have been paid but the construction may not have occurred yet) and credits (i.e., new connections at Arroyo Vista that replace existing potable water connections). With the adjustments, the new connections producing revenue ("net connections") total 30,446 DUEs. In addition, to account for the uncertainty in the rate of development, growth cycling was applied to the net connections. This effectively incorporates some conservatism in Zone 7's planning for expenditures related to capital projects, giving better assurance that funds will be available when they are needed. The yearly totals of net connections with growth cycling—which were used for the revenue projection analysis—are shown on **Figure ES-2**. For comparison, the actual connections from FY 01/02 through FY 10/11 are also shown. Note a peak in connections of 3,521 DUEs in FY 04/05, which indicates a peak annual connection of 2,810 DUEs in FY 16/17 is feasible.

Figure ES-2. Actual and Projected Net Connections with and without Growth Cycling*



*Net connections are calculated from the gross connections adjusted for prepaid connections and credits. Net connections with growth cycling were used for the revenue projections. This growth cycling concept assumes only 70% of the first five years' projections occur at that time and the remaining 30% occur over FY 25/26 through FY 34/35. The FY 10/11 value was set to the actual value, and the difference in projected versus actual for FY 10/11 was spread over the following three years. The peak in FY 15/16 was also spread over four years.

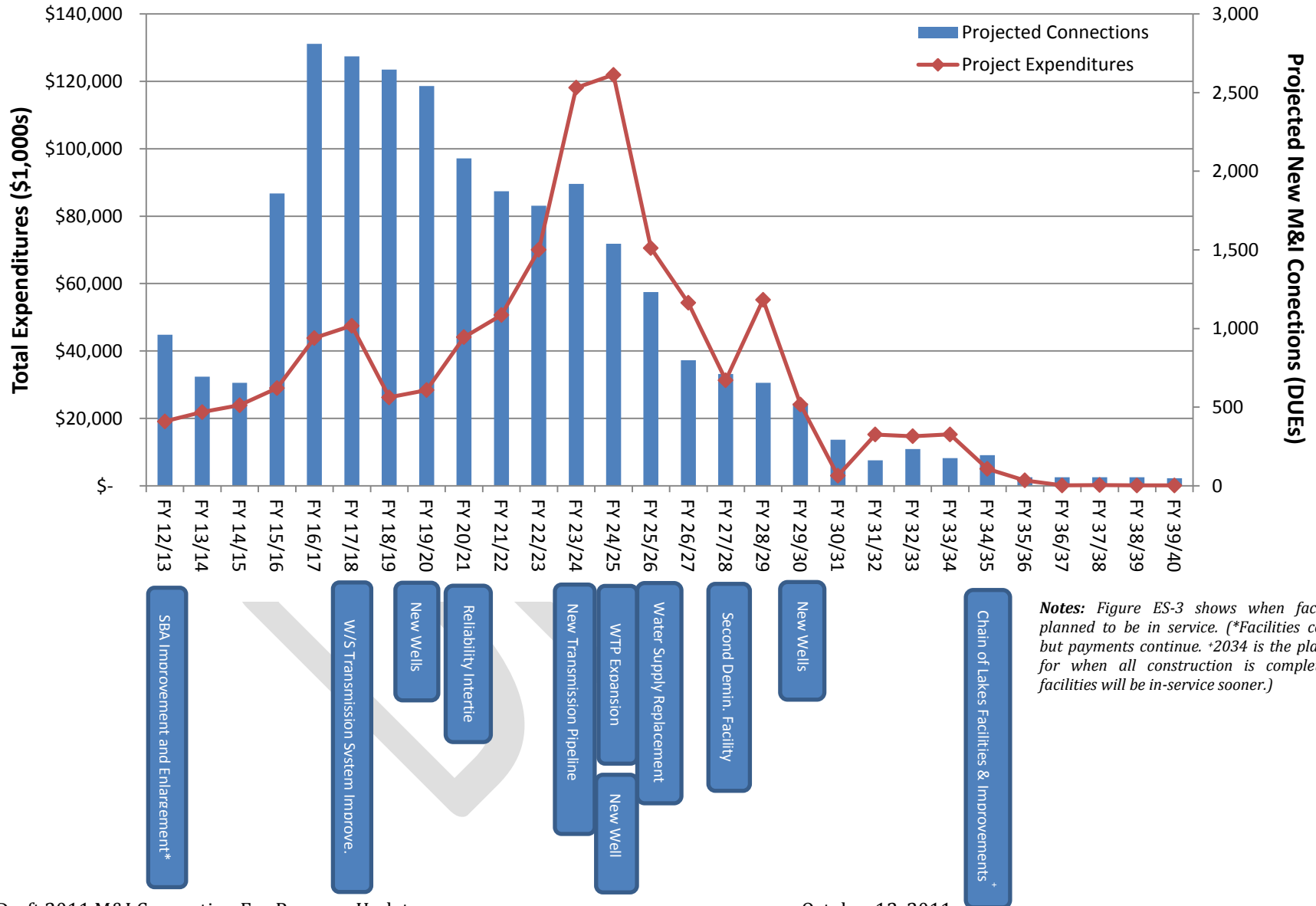
Fund 73 - Water System Expansion Program

Zone 7's Water System Expansion Program (Program)—which is part of Zone 7's overall Capital Improvement Program (CIP)—is designed to meet future demands on Zone 7's water system and is therefore funded through connection fees (designated as Fund 73). The development of the Program is shaped by policies set by the Board of Directors pertaining to water supply and reliability, groundwater basin management, and water quality. Zone 7 staff performs planning studies to determine what types of facilities and supplies ("projects") are needed over time to meet demand growth in accordance with these policies. Cost estimates are then developed for these facilities and supplies; costs for those facilities and supplies that serve both existing and new customers are allocated to the customers in proportion to the benefits they receive. Furthermore, some projects have both water supply and flood control benefits; costs are allocated to reflect this since flood control has a separate funding source. Based on the Agreement between Zone 7 and DSRSD, customers in Dougherty Valley do not pay for those projects related to water acquisition

and non-local groundwater storage because Dougherty Valley customers pre-purchased their water supply and storage.

Forty-two projects funded in whole or in part by Fund 73 with a total funding need of \$1,069,388,000 (including contingency and connection fee administration) through FY 39/40 have been identified. **Figure ES-3** shows the projected new connections and expenditures over time, and the major facilities to be constructed to meet demand growth. Major facilities, particularly the Water Treatment Plant (WTP) Expansion, are planned to be in-service around 2022 to 2025, as reflected by the peak in expenditures during that time period. The results from the 2011 WSE indicate that new treatment capacity will be needed around this time period in order to meet Maximum Day Demands. Zone 7 will continue to update its CIP every two years and changes in demands and available funding will be incorporated into the ultimate scheduling of project construction; projects intended to meet new demands will be shifted according to when those demands are expected.

Figure ES-3. Connections, Project Expenditures, and Major New Facilities



Notes: Figure ES-3 shows when facilities are planned to be in service. (*Facilities constructed but payments continue. *2034 is the planned year for when all construction is completed. Some facilities will be in-service sooner.)

Connection Fee Determination

A financial model was developed by Zone 7 staff based on the projected revenue stream and expenditures to develop a connection fee structure suitable to finance the Water System Expansion Program (Program). Connection fees, based on DUEs, have historically been designed to fund all Program costs with the goal of 100% pay-as-you-go financing with connection fees and interest income earned on reserves in order to minimize risk to existing rate payers². Zone 7 also has a goal of maintaining a minimum fund balance based on 50% of non-discretionary obligations for the following year. These requirements need to be met in setting connection fees. The Board-approved connection fees for 2011 are presented in **Table ES-1**. As previously mentioned, Dougherty Valley does not pay for those projects related to water acquisition and non-local groundwater storage; a separate fee is therefore determined for Dougherty Valley. For the 2011 M&I Connection Fee Program Update, Zone 7 staff determined that *Zone 7's connection fees represent the reasonable costs of providing service to new customers*. This update recommends an increase based on the Engineering News Record Construction Cost Index (ENR CCI) to account for the impact of inflation on future projects. For the 2012 fees, staff recommends adjusting the current fees to keep pace with inflation, based on the change in the ENR CCI from September 2010 to September 2011. **Table ES-1** shows the connection fee estimates for 2012.

Table ES-1. Adopted Connection Fees for 2011 and Recommended Connection Fees for 2012

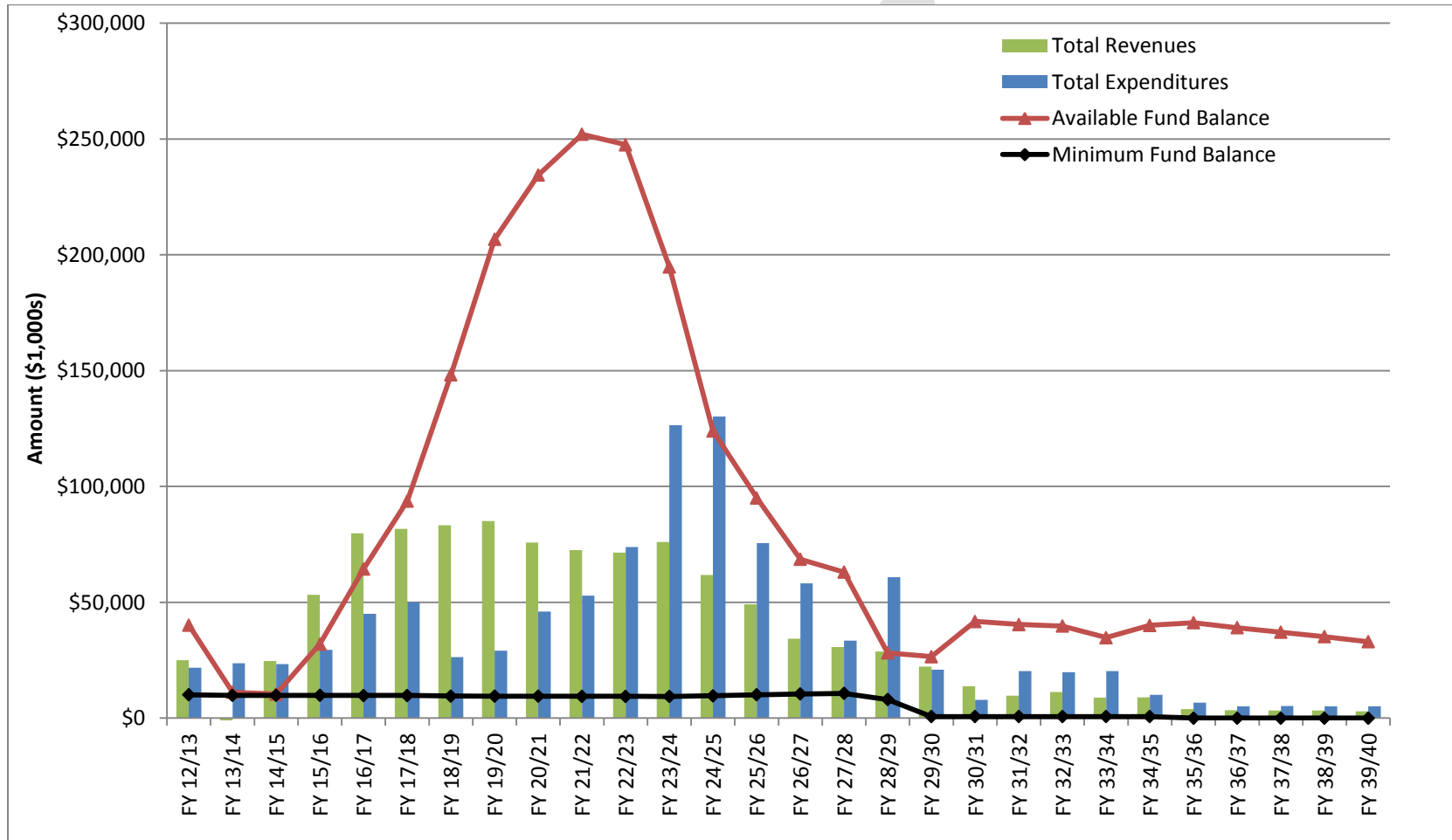
Effective Period	Alameda County (\$/DUE)	Dougherty Valley (\$/DUE)
Effective January 1, 2011	\$22,230	\$20,580
Recommended to be effective January 1, 2012 (3.2% Increase*)	\$22,930	\$21,230

* Based on the change in the ENR CCI from September 2010 to September 2011.

Figure ES-4 shows the preliminary funding outlook for the Expansion Fund. It includes total expenditures (project expenditures, contingency, and administration fees), total revenues, fund balances, and the minimum fund balances for each year.

² A recent exception is the \$60M Installment Sale Agreement (short-term loan) with Wells Fargo to pay for a portion of Altamont Water Treatment Plant and Pipeline project. To fund the Altamont Pipeline - Livermore Reach, \$30.5M was used; \$29.5M was returned to Wells Fargo because construction of the Altamont Water Treatment Plant has been deferred.

Figure ES-4. Fund 73 (Expansion) Preliminary Funding Outlook Based on Recommended Connection Fees



Dougherty Valley Facility Use Fee

When Zone 7 agreed to expand its service area to include Dougherty Valley in February 2000, it was agreed that Dougherty Valley developers, in addition to funding the costs of serving the development through connection fees and paying for water use through water rates, would make an additional payment to recognize the contributions made by ratepayers to construct and maintain the system. This additional payment is called the Dougherty Valley Facility Use Fee, applied to each equivalent connection (DUE) to the system. Amendment No. 1 to the M&I water supply contract between DSRSD and Zone 7 provides the details for the application of the Facility Use Fee. The initial rate established was \$1,850 per equivalent new connection. Amendment No. 1 also contained provisions for adjustment of the Facility Use Fee every five years based on ENR-CCI data and a calculated Adjustment Index. The last update to this fee was in 2006, when it was increased by 33% for the five-year period based on the estimated increase in ENR-CCI from December 1997 to December 2006. The fee became effective January 1, 2007.

In accordance with the methodology for calculating the Facility Use Fee as defined in Amendment No.1, staff has determined the new fee to be \$2,890, an increase of 17.5% from the current fee of \$2,460 as shown in **Table ES-2**. This fee would become effective on January 1, 2012.

Table ES-2. Adopted Dougherty Valley Facility Use Fee for 2007 and Recommended Fee for 2012

Effective Period	Dougherty Valley Facility Use Fee (\$/DUE)
Effective January 1, 2007	\$2,460
Recommended to be effective January 1, 2012 (17.5% Increase)	\$2,890

CHAPTER 1. INTRODUCTION

Zone 7 Water Agency

Zone 7 Water Agency (Zone 7) is a water wholesaler providing potable water to Dublin San Ramon Services District (DSRSD), the City of Livermore, California Water Service Company (Cal Water), and the City of Pleasanton (Retailers). In turn, these Retailers distribute water to municipal and industrial (M&I) customers in the cities of Dublin, Livermore, and Pleasanton, and in the Dougherty Valley portion of San Ramon. Zone 7 also serves treated water directly to six customers; however, their demand represents less than one percent of the total demand in the service area. Most of Zone 7's service area is located within Alameda County; an exception is Dougherty Valley, which is in Contra Costa County. Zone 7 is part of Alameda County but is governed by its own Board of Directors.

Connection Fee Ordinance

In January 1972, the Alameda County Board of Supervisors adopted Ordinance No. FC 72-1, pursuant to the Alameda County Flood Control and Water Conservation District Act (included as **Appendix A**). This ordinance allowed Zone 7 to impose a connection fee to finance water system improvements within the Zone 7 service area to meet future water supply needs. These water connection fees are subject to the provisions contained in California Government Code Sections 66013 and 66016. The provisions in Government Code Section 66013 define Zone 7 water connection fees as follows:

"(a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections...or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue."

"(b) As used in this section: "Water connection" means the connection of a structure or project to a public water system, as defined in subdivision (f) of Section 116275 of the Health and Safety Code."

Revenues collected from water connection fees are maintained in a separate account (Fund 73) in Zone 7's accounting system. While Zone 7 serves both M&I customers and agricultural customers, the connection fees discussed in this document only apply to M&I customers. Zone 7 will not have any new direct retail customers through buildout; therefore, new connections will derive from the Retailers' service areas.

Purpose of the 2011 Municipal & Industrial Connection Fee Program Update

The Municipal & Industrial (M&I) Connection Fee Program was established to ensure that Zone 7 is able to fund the necessary projects under Zone 7's Water System Expansion Program, which serves new growth in Zone 7's service area. The purpose of this update is to verify that Zone 7's connection fees represent the reasonable costs of providing service to new customers. To that end, the 2011 M&I Connection Fee Program Update undertook a comprehensive re-evaluation of the

projected population growth, demands, and new connections in the Zone 7 service, and the necessary water system expansion projects to meet the needs of future customers. Any changes to Zone 7's water resources, facilities, and policies since the last major update in 2006 that had an impact on water system expansion needs were incorporated in the update. Since the last update, Zone 7 has undertaken a number of key planning studies, which are described in Chapter 3. One particularly important planning document that defined the updated Water System Expansion Program is the 2011 Water Supply Evaluation completed in July 2011.

The planning horizon for this update is from Fiscal Year 2012/2013 (FY 12/13) through buildout, which is projected to occur between FY 34/35 and FY 39/40. Revisions in the projected number and timing of connections over this time period have a significant impact on the development of the Water System Expansion Program. Such revisions arise from various factors. Most notably, in the last few years, the economic downturn has delayed projected residential, commercial and industrial development, resulting in a slower growth in the number of new connections than was previously anticipated.

Overview of Connection Fee Calculation Methodology

In general, development of the Zone 7 M&I water connection fees begins with an analysis of the projected populations, and the associated new connections and water demands over the planning horizon. In parallel, the Water System Expansion Program is developed with the objective of implementing the capital improvement projects necessary to meet projected demands. The funding requirements of the Water System Expansion Program, along with the projected number of connections, is used to calculate the appropriate connection fee. The timing of project implementation is determined based on a number of factors: 1) meeting the demand needs over time, 2) ability to meet Zone 7's policy of funding expansion projects with pay-as-you-go financing to minimize risk to existing customers, and 3) maintenance of adequate fund balances to cover 50% of the following year's non-discretionary obligations. This methodology ensures that the connection fees charged to customers reflect reasonable costs to Zone 7, as required by the Connection Fee Ordinance No. FC 72-1.

For Zone 7's service area, two distinct Connection Fees are calculated: one for connections in Alameda County (administered by the Cities of Pleasanton and Livermore, Cal Water, and DSRSD) and one for Dougherty Valley (administered by DSRSD). When Dougherty Valley was added to Zone 7's service area, a separate agreement was required to ensure that Dougherty Valley pays its proportionate share of Zone 7's Water System Expansion Program. Water service to Dougherty Valley is intended to be equivalent to that which Zone 7 provides to its other customers; however, the Dougherty Valley Connection Fee excludes certain costs as will be described in Chapter 5. In addition, new Dougherty Valley customers pay a Facility Use Payment (or Fee), which is assessed to compensate Zone 7 for use of its existing facilities (essentially a "buy-in" fee). The terms for the determination of the Dougherty Valley Connection Fee and the Facility Use Fee are described in the *Amendment No.1 to Contract Between Zone 7 Water Agency And Dublin San Ramon Services District for Municipal Water Supply* (included as **Appendix B**).

Overview of the Following Chapters

In accordance with the methodology used to develop the M&I connection fees, the following chapters begin with an update of population, water demand, and connection projections (Chapter 2). Subsequent chapters then present an overview of the Water System Expansion Program (Chapter 3); establishment of the 2012 Connection Fees (Chapter 4); and the determination of the Dougherty Valley Facility Use Fee (Chapter 5). Finally, the report concludes with a summary and recommendations (Chapter 6).

CHAPTER 2. POPULATION, WATER DEMAND, AND EQUIVALENT CONNECTION PROJECTIONS

The following sections describe population, water demand, and connection projections used in this update of the M&I Connection Fee Program.

The Retailers, along with Zone 7, are required by the State of California to complete and adopt an Urban Water Management Plan (UWMP) every five years; UWMPs contain information on population, water demand, and account projections. Zone 7's and the retailers' UWMPs completed for 2010 served as a key reference for this analysis. Information from the UWMPs was supplemented with additional data provided by the Retailers.

A variety of methods was used to calculate new connections; these methods are described in more detail below.

Population Growth

The population projections for the Zone 7 service area presented here were derived from the 2010 UWMPs. Details on how the population projections were estimated by the Retailers for their service areas³ can be found in the individual UWMPs posted on their websites. In general, the Retailers used documents from the US Census, California Department of Finance, and City planning departments (e.g., General Plans, Specific Plans, and Housing Elements) to develop the estimates.

Table 2-1 provides a breakdown of population growth by retailer. Population projections for DSRSD are further broken down into the City of Dublin and the Dougherty Valley area of San Ramon. Overall, a 32% population growth is expected in the Zone 7 service area over the next 30 years to a buildout population of 299,000⁴. Note that this is a 13% increase from the buildout population of 263,610 originally projected in 2004⁵. This may be a reflection of revised population estimation methodologies and/or higher-density housing being built. DSRSD will experience the greatest percent increase, with populations in Alameda County and Dougherty Valley each growing by approximately 50%. Based on actual populations, DSRSD's Alameda County service area and Cal Water will experience the largest increases, at approximately 25,800 and 17,700 people, respectively.

Figure 2-1 plots the trend of total population growth from 2005 to 2040.

³ Populations for unincorporated areas within Zone 7's service area are not included; they represent a minor percentage.

⁴ The 2011 Water Supply Evaluation prepared by Zone 7 used an estimate of 291,000 people at buildout, a difference of 3% from 299,000.

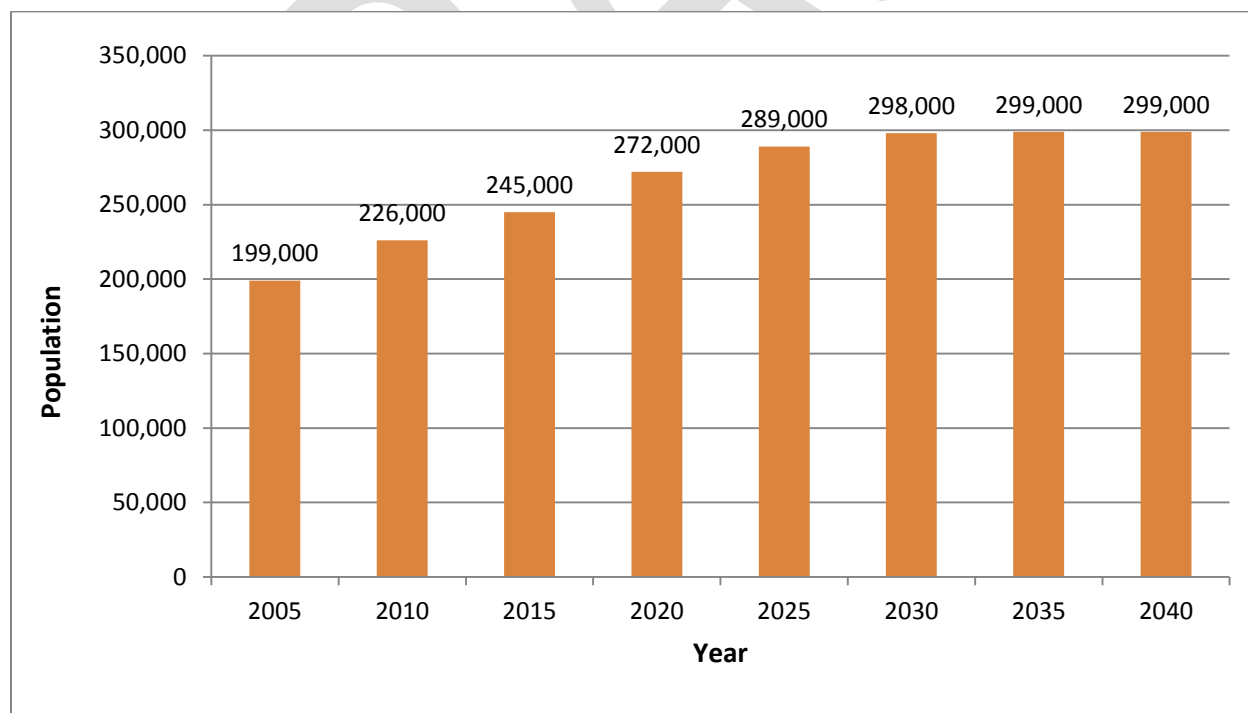
⁵ Zone 7 Water Agency, 2004. Development Impact Fee Report.

Table 2-1. Population Projections by Retailer*

Year	DSRSD - Alameda Co.	DSRSD - Dougherty Valley	Cal Water	Livermore	Pleasanton	TOTAL
2005	39,774	11,565	54,494	25,450	67,500	199,000
2010	48,821	19,146	56,956	31,994	69,300	226,000
2015	53,999	24,638	60,736	33,641	72,200	245,000
2020	64,039	28,525	65,882	37,724	75,600	272,000
2025	69,778	28,525	72,918	39,160	78,800	289,000
2030	74,592	28,525	73,497	39,160	82,300	298,000
2035	74,592	28,525	74,075	39,160	82,300	299,000
2040	74,592	28,525	74,654	39,160	82,300	299,000
Increase (2010 to 2040)	25,771	9,379	17,698	7,166	13,000	73,000
% Increase (2010 to 2040)	53%	49%	31%	22%	19%	32%

* Reference: 2010 UWMPs prepared by Retailers.

Figure 2-1. Population Growth in the Zone 7 Service Area from 2005 to 2040*



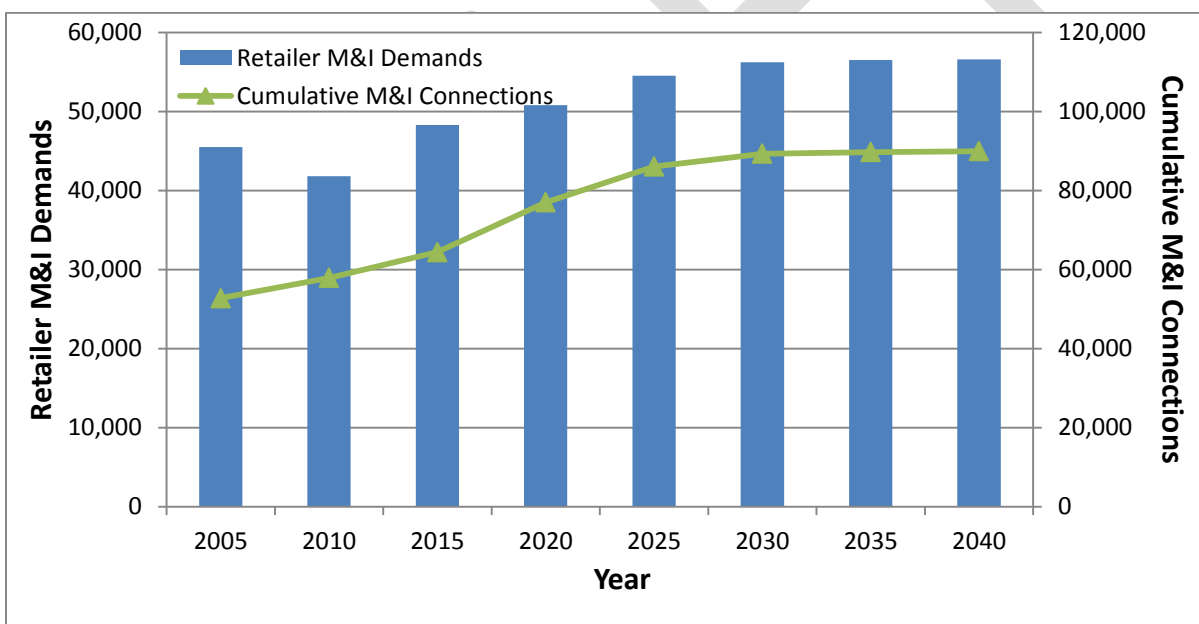
* Reference: 2010 UWMPs prepared by Retailers.

Demand Growth

The demand projections for the Zone 7 service area presented here were derived from the Retailers' 2010 UWMPs. Details on how the demand projections were estimated by the Retailers for their service areas can be found in the individual UWMPs. **Figure 2-2** shows the projected total retailer water demands between 2015 and 2040; to illustrate how they track against demand growth, the projected cumulative M&I connections are shown (details on the connection projections are provided in Section 2.3). For comparison, actual data for 2005 and 2010 are also included on **Figure 2-2**.

Demands include retailer customer deliveries, retailer system losses/unaccounted-for water, and groundwater pumping quotas (which may or may not be supplied by Zone 7 directly); they do not include deliveries to Zone 7's direct retail customers and untreated water customers. These projections do incorporate water demand reductions anticipated by the Retailers in their implementation of the Water Conservation Act of 2009. They also reflect growing populations and increased use of recycled water in the Livermore-Amador Valley. Between 2010 and 2040, retailer water demands are expected to increase by 35% to a buildout demand of 56,600 AF⁶.

Figure 2-2. Retailer Water Demands from 2005 to 2040*



*Reference: Retailers' 2010 UWMPs. These demands only include deliveries to the Retailers, and do not include deliveries to Zone 7's six direct retail customers and untreated water customers.

Connection Projections

This section discusses the normalization unit used for connection projections, how the connection projections were estimated, and the numbers of connections used for revenue projections.

⁶ The Retailer water demands presented here are lower than the demands used in the 2011 Water Supply Evaluation (WSE) because the Retailers are projecting greater levels of conservation than originally estimated in the 2011 WSE.

2.1.1 Dwelling Unit Equivalents

New connections in the Zone 7 service area will serve a variety of customers and a range of demands utilizing various meter sizes. Connection projections are normalized based on the Dwelling Unit Equivalent (DUE), which represents the 5/8-inch meter typically used in a single-family residential home. The conversion factors listed in **Table 2-2** are used in the normalization process. For example, four new 2-inch meters are equal to 32 new DUEs (four times eight DUEs per 2-inch meter). Zone 7 uses cold-water meters, and the applicable factors are defined in AWWA C700, "Standard for Cold-Water Meters – Displacement Type" and AWWA C701, "Standard for Cold-Water Meters - Turbine Type." Note that displacement type meters are more commonly used.

Table 2-2. Dwelling Unit Equivalents (DUEs) Based on Meter Size*

Meter Size (Inches)	Dwelling Unit Equivalents (DUEs)	
	Turbine Meters	Displacement- Type
5/8		1
3/4		1.5
1		2.5
1.5	12	5
2	16	8
3	35	18
4	100	50
6	200	100
8	350	175
10		275

*References: AWWA C700, "Standard for Cold-Water Meters – Displacement Type" and AWWA C701, "Standard for Cold-Water Meters - Turbine Type."

2.1.2 Estimates of New Connections

Zone 7 staff estimated the number of new DUEs for each retailer; however, DSRSD connection projections were calculated differently from the other Retailers.

Estimates for DSRSD

In May 2011, DSRSD provided their updated annual demand and connection projections to Zone 7 through buildout. Demand projections were developed by DSRSD based on land use analysis for each of DSRSD's planning areas. DSRSD converted demand projections to DUE projections by assuming a demand factor of 350 gallons per day per DUE, a value which was also updated in 2011 based on actual consumption patterns. For Zone 7's analysis, Zone 7 staff adjusted DSRSD's Arroyo Vista development projections to reflect actual plans recently submitted by developers.

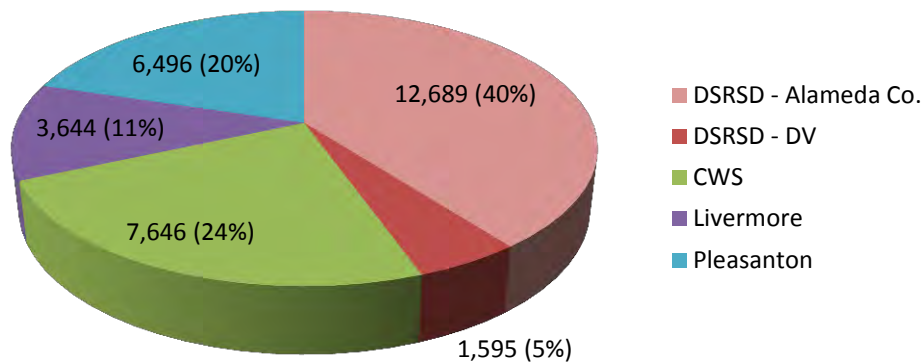
Estimates for Other Retailers

For the areas served by Livermore, Cal Water, and Pleasanton, *account* projections—not connection projections—were provided in their respective 2010 UWMPs in five-year increments. The accounts were broken down into water use sectors: single-family, multi-family, commercial, industrial, institutional/governmental, landscape, agricultural, and other. Zone 7 used 2009 account data for each retailer to calculate an average DUE/account factor for each water use sector; the factors were then multiplied by the corresponding account projections to obtain DUE projections. This assumes that, in the future, meter sizes used by various water use sectors remain similar to 2009 conditions. To develop yearly projections, the five-year projections of DUEs were assumed to increase linearly on an annual basis.

Total New Connections in the Service Area

As of 2010, Zone 7's system was serving approximately 58,000 DUEs (see **Figure 2-2**). From FY 10/11 through buildout (FY 39/40), 32,070 new DUEs are expected. **Figure 2-3** shows the estimated number of new connections broken down by retailer between FY 10/11 and FY 39/40.

Figure 2-3. Projected New Connections (DUEs) between FY 10/11 and FY 39/40



2.1.3 New Connections Used for Connection Fee Calculations

To determine the number of new connections for use in the connection fee calculations, the gross estimate of 32,070 new connections from FY 10/11 through buildout was adjusted to subtract connections that have been prepaid (i.e., connection fees have been paid but the construction may not have occurred yet) and credits (i.e., new connections at Arroyo Vista that replace existing potable water connections previously paid for). With the adjustments, the new connections producing revenue (“net connections”) total 30,446 DUEs.

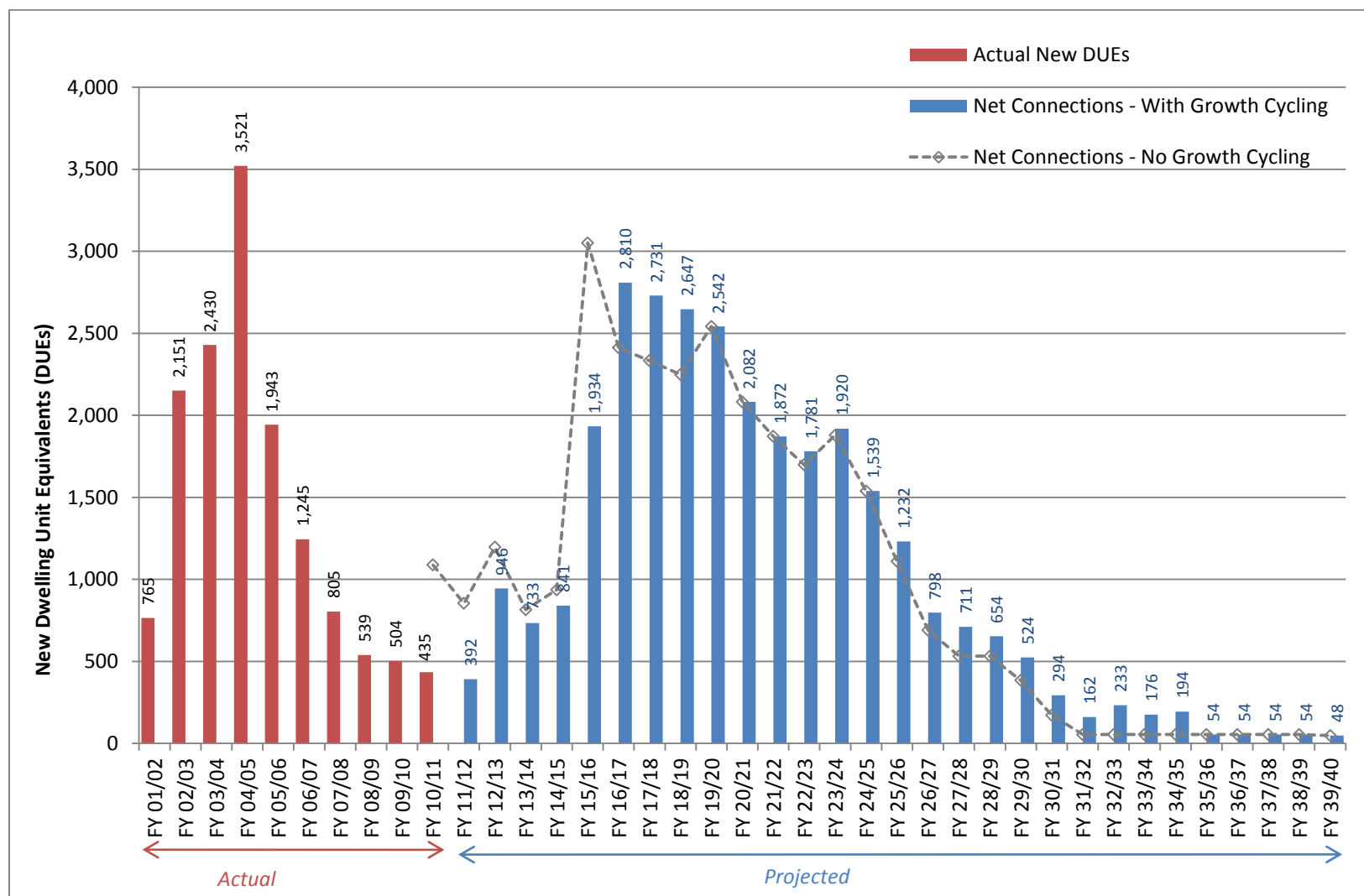
To account for the uncertainty in the rate of development, growth cycling was applied to the net connections. This growth cycling concept assumes only 70% of the first five years’ projections occur at that time and the remaining 30% occur over the ten-year period from FY 25/26 through FY 34/35. In other words, a fewer number of connections and lower revenues are planned for in the

near-term. This effectively incorporates some conservatism in Zone 7's planning for expenditures related to capital projects, partially addressing the uncertainty in the connection projections and giving better assurance that funds will be available when they are needed.

To further account for the uncertainty in the estimates, two additional adjustments were made. The FY 10/11 value was set to the actual value, and the difference in projected versus actual for FY 10/11 was spread over the following three years. Finally, the high number of new DUEs projected for FY 15/16 in DSRSD's Alameda County service area (1,590 DUEs) was re-distributed over a four-year period (FY 15/16 through FY 18/19).

The yearly totals of net connections as originally estimated are shown on **Figure 2-4**. The yearly totals of net connections with growth cycling and the FY 15/16 adjustment—which were used for the revenue projection analysis—are also shown on **Figure 2-4**. For comparison, **Figure 2-4** also presents the actual connections from FY 01/02 through FY 10/11. A similar level of development is projected to occur in a few years (starting around 2016) as compared to the period between 2003 and 2006. Note that if development does not occur as projected (e.g., gets delayed), planned projects and the associated expenditures will be delayed accordingly.

Figure 2-4. Actual and Projected Net Connections with and without Growth Cycling*



*Net connections are calculated from the gross connections adjusted for prepaid connections and credits. Net connections with growth cycling were used for the revenue projections. This growth cycling concept assumes only 70% of the first five years' projections occur at that time and the remaining 30% occur over FY 25/26 through FY 34/35. The FY 10/11 value was set to the actual value, and the difference in projected versus actual for FY 10/11 was spread over the following three years. The peak in FY 15/16 was also spread over four years.

CHAPTER 3. WATER SYSTEM EXPANSION PROGRAM

This chapter will describe Zone 7's Water System Expansion Program, which is designed to meet future demands on Zone 7's water system and is therefore funded through connection fees (designated as Fund 73). It will begin with an overview of the policies that shape the development of the program then follow with a discussion of the key planning documents used by Zone 7 and elements of the program, including the key projects and associated costs and timing of implementation.

Zone 7 Water System Policies

Zone 7's water system planning efforts are guided by policies set by its governing Board of Directors. These policies are classified into water supply and reliability, groundwater basin management, and water quality. The current policies are briefly described and presented below.

3.1.1 Water Supply and Reliability

Zone 7 strives to provide a highly reliable supply for its existing and future municipal and industrial (M&I) customers as expressed in the reliability policy below. The following goals were adopted by the Board under the *Reliability Policy for Municipal and Industrial (M&I) Water Supplies (Resolution No. 04-2662)*⁷ to guide the management of Zone 7's M&I water supplies as well as its Capital Improvement Program (CIP):

- Goal 1.** Meet 100% of its treated water customers water supply needs in accordance with Zone 7's most current Contracts for M&I Water Supply, including existing and projected demands for the next twenty (20) years as specified in Zone 7's Urban Water Management Plan (UWMP), which will be coordinated with Zone 7's M&I water contractors. Zone 7 will endeavor to meet this goal during an average water year, a single dry water year, and multiple dry water years.
- Goal 2.** Provide sufficient treated water production capacity and infrastructure to meet at least 75% of the maximum daily M&I contractual demands should any one of Zone 7's major supply, production or transmission facilities experience an extended unplanned outage.

Note that this reliability policy will be considered for revision in late 2011/early 2012. Policy changes, if any, will be incorporated into future updates of the Water System Expansion Program.

3.1.2 Groundwater Basin Management

A key responsibility of Zone 7 is the management of the Livermore-Amador Valley Groundwater Basin, portions of which are used to supply approximately 20% of the Valley's water demands and to provide local storage to meet demands during dry years. In 2005, Zone 7 adopted a Groundwater Management Plan (GMP) that integrated various Zone 7 policies and programs (*Resolution No. 06-2796*). A key element of the GMP is the 2004 Salt Management Plan (SMP), which was prepared for the California Regional Water Quality Control Board as part of the authorization process for the production and distribution of recycled water in the Livermore-Amador Valley. The SMP sets forth a plan to facilitate recycling without degrading local water quality. Furthermore, the SMP strives to

⁷ This policy will be re-considered in late 2011. Any changes to the policy will be integrated into future planning efforts.

maintain or improve groundwater mineral quality and delivered water quality as stated in the following goals:

- Goal 1.** Protect and enhance the quality of groundwater.
- Goal 2.** Offset current and future salt loading, while facilitating reasonable regional recycled water use.
- Goal 3.** Maintain or improve groundwater mineral quality.
- Goal 4.** Provide more comparable delivered water quality to Retailers.

Note that, beginning in 2011, Zone 7 will be updating the GMP and the SMP to incorporate the latest information and to address nutrient loading.

3.1.3 Water Quality

All of Zone 7's water deliveries to the Retailers meet or exceed state and federal health standards; however, surface water and groundwater taste, odor, and/or appearance vary depending on the source, season or customer's location. To maintain Zone 7's compliance with health-related water quality standards and to continue to improve the aesthetic quality of Zone 7's water supply, the Zone 7 Board adopted the *Water Quality Policy for Potable and Non-Potable Water (Resolution No. 03-2494)*. Its goals are presented below.

- Goal 1:** Zone 7 shall continue to meet all state and federal primary Maximum Contaminant Levels (MCLs)⁸ for potable water delivered to the M&I Contractors' turnouts, in accordance with existing water supply agreements.
- Goal 2:** Zone 7 shall meet all state and federal secondary MCLs in the potable water delivered to its M&I Contractors' turnouts. In addition, Zone 7 shall, within technical and fiscal constraints, proactively mitigate earthy-musty taste and odor events from surface water supplies and reduce hardness levels to "moderately hard", defined as 75 to 150 mg/L as CaCO₃. Also, Zone 7 shall optimize its treatment processes to minimize chlorinous odors by maintaining consistent disinfectant dosage and residual.
- Goal 3:** Zone 7 shall endeavor to deliver to its non-potable Contractor turnouts, from a variety of sources, water of a quality that meets the irrigation needs of its Contractors and does not negatively impact vegetation, crops, or soils.
- Goal 4:** In order to achieve Goals 1 through 3, Zone 7 shall continue to work to improve the quality of its source waters. This may be achieved through Zone 7's Salt Management Plan, which will maintain or improve the water quality in the groundwater basin, and through advocacy of improvements in the State Water Project, its facilities and their operations, which may improve the source water of Zone 7's surface water supplies. In addition, Zone 7 will encourage the retailers to take similar steps as those outlined in this policy to improve the quality of the retail customers' water.

⁸ Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals (PHGs) (or Maximum Contaminant Level Goals, MCLGs) as is economically and technically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Planning Studies

The Zone 7 Water System Expansion Program is a major component of Zone 7's overall Capital Improvement Program (CIP). The Expansion Program identifies the capital projects needed to meet the needs of new customers as planned for and approved by the local government agencies having such jurisdiction within Zone 7's service area. Zone 7 has completed the planning efforts listed below, which provide the engineering basis for the Expansion Program. These efforts evaluated alternatives for water acquisition, supply reliability, conveyance, treated water facilities, new production wells, water quality, and transmission facilities that provide feasible, flexible and cost-effective projects to meet the needs of future M&I customers without negatively affecting existing customers.

- Treated Facilities Master Plan (Camp Dresser and McKee, February 2000)
- Water Conveyance Study (Camp Dresser and McKee, June 2001)
- Salt Management Plan (Zone 7, June 2002)
- Water Quality Management Program (MWH Americas, April 2003)
- Well Master Plan (CH2M Hill, October 2003)
- Lakes H&I and Cope Lake Management Plan (Stetson Engineers, June 2004)
- Well Master Plan EIR (ESA Associates, September 2005)
- 2010 Urban Water Management Plan (Zone 7, December 2010)
- Zone 7 FY 12/13 Capital Improvement Program – Ten-Year Water System Plan (Zone 7, October 2011)
- 2011 Water Supply Evaluation (Zone 7, July 2011)

Program Costs and Components

The recommended facilities and supplies resulting from the planning efforts described above are included in the Water System Expansion Program as specific projects. Cost estimates and timing needs are incorporated into the CIP.

Table 3-1 identifies the projects that are included in the Program, the percent allocation of costs to Fund 73 - Expansion, and the responsible group for each of the projects. The projects and their timing form the basis of Zone 7's expenditures—and required revenues—over time.

Note that “sinking funds” are established for the Administrative and Engineering Building, Fourth Contractor's Share of the South Bay Aqueduct (SBA), and the SBA Enlargement Project. The sinking fund for the Administrative and Engineering Building will be used to purchase the building at the end of the fifteen-year lease in FY 18/19. For the other two projects, the sinking funds ensure that there is funding for expenditures that continue beyond substantial buildout of the system—after 2035, new connections drop substantially and do not bring in sufficient revenues to meet financial obligations. To calculate the required contributions towards the sinking funds, Zone 7 staff

assumed substantial buildout by FY 29/30 (only about 5% of the new connections are expected to occur between FY 29/30 through FY 39/40). After FY 29/30, money available in the sinking funds will be used to pay continuing obligations for the Fourth Contractor's Share of the SBA and the SBA Enlargement Project.

Forty-two projects funded in whole or in part by Fund 73 with a total funding need of \$1,069,388,000 (including contingency and connection fee administration) through FY 39/40 have been identified. **Figure 3-1** shows the projected new connections and expenditures over time, and the major facilities to be constructed to meet demand growth. Major facilities, particularly the Water Treatment Plant (WTP) Expansion, are planned to be in-service around 2022 to 2025, as reflected by the peak in expenditures during that time period. The results from the 2011 Water Supply Evaluation (WSE) indicate that new treatment capacity will be needed around this time period in order to meet Maximum Day Demands. Zone 7 will continue to update its CIP every two years and changes in demands and available funding will be incorporated into the ultimate scheduling of project construction; projects intended to meet new demands will be shifted according to when those demands are expected.

Section 3.3.2 describes the general principles used in the cost allocation to Fund 73 – Expansion. Section 3.3.3 describes the Water System Expansion Program and its components; the key projects are described but a more detailed description of each project can be found in **Appendix C**.

Table 3-1. Water System Expansion Program – Projects and Cost Allocations

PROJECT TITLE	% ALLOCATION TO FUND 73	PROJECT COSTS (FY 12/13-39/40) \$1,000s	RESPONSIBLE GROUP ^a
BUILDINGS & GROUNDS			
Administrative & Engineering Building - Sinking Fund (Fund 73) ^g	35	\$4,460	Z7/DV
Administrative & Engineering Building Lease (Water System)	35	\$3,026	Z7/DV
Subtotal		\$7,486	
GROUNDWATER BASIN MANAGEMENT			
Groundwater Management Plan/Salt and Nutrient Management Plan Update	30	\$327	Z7/DV
Second Groundwater Demineralization Facility	100	\$65,380	Z7/DV
Subtotal		\$65,707	
PROGRAM MANAGEMENT			
Capital Improvement Program Management	75	\$2,843	Z7/DV
Expansion Program Management (ISA interest costs)	100	\$1,103	Z7/DV
Subtotal		\$3,946	
TRANSMISSION & DISTRIBUTION			
New Water Treatment Plant Transmission Pipeline	100	\$36,560	Z7/DV
Westside Transmission System Improvements	100	\$7,370	Z7/DV

PROJECT TITLE	% ALLOCATION TO FUND 73	PROJECT COSTS (FY 12/13-39/40) \$1,000s	RESPONSIBLE GROUP ^a
Subtotal		\$43,930	
WATER SUPPLY & CONVEYANCE			
Arroyo Mocho Low Flow Crossings	100	\$810	Z7/DV
Arroyo Mocho Diversion Facility Coordination and Implementation	100	\$470	Z7/DV
Bay Area Regional Desalination Project - Planning	100	\$650	Z7
Cawelo Groundwater Banking Program	100	\$31,247	Z7
Chain of Lakes Facilities and Improvements - Water Supply	70	\$51,989	Z7/DV
Chain of Lakes Master Planning	100	\$5,580	Z7/DV
CUWA Membership	30	\$730	Z7/DV
Bay Delta Conservation Plan (Zone 7)	30	\$310	Z7/DV
Delta Habitat Conservation and Conveyance Program	30	\$190	Z7/DV
Delta Outreach Program	30	\$210	Z7/DV
Fixed Cost of Water Entitlement ^b	sliding scale 0%-57%	\$6,426	Z7
Fourth Contractor's Share of the SBA - Sinking Fund ^{c,d}	100	\$12,734	Z7/DV
Fourth Contractor's Share of the SBA (Capital Costs) ^d	100	\$37,800	Z7/DV
High-Efficiency Toilet Rebate Program	30	\$180	Z7
High-Efficiency Washing Machine Rebate Program	30	\$730	Z7
Lakes H, I and Cope Facility Planning	35	\$109	Z7/DV
Reliability Intertie	70	\$17,472	Z7/DV
Semitropic Stored Water Recovery Unit	100	\$1,152	Z7/DV
South Bay Aqueduct Enlargement Project ^e	100	\$276,475	Z7/DV
South Bay Aqueduct Enlargement Project - Sinking Fund ^{e,f}	100	\$30,295	Z7/DV
SWP Peaking Payment (Lost Hills & Belridge Water Districts) ^b	sliding scale 0%-57%	\$565	Z7
Water Conservation Best Management Practices	30	\$600	Z7
Water Supply Replacement	100	\$78,570	Z7/DV
Water System Master Plan	60	\$492	Z7/DV
Subtotal		\$555,785	
WATER TREATMENT FACILITIES			
Construction of Three Dual Media Filters to Expand PPWTP	100	\$9,190	Z7/DV
DWR Land Acquisition	30	\$156	Z7/DV
PPWTP Maintenance Yard and Building Improvements	30	\$621	Z7/DV
Water Quality Management Program	30	\$414	Z7/DV
Water Treatment Plant Expansion (24 MGD)	100	\$176,340	Z7/DV

PROJECT TITLE	% ALLOCATION TO FUND 73	PROJECT COSTS (FY 12/13-39/40) \$1,000s	RESPONSIBLE GROUP ^a
Subtotal		\$186,721	
WELLS			
Bernal Wells 1 & 2 and Pipeline	100	\$49,070	Z7/DV
Busch-Valley Well 1	100	\$15,940	Z7/DV
Chain of Lakes Well 5	100	\$8,240	Z7/DV
Chain of Lakes Wells 3 & 4	100	\$16,220	Z7/DV
El Charro Pipeline Phase 2	100	\$7,580	Z7/DV
Subtotal		\$97,050	Z7/DV
Total Project Costs		\$960,624	Z7/DV
Program Contingency	100	\$100,090	Z7/DV
Connection Fee Administration (1% of Revenue)	100	\$8,740	Z7/DV
EXPANSION PROGRAM TOTAL		\$1,069,388	

a. Z7 = the Alameda County portion of Zone 7's service area. DV = Dougherty Valley.

b. Costs are allocated on a sliding scale as determined by the percent of new connections remaining out of the total connections projected between 1999 and build-out.

c. Includes an initial sinking fund balance of \$1,075K as of FY 11/12.

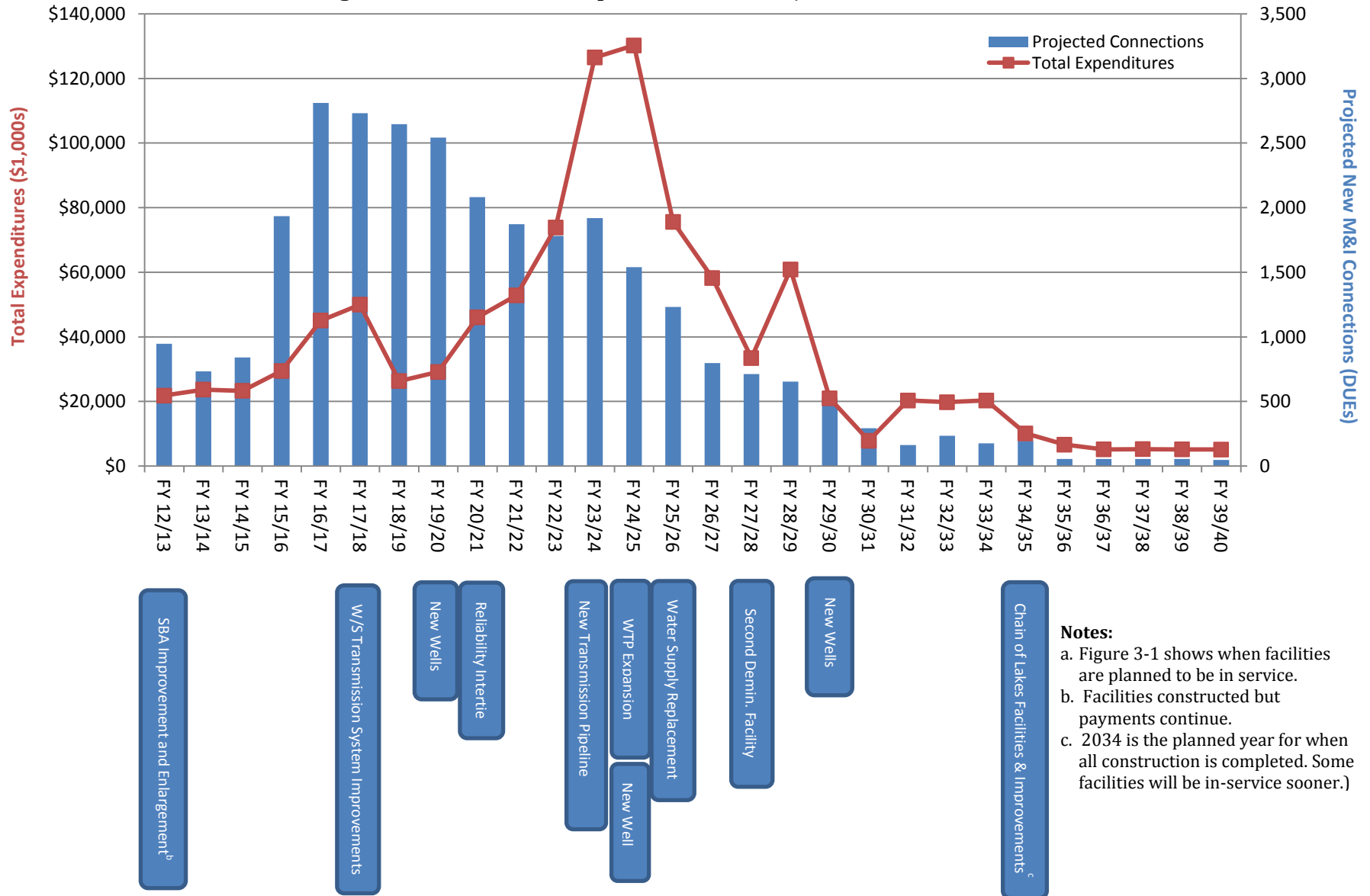
d. Only the Transportation Capital and Water System Revenue Bond Surcharge portions are included in Fund 73.

e. This includes the cumulative revenue bond cover surcharge of \$64M, which will be refunded to Zone 7. The gross payments will be \$307M but the net payments will be \$243M.

f. Includes an initial sinking fund balance of \$6,526K as of FY 11/12.

g. Includes an initial sinking fund balance of \$1,422K as of FY 11/12.

Figure 3-1. Connections, Expenditures, and Major New Facilities^a



Notes:

- Figure 3-1 shows when facilities are planned to be in service.
- Facilities constructed but payments continue.
- 2034 is the planned year for when all construction is completed. Some facilities will be in-service sooner.)

3.1.4 General Cost Allocation Principles

To determine the appropriate costs to include in the Water System Expansion Program portion of the CIP, *a key general principle used by Zone 7 is that those who benefit should pay the proportionate cost.*

Costs for those facilities and supplies that serve both existing and new customers are allocated to the customers in proportion to the benefits they receive. Zone 7's current analysis of projected demands indicates that, at buildout, 70% of demands will be from existing customers (as of 2011) and 30% from new customers connecting to the system between 2011 and 2040; this breakdown is used in the cost allocation of projects that ultimately affect all Zone 7 customer benefits equally.

Some projects have both water supply and flood control benefits (e.g., Chain of Lakes efforts); costs are allocated to reflect this since flood control has a separate funding source.

Based on the *Amendment No. 1 to Contract Between Zone 7 Water Agency and Dublin San Ramon Services District for a Municipal and Industrial Water Supply (Appendix B)*, customers in Dougherty Valley do not pay for those projects related to water acquisition and non-local groundwater storage because Dougherty Valley customers pre-purchased their water supply and storage.

3.1.5 Program Components

The various components of the Water System Expansion Program are described below. Note that the project costs presented cover the period from FY 12/13 through buildout. More details on each project can be found in **Appendix C**; note, however, that the "Total Project Cost" presented in each project summary includes project costs, if any, incurred prior to FY 12/13.

Buildings & Grounds

This program component addresses structures and support facilities not directly involved in the conveyance, supply, treatment, transmission, or storage of water. The Administration & Engineering Building Project is a "Build-to-Suit" option in which Zone 7 leases a building that the developer has built according to Zone 7 specifications. This lease has an option to buy. The total project cost is \$20.2 million, which includes ancillary costs, 15-year lease costs, and estimated cost of purchasing the building at the end of the 15-year lease (FY 18/19). Connection fees fund 35% of the Administration & Engineering Building. To ensure that there are adequate funds to purchase the building at the end of the lease, a sinking fund was established, also at a 35% cost allocation. By the end of the 15-year lease period, the sinking fund contributions, along with the compounded interest earned, will be adequate to purchase the building.

Groundwater Basin Management

As described in Section 3.1.2, one of Zone 7's key responsibilities is the management of the Livermore-Amador Valley Groundwater Basin (Basin) and the protection of its water quality. The Basin is a very important resource to the Valley, providing approximately 20% of water supplies Valley-wide during normal years and providing storage necessary to meet demands during drought and other emergency conditions. Over the years, the Basin's water quality has degraded, as evidenced by rising levels of total dissolved solids (TDS) or "salts" and hardness. One of the main sources of salt loading to the Basin is imported water applied for urban irrigation purposes. New

development, which will require additional imported water, will therefore be a contributor to salt loading in the Basin.

Conjunctive use of the Basin and wellhead demineralization are Zone 7's two key strategies for addressing salt loading. Under conjunctive use, the Basin is recharged with lower-TDS surface water, which replaces or dilutes high-TDS groundwater. Wellhead demineralization removes salts from groundwater being pumped out of the Basin; these salts are concentrated and exported to the San Francisco Bay. Wellhead demineralization also provides the added benefit of delivering a water supply with lower TDS and hardness levels in accordance with Zone 7's Water Quality Management Program (see Section 3.1.3).

In accordance with the Salt Management Plan, wellhead demineralization is planned to ultimately remove a total of 6,000 tons of salt per year to address the accumulation of salts due to existing uses and new growth. The first demineralization facility (Mocho Groundwater Demineralization Facility) came online in Spring 2009. This facility is an 8-mgd facility and is anticipated to remove approximately 3,000-4,000 tons of salt per year. The total project cost was approximately \$34 million with costs split equally between connection fees and water rates. The second facility will be funded entirely by connection fees and is anticipated to be completed by 2028. The total project cost for the second facility, when adjusted for inflation, is estimated to be \$65 million.

Zone 7 will be completing an updated Groundwater Management Plan and Salt and Nutrient Management Plan by 2014 as mandated by the State Water Resources Control Board's new Recycled Water Policy (SWRCB Res No. 2009-0011). This update will be critical to understanding the potential impacts of various water supply options (e.g., recycled water) on the Basin's sustainability and the associated salt mitigation requirements. Connection fees will contribute 30% towards the cost of the project, which is \$930,000 for the period FY 12/13 through FY 39/40.

Program Management

Staff time and other expenditures related to program management are tracked separately under Capital Improvement Program Management and Expansion Program Management. Connection fees cover 75% of the former and 100% of the latter based on associated program expenditures.

Transmission & Distribution

This program component consists of raw water transmission and treated water distribution system projects related to facilities owned and operated by Zone 7. A key project is the construction of a transmission pipeline from either the Altamont or Patterson Pass Water Treatment Plant site to Zone 7's existing transmission system, estimated to cost \$37 million. Project timing is tied to the need for the expansion of surface water treatment capacity to serve new customers, which is likely to occur between 2020 and 2025. This project will be 100% funded by connection fees.

A second key project involves making improvements to the west side of Zone 7's transmission system to accommodate future growth. The current estimate for project cost is \$7 million, although the specific facility requirements, timing, and associated costs will be refined through hydraulic modeling planned as part of the Water System Master Plan update (discussed in the following paragraph).

Water Supply & Conveyance

This program component focuses on the planning and purchase of new water supplies; implementation of improvements required to convey raw water to treatment facilities for M&I customers; and other actions necessary to ensure a reliable water supply for all customers. Unlike the Transmission and Distribution Program, this program only includes conveyance (transmission) facilities not owned by Zone 7 (e.g., South Bay Aqueduct) or facilities only partially owned by Zone 7.

Purchase of new supplies and access to storage facilities are necessary to ensure 100% reliability of Zone 7's water supply system as required by policy (see **Section 3.1.1**).

Zone 7 has been increasing its water supplies over the years. Starting in 1999, State Water Project (SWP) Table A⁹ amounts totaling 34,619 acre-feet from Lost Hills Water District, Belridge Water Storage District, Berrenda Mesa Water District, and Tulare Lake Basin Water Storage District were purchased by Zone 7 in order to meet its long-term water supply needs. These purchases raised Zone 7's Table A allocation to 80,619 AFA through 2035¹⁰. The contracts provide for a one-time payment for the permanent transfers along with the obligation to take over the on-going yearly SWP payments. The one-time payments were allocated entirely to connection fees and have been fully paid. The Fixed Cost of Water Entitlement, which represents the ongoing annual fixed cost payments for the SWP related to the transfers, is allocated on a sliding scale basis to connection fees. The yearly allocation to connection fees is determined by the percent of new connections remaining out of the total connections projected between 1999 and buildout.

As indicated above, the SWP transfers were originally thought to be sufficient to meet long-term demands through buildout. However, environmental and legal challenges in the Sacramento-San Joaquin Delta have resulted in the decline of the long-term average yield of Table A water over the years. According to the Department of Water Resources (DWR) 2009 Reliability Report, the reliability of Table A supplies is now only at 60%, a further decrease from the projected 75% reliability level as of 2007 (2007 DWR Reliability Report). This decrease in reliability translates to approximately 12,000 acre-feet (AF) of lost long-term water supply.

New Supplies

To address the decreasing reliability of SWP supply, Zone 7 completed the 2011 Water Supply Evaluation (2011 WSE), which identified near- and long-term risks of water supply shortages, low-cost actions that will minimize near-term risks of those shortages, and additional studies necessary to refine yields and costs of various water supply options. An extensive list of potential replacement water supplies, including costs, was generated as part of the 2011 WSE. While additional analysis and studies recommended in the 2011 WSE will need to be completed in the upcoming years, Zone 7 has concluded that a combination of operational improvements, water conservation, recycled water, desalination, and/or water transfers will likely be necessary. The Water Supply Replacement project, estimated at \$80 million, will pay for the additional supply necessary to replace the lost yield from the SWP and to serve new customers. This project will be refined based on the Water System Master Plan to be completed by 2015. Connection fees will pay 60% of the cost of the Water System Master Plan at a cost of \$492,000.

⁹ Each SWP contractor is limited to a contractual amount specified in Table A of the water supply contracts.

¹⁰ Current expiration year of SWP contracts. The contracts will likely be extended in the next few years.

In pursuit of new water supplies, Zone 7 is currently participating in the planning efforts of the Bay Area Regional Desalination Project; this project is a regional collaboration that can potentially provide a new supply of desalinated water from Suisun Bay to five Bay Area agencies. If implemented, the construction cost could potentially be covered under Water Supply Replacement. The planning efforts are fully paid through connection fees at an estimated cost of \$650,000.

Storage

As noted previously, storage, along with supplies, is critical to meeting water demands through buildout. In 1998 and 1999, Zone 7 acquired storage capacity in the Semitropic Water Storage District (Semitropic) groundwater banking program. Of Zone 7's current total storage capacity of 78,000 AF in Semitropic, 43,000 AF was purchased specifically for Dougherty Valley. Originally, Zone 7 was only allowed to recover 5,850 acre-feet annually (AFA) of stored water from Semitropic; by participating in the Semitropic Stored Water Recovery Unit (SWRU) project, Zone 7 was able to increase its minimum recovery capacity to 9,100 AFA. For the Semitropic groundwater banking program, only costs associated with the SWRU project remain; this project is expected to cost \$1.1 million to be fully funded by connection fees.

Anticipating potential shortfalls in dry-year water supplies, Zone 7 additionally purchased 120,000 AF of storage capacity in Cawelo Water District's Groundwater In-Lieu Banking Program (Cawelo). This purchase can provide up to 10,000 AFA of necessary capacity. The remaining \$31 million in project costs is also funded fully through connection fees.

SWP and Delta Improvements

Approximately 90% of Zone 7's water supply travels through the Sacramento-San Joaquin Delta (Delta), making it a critical part of Zone 7's water supply system. As previously noted, over the years, the reliability of water supply from the Delta has been eroding due to a number of legal and environmental concerns. In the last five years in particular, concerns over threatened and endangered species have limited pumping from the Delta, reducing the water available to Zone 7 and other contractors of the SWP. The Bay Delta Conservation Plan (BDCP) is a 50-year plan currently being developed to restore fish and wildlife species in the Delta in a way that would provide for the protection and restoration of water supplies. In parallel with the BDCP, the Delta Habitat Conservation and Conveyance Program (DHCCP) is designed to develop alternatives for reliably conveying SWP and Central Valley Project water through the Delta in an environmentally sound manner. The information produced by the DHCCP and the associated Environmental Impact Report/Statement will be incorporated into the BDCP. Connection fees pay for 30% of the BDCP and DHCCP costs or \$500,000.

Zone 7 also supports other efforts to improve conditions in the Delta through the Delta Outreach Program. Again, connection fees represent 30% of the funding source or approximately \$250,000.

The South Bay Aqueduct (SBA) brings water into the Livermore-Amador Valley from the Delta and is therefore a critical facility in Zone 7's water supply system. Under the SBA Aqueduct Improvement and Enlargement project, DWR has been making changes to the SBA necessary to convey an additional 130 cubic feet per second (cfs) through Reach 1 and 80 cfs through Reaches 2 through 4 to Zone 7. Improvements include an expanded South Bay Pumping Plant, third (parallel) Brushy Creek Pipeline, raised linings on open channel sections and Patterson Pass Reservoir, replacement of a 54-inch pipeline under I-580 with a 78-inch pipeline (completed in 2002), application of hydraulically smoother elastomeric polyurethane lining on the Altamont Pipeline

(completed in 2002), and a new 425 acre-foot raw water reservoir (Dyer Reservoir) (completed in 2011) located near Dyer Road. Only the SBA enlargement portion is being paid for by Fund 73.

The SBA Enlargement Project is needed to convey additional raw water into the Livermore-Amador Valley and to Zone 7's treatment facilities to meet demands through buildout. These facilities are sized to meet peak seasonal demands. Without increasing raw water conveyance capacity, there would not be sufficient surface water available for planned new water treatment plant capacity and Zone 7 would have to rely more on groundwater to meet peak demands. Also, Zone 7's ability to import surface water and recharge the groundwater basin would be diminished, putting long-term water supply storage and reliability at risk.

Amendment No. 24 to Zone 7's water supply contract with DWR allows for debt financing of the SBA Enlargement Project by DWR. Annual payments by Zone 7 began in 2006 and will end in 2036. To ensure that there is adequate funding available to make the payments through 2035, a sinking fund was established as discussed earlier. Total payments towards the SBA Enlargement Project between FY 12/13 and FY 39/40 will be \$307 million; accounting for the cumulative revenue bond cover surcharge of \$64 million, which will ultimately be refunded to Zone 7, the net expenditures will total \$243 million.

Chain of Lakes

The Chain of Lakes (COL)—a series of ten mined out or currently active gravel quarry pits that have been or will be dedicated to Zone 7—will be a significant water management resource for the Livermore-Amador Valley. Zone 7 currently only owns Cope Lake and Lake I, but is expected to take ownership of Lake H sometime within the next five years, and the remaining lakes over the next twenty years. The Chain of Lakes Master Planning effort will primarily consist of the near-term and long-term management and planning necessary to integrate the Chain of Lakes into Zone 7's water supply system, and into various general plans, specific plans, on-going construction, or other activities in the Livermore-Amador Valley. Connection fees will pay for \$5.6 million or 100% of the cost of the Chain of Lakes Master Planning effort, which is expected to continue over the next twenty years.

Other projects in the COL have begun, or will begin in FY 12/13, to implement the necessary facility improvements for the use of Cope Lake, Lake I, and Lake H. The COL Facilities and Improvements - Water Supply project is the "parent project" for the development, design, and construction of future improvements and facilities at the COL for water supply purposes (e.g., conveyance, storage and groundwater recharge) and flood control uses such as fences, access roads, slope re-grading and landscaping. As specific projects become better defined, they will be listed as separate CIP projects with funding transferred from this project. Connection fees will pay for \$52 million of this project, at a cost allocation of 70%. Other efforts underway are the Lakes H, I, and Cope Facility Planning; Arroyo Mocho Low Flow Crossings; Arroyo Mocho Diversion Facility Coordination and Implementation; and Cope Lake Facilities and Improvements. Project cost information for these projects is listed in **Table 3-1**.

Reliability Intertie

As stated earlier, approximately 90% of Zone 7's long-term average water supplies are conveyed via the SBA; moreover, access to Zone 7's non-local storage in Semitropic and Cawelo during droughts is also dependent on the SBA. Consequently, an outage of the SBA or major disruptions in the Delta could potentially have catastrophic results to Zone 7's service area. In such an event, Zone

7 would only have access to groundwater and a portion of supplies in Lake Del Valle; these supplies may not be able to meet indoor use depending on hydrologic conditions when such an event occurs. The Reliability Intertie project will help mitigate some of these risks by constructing a new intertie with another major water agency (e.g., East Bay Municipal Utility District [EBMUD], San Francisco Public Utilities Commission [SFPUC]) that would provide additional means of acquiring water supplies during such an event. Currently, the intertie has an estimated cost of \$25M to Zone 7, assuming a grant would cover 25% of the potential total project cost. Seventy percent (\$17.5 million) of Zone 7's cost is allocated to connection fees. The reliability intertie also has the potential to convey new water supply to Zone 7's service area.

Water Conservation

Zone 7 sees water conservation as a key element of sustainable water management in the Livermore-Amador Valley. As such, Zone 7 is a signatory to the Memorandum of Understanding Regarding Urban Water Conservation in California and a member of the California Urban Water Conservation Council. To promote water conservation, Zone 7 is implementing several programs: High-Efficiency Toilet Rebate Program, High-Efficiency Washing Machine Rebate Program, and Water Conservation Best Management Practices. Connection fees pay for 30% of the program costs or approximately \$1.5 million.

Water Treatment Facilities

This program component addresses the existing and proposed facilities used in the treatment of raw water from the SBA system for distribution to Zone 7's customers.

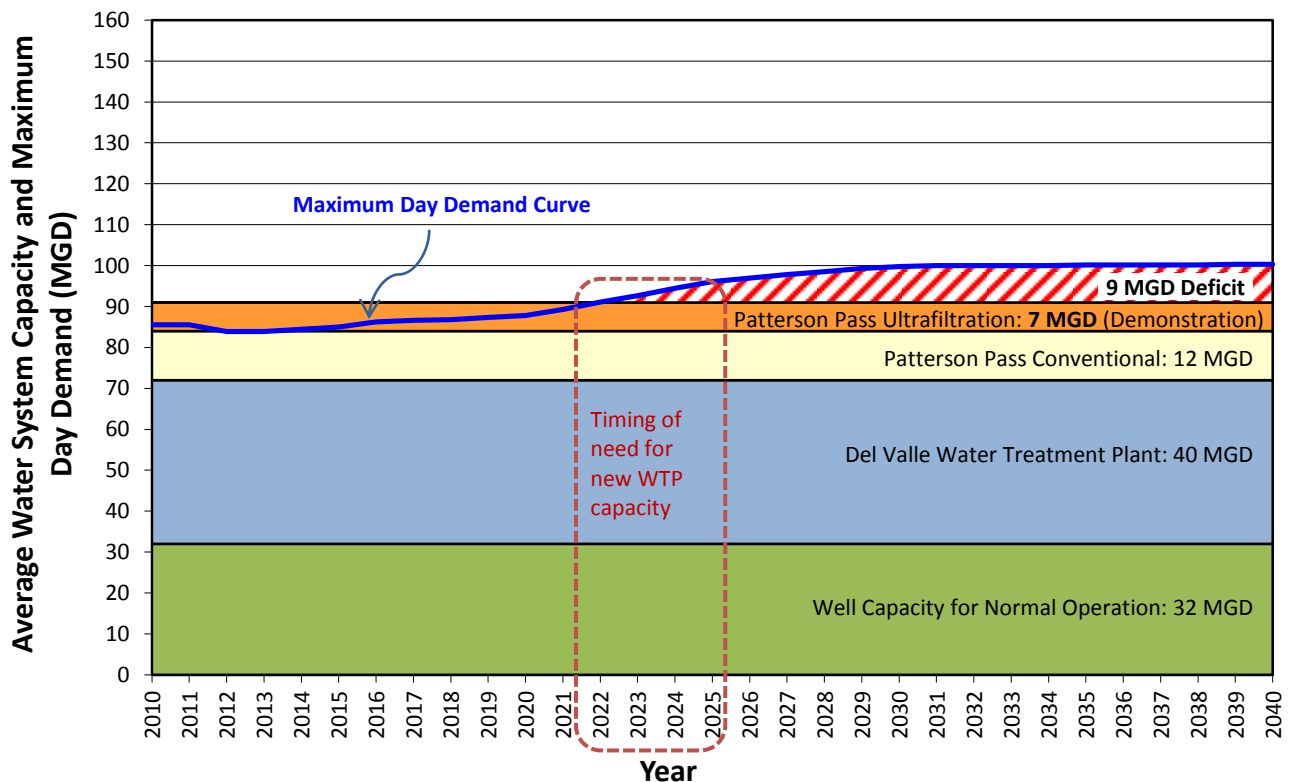
Analysis completed as part of the 2011 WSE indicates that additional water treatment plant capacity is required to meet projected maximum day demands through buildout, starting around 2023. In addition, the Ultrafiltration (UF) Plant at Patterson Pass WTP is a temporary plant that was originally constructed to meet near-term capacity shortages and will therefore need to be replaced. The potential shortage in treatment plant capacity, which includes replacement of the UF plant, is anticipated to be between 20 to 24 million gallons per day (MGD). The treatment plant expansion will be constructed at either the Altamont site near Dyer Reservoir or at the Patterson Pass WTP site¹¹. The project timing of the expansion is tied to the nearer-term replacement of the 7-MGD UF plant with conventional filters¹², which will be designed to provide an additional 5 MGD of capacity (total of 12 MGD) addressing a portion of the projected capacity needs for new customers. **Figure 3-2** illustrates Zone 7's current water system capacity to meet maximum day demand and the need for expansion to meet the demands of new customers.

The cost of the Water Treatment Plant Expansion is estimated at \$176 million. The construction of conventional dual media filters to replace the UF plant is expected to cost approximately \$9M. Both will serve the demands of new customers and are therefore funded entirely by connection fees.

¹¹ Previous analysis based on growth trends at that time had suggested the need for a 24-MGD treatment plant by 2012. As such, from 2004 through 2007, Zone 7 completed the design of the Altamont Water Treatment Plant (AWTP) and Altamont Pipeline (APL). The first portion of the APL, Altamont Pipeline Livermore Reach, was constructed in 2009 to provide an interconnection within Zone 7's existing transmission system. Construction of the AWTP was delayed in response to the slowdown in demand growth. A recent peer review (WQTS, 2009) of the proposed AWTP site and process determined the Patterson Pass WTP site to be a viable alternative to Altamont.

¹² As intended, the UF plant has enabled Zone 7 to assess membranes for a future larger plant expansion. Zone 7 has found UF technology to be more costly than anticipated due to power, chemical, membrane replacement, and other maintenance costs. Furthermore, as the UF plant uses proprietary membrane modules, Zone 7 is potentially vulnerable to excessive cost increases and/or obsolescence of the membrane module.

Figure 3-2. Current Water System Capacity to Meet Maximum Day Demand^a



Notes:

a. Reference: 2011 Water Supply Evaluation [WSE] (Zone 7, 2011). Analysis includes existing facilities for normal operations (non-emergency/drought operations). Maximum Day Demand is estimated using peaking factor of 2.0 times the annual average demand for all M&I demands. 2011 WSE assumes water conservation and reduced Zone 7 unaccounted-for water.

b. Patterson Pass Ultrafiltration Plant will be replaced with conventional filters sometime before 2022 with a resulting expansion from 7 to 12 MGD. Additional treatment capacity can therefore be delayed to 2025.

Wells

As described in Section 3.1.1, Zone 7 has a policy goal of meeting at least 75% of the maximum daily M&I contractual demands should any one of Zone 7's major facilities experience an extended unplanned outage. As such, Zone 7's Well Master Plan sets out the plan for the construction of seven to nine new municipal water supply wells to meet Zone 7's reliability goal through buildout. New wells are constructed under a schedule that mirrors the demand growth, since they are designed to provide reliability for new customers. Two of these wells, Chain of Lakes Wells 1 and 2, were constructed in 2009, providing a total emergency peak capacity of 8.6 MGD. Five to seven additional wells will be constructed through buildout. The wells will be funded entirely from connection fees.

Program Contingency

The Program Contingency is intended to assure that adequate revenues are collected to fund total Expansion Program needs. Experience has demonstrated that environmental mitigation, regulatory standards, and other new requirements can substantially increase the cost of new facilities. In addition, as time passes, additional detailed and site-specific information can result in higher cost estimates for existing projects, and can also lead to new, currently unanticipated projects. Overall,

the program contingency is approximately 10% of the total project expenditures, which is considered reasonable and prudent to account for the uncertainties in future Expansion Program needs. Future updates of the Connection Fee Program will continue to refine the costs of future projects and adjust the connection fee to ensure future customers pay for only their share of the benefits.

Connection Fee Administration

Connection fee administration costs are calculated at 1% of connection fee revenues. These amounts are paid to the Retailers to cover their costs for administering connection fees on behalf of Zone 7. Between FY 12/13 through buildout, the total cost is estimated at \$8.7M.

CHAPTER 4. ESTABLISHMENT OF THE 2011 M&I CONNECTION FEE

A financial model was developed by Zone 7 staff based on the projected revenue stream and expenditures to develop a connection fee structure suitable to finance the Water System Expansion Program (Program). Municipal and Industrial (M&I) Connection Fees have historically been designed to fund all Program costs with the goal of 100% pay-as-you-go financing with connection fees and interest income earned on reserves in order to minimize risk to existing rate payers¹³. Zone 7 also has a goal of maintaining a minimum fund balance based on 50% of non-discretionary obligations for the following year. The connection fees are set to meet these goals.

The following sections present the recommended 2012 M&I Connection Fees and the associated preliminary funding outlook for Fund 73.

Determination of the 2012 Connection Fee

As described in **Chapter 3**, the Water System Expansion Program's future funding needs were updated based on Zone 7's latest planning efforts, and projections of new connections and demand growth. Based on the 2011 M&I Connection Fee Program Update, Zone 7 staff determined that *Zone 7's connection fees represent the reasonable costs of providing service to new customers*. This was done by applying projected inflationary adjustments to the existing connection fees over the years, and verifying that the goals described above are being met. Based on current projected program expenditures and revenue projections, inflationary adjustments will be necessary in the future; however, this will be verified in future re-evaluations of the Water System Expansion Program. **Section 4.2** presents more information on the financial model results based on the inflation-adjusted connection fee projections.

The inflationary adjustments are in accordance with Zone 7 Board Resolution No. 02-2450, which requires, at a minimum, an annual update based on the Engineering News Record Construction Cost Index (ENR CCI), or as warranted to keep pace with inflation. For the 2012 fees, staff therefore recommends adjusting the current fees based on the change in the ENR CCI from September 2010 to September 2011.

As previously mentioned in Section 3.3, the Dougherty Valley Connection Fee was designed to exclude those projects related to water acquisition and non-local storage; a separate fee is therefore calculated for Dougherty Valley. **Table 3-1** identifies those projects that benefit Dougherty Valley.

Table 4-1 shows the recommended connection fees per Dwelling Unit Equivalent (DUE) to be effective January 1, 2012, as well as the Board-approved connection fees for 2011. As noted in Section 2.3.1, a DUE represents the 5/8-inch meter typically used in a single-family residential home. Connection fees for larger meter sizes are calculated by multiplying the fee for a 5/8-inch meter by the conversion factors listed in **Table 2-2** for the appropriate type of meter.

¹³ A recent exception is the \$60M Installment Sale Agreement (short-term loan) with Wells Fargo to pay for a portion of Altamont Water Treatment Plant and Pipeline project. To fund the Altamont Pipeline - Livermore Reach, \$30.5M was used; \$29.5M was returned to Wells Fargo because construction of the Altamont Water Treatment Plant has been deferred.

Table 4-1. Adopted Connection Fees for 2011 and Recommended Connection Fees for 2012

Effective Period	Alameda County (\$/DUE)	Dougherty Valley (\$/DUE)
Effective January 1, 2011	\$22,230	\$20,580
Recommended to be effective January 1, 2012 (3.2% Increase*)	\$22,930	\$21,230

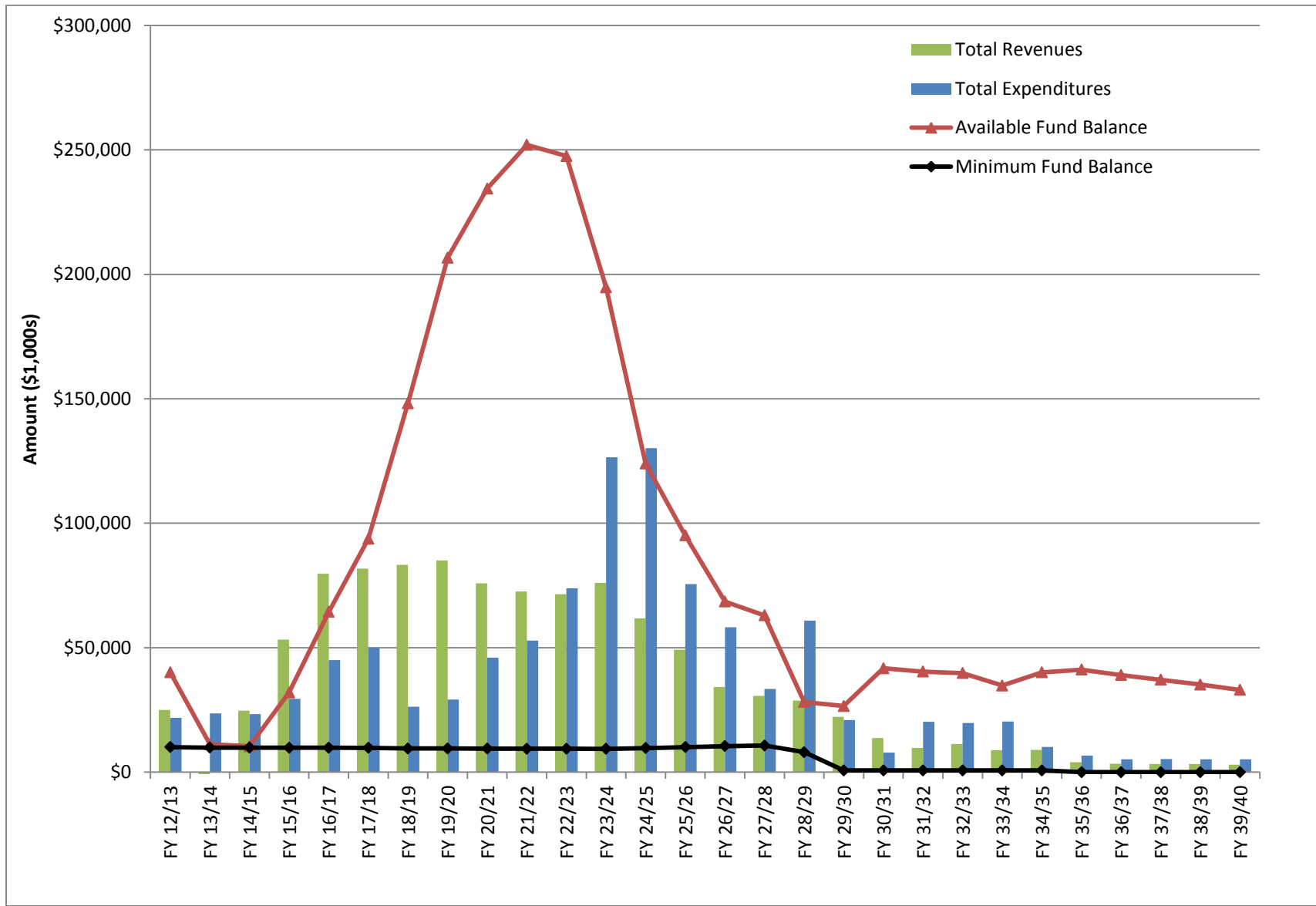
* Based on the change in the ENR CCI from September 2010 to September 2011.

Preliminary Funding Outlook

Based on the recommended connection fees for 2012, and assuming routine inflation-based adjustments, **Figure 4-1** shows the preliminary funding outlook for Fund 73 – Expansion through buildout using Zone 7’s financial model. It includes total expenditures (project expenditures, contingency, and administration fees), total revenues, fund balances, and the minimum fund balance for each year. As shown, the fund balances are maintained above the minimum fund balance. The minimum fund balance drop significantly after FY 29/30 because the sinking funds are expected to have built up sufficient reserves at this time to pay the remainder of non-discretionary obligations. The available fund balances increase to a peak in FY 21/22, when major expansion projects are expected to occur (see **Figure 3-1**). In FY 39/40, the available fund balance is estimated at \$33 million, or approximately three percent of the total Program expenditures (see **Table 3-1**); this essentially increases the contingency amount available for the Program.

Appendix D includes details on the inputs and results of the financial model, from FY 10/11 through FY 39/40.

Figure 4-1. Fund 73 (Expansion) Preliminary Funding Outlook Based on Recommended Connection Fees



CHAPTER 5. DOUGHERTY VALLEY FACILITY USE FEE

Dougherty Valley Facility Use Fee Calculation

In January 1998, DSRSD requested Zone 7's approval for expansion of its service area to include Dougherty Valley. Zone 7 agreed, and subsequently entered into two contracts that included provisions for securing the necessary water entitlements; water reliability protection; payment of annual costs; and escrow funds to prepay some of the identified costs to serve Dougherty Valley.

The *Water Service Escrow Agreement between Zone 7, DSRSD and Berrenda Mesa Water District and Amendment No. 1 to Contract between Zone 7 and DSRSD for M&I Water Supply (Amendment No. 1) (Appendix B)* were approved by the Zone 7 Board in April 1998 and February 2000, respectively. A significant component of the second contract was that new Dougherty Valley customers—in addition to funding Water System Expansion Program costs through Connection Fees and paying for operational costs through water rates—would pay a Facility Use Payment (Fee) to recognize the contributions made by Alameda County ratepayers to construct and maintain the water system. The Facility Use Fee would apply to each new Dougherty Valley connection to the existing system based on the Dwelling Unit Equivalents (DUEs).

Amendment No. 1 provides the details for the determination of the Facility Use Fee as follows: “Zone 7 shall adjust the Facility Use Payments at the times specified in this section by the Adjustment Index. The first adjustment to the Facility Use Payments shall go into effect no earlier than five years following the issuance of the first building permit for development in the Dougherty Valley Service Area. Subsequent adjustments shall occur at five (5) year intervals thereafter. Payments to Zone 7 under this section shall be collected in the same manner and be due at the same time as payments due under Section D.2.”

Amendment No. 1 further defines the “Adjustment Index” as: “The Adjustment Index” for the year in which the adjustment is being made shall mean a fraction, the numerator of which is the Construction Costs Index, 20-City Average published by the Engineering News Record (the ‘Construction Costs Index’) of the calendar year immediately preceding calendar year when the adjustment is being made, and the denominator of which shall be 5.858.3 (20-City Average as of December 1997).”

Recommendation for the 2012 Dougherty Valley Facility Use Fee

The initial fee established in 1997 was \$1,850 per DUE (effective January 1, 2002). The last update to this fee was in 2006, when it was increased by 33% for the five-year period based on the estimated increase in Engineering News Record Construction Cost Index (ENR CCI) from December 1997 to December 2006. The fee (\$2,460 per DUE) became effective January 1, 2007.

In accordance with the methodology for calculating the Facility Use Fee as defined in *Amendment No.1*, staff has determined the new fee to be \$2,890. The applicable Adjustment Index is 1.5614, based on the change in the ENR CCI between December 1997 to October 2011¹⁴. This is effectively an increase of 17.5% from the current fee of \$2,460. If adopted, this fee would become effective on January 1, 2012. **Table 5-1** presents the determination of the Dougherty Valley Facility Use Fee.

¹⁴ Latest ENR CCI available for 2011.

Table 5-1. Determination of the Recommended Dougherty Valley Facility Use Fee for 2012

VARIABLE	VALUE
20-City ENR CCI Average as of December 1997	5858
ENR CCI of the year immediately preceding – October 2011	9147
Percentage Increase	0.5614
Base Fee	\$1,850
Current Fee as of January 1, 2007	\$2,460
Recommended New Fee Effective January 1, 2012 (\$1,850 x [1+0.5614])	\$2,890
Increase from Current Fee (\$2,890 - \$2,460)/\$2,460 x 100%	17.5%

CHAPTER 6. SUMMARY AND RECOMMENDATIONS

Summary

Overall, a 32% population growth is expected in the Zone 7 service area over the next 30 years to a buildout population of 299,000. Between 2010 and 2040, Retailer water demands are expected to increase by 35% to a buildout demand of 56,600 AF.

For calculating the projected revenues from new connections, the gross estimate of 32,070 new connections from FY 10/11 through buildout was adjusted to subtract connections that have been prepaid (i.e., connection fees have been paid but the construction may not have occurred yet) and credits (i.e., new connections at Arroyo Vista that replace existing potable water connections). With the adjustments, the new connections producing revenue (“net connections”) total 30,446 Dwelling Unit Equivalents (DUEs). In addition, to account for the uncertainty in the rate of development, growth cycling was applied to the net connections. This effectively incorporates some conservatism in Zone 7’s planning for expenditures related to capital projects, partially addressing the uncertainty in the connection projections and giving better assurance that funds will be available when they are needed. Furthermore, the FY 10/11 value was set to the actual value, and the difference in projected versus actual for FY 10/11 was spread over the following three years. The high number of new DUEs projected for FY 15/16 in DSRSD’s Alameda County service area (1,590 DUEs) was re-distributed over a four-year period (FY 15/16 through FY 18/19).

Forty-two projects funded in whole or part by Fund 73 with a total funding need of \$1,069,388,000 through FY 39/40 have been identified. Zone 7 will continue to update its Capital Improvement Program – Ten-Year Plan every two years and changes in demands, new connections, and available funding will be incorporated into the ultimate scheduling of project construction; projects intended to meet new demands will be shifted according to when those demands are expected.

Recommendations

Under the 2011 M&I Connection Fee Program Update, Zone 7 staff determined that *Zone 7’s connection fees represent the reasonable costs of providing service to new customers*. The update recommends annual increases based on the Engineering News Record Construction Cost Index (ENR CCI) to account for the impact of inflation on future projects. For the 2012 fees, staff recommends adjusting the current fees to keep pace with inflation, based on the change in the ENR CCI from September 2010 to September 2011 (3.2%). For Alameda County, this would mean an increase in the Connection Fee from \$22,230 to \$22,930 per DUE. For Dougherty Valley, the Connection Fee would increase from \$20,580 to \$21,230 per DUE.

In accordance with the methodology set forth in *Amendment No. 1 to Contract Between Zone 7 Water Agency and Dublin San Ramon Services District for a Municipal and Industrial Water Supply*, the Dougherty Valley Facility Use Fee is adjusted for inflation based on the change in the ENR CCI between December 1997 and October 2011. Zone 7 staff recommends increasing the fee to \$2,890 per DUE, which equates to a 17.5% increase from the previous fee of \$2,460.

Appendix A

Connection Fee Ordinance No. FC 72-1

ORDINANCE NO. FC 72-1, AS AMENDED BY
ORDINANCES FC 77-2; FC 86-136; AND FC O-91-68

AN ORDINANCE ADOPTED PURSUANT TO SECTION 12.1 OF THE
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT ACT
IMPOSING A WATER CONNECTION CHARGE IN ZONE NO. 7

The Board of Supervisors of the Alameda County Flood Control and Water Conservation District do ordain as follows:

SECTION I

Declaration of Findings. The Board of Supervisors of Alameda County Flood Control and Water Conservation District has determined the necessity to make improvements to the Zone No. 7 water supply system. The District is empowered, pursuant to Section 12.1 of the Alameda County Flood Control and Water Conservation District Act, to prescribe and collect charges for water delivery and treatment facilities furnished or to be furnished within a zone of the District.

This Board does hereby find that continual improvement to the Zone No. 7 water supply system would be for the benefit of Zone No. 7 residents and property owners to meet increasing demands on the water supply system, to enhance the quality of water, to minimize harm from water shortages, to improve operational flexibility of the system, and to improve the reliability of water service, and that the public interest, necessity, convenience and general welfare of the residents and property owners of Zone No. 7 require the institution, construction and maintenance of said improvements. Revenues now available to the Zone will not be fully adequate to construct and maintain additional required facilities without substantial water or tax rate increases. In order to apportion more fairly the costs of new facilities on the basis of benefits conferred upon the property within the area, the charges hereinbelow indicated are hereby established on all new connections to any water system which is directly connected to the Zone No. 7 water supply system, to be utilized to accomplish proposed improvement in the water treatment and delivery system.

(Amended by Ord. FC 77-2)

SECTION II

Definitions. The definitions contained in this article shall govern the construction of this Ordinance unless required otherwise by context.

1. "District" means the Alameda County Flood Control and Water Conservation District.
2. "Board" means the Board of Supervisors of Alameda County Flood Control and Water Conservation District.
3. "Zone" means the Zone No. 7 of the Alameda County Flood Control and Water Conservation District.
4. "Zone Board" means the Board of Directors of Zone No. 7 of Alameda County Flood Control and Water Conservation District.
5. "Water supply system" means any combination of facilities that is capable of furnishing treated water service.
6. "New connection" means any new metered water service that will furnish water from a water supply system that is directly connected to the Zone No. 7 water supply system, including but not limited to water services that are part of any new development to be constructed.
7. "New development" means any improvement, building or buildings constructed subsequent to the effective date of this Ordinance.

(Amended by Ord. FC O-91-68)

SECTION III

Water Service Connection Charge Schedule. A basic charge of \$830.00 shall be multiplied by the fee factor indicated in the following schedule for each new connection to the water supply system subject to this Ordinance.

<u>Fee Factor</u>	<u>Meter Size</u>
5/8"	1.0
3/4"	1.5
1" (See Section VI. 1 below)	2.5
1-1/2"	5.0
2"	8.0

The determination of fee factors is based upon the recommended maximum rate for continuous operations in accordance with the American Water Works Association Standard C700-90

for Cold Water Meters-Displacement Type, Bronze Main Case. Fee factors for meters of special capacities and sizes other than those indicated in the above schedule shall be determined by the Zone. The administrative method for setting fee factors for meters of special capacities and sizes in effect on July 17, 1991, shall remain in effect through June 30, 1992. On July 1, 1992, new fee factors for meters of special capacities and sizes using a method that utilizes the recommended maximum rate for continuous operations shall go into effect.

For increasing the meter size or capacity on any existing connection, a charge shall be imposed equal to the product of the basic charge in effect at the time the meter exchange is requested and the difference in the fee factor between the new meter and the existing meter.

There shall be no refund of charges paid for decreasing the meter size or capacity.

(Amended by Ord. FC 0-91-68)

SECTION IV

Disposition of Charges. All charges collected under the provision of this Ordinance, and a portion of water sales revenues as deemed appropriate by the Zone Board, shall be deposited with the Treasurer of the District, said funds to be designated "Zone 7 Water Facilities Fund." Said funds shall be utilized for the accomplishment of proposed improvements to the Zone No. 7 water supply system, and shall be expended for administration, land acquisition, construction, engineering, repair, maintenance and operation, or reimbursement or retirement of bonded indebtedness incurred for same, in whole or in part, of the water supply facilities within Zone No. 7. Provided, however, that said funds shall not be utilized for the retirement of bonded indebtedness on Zone No. 7 projects incurred prior to January 18, 1972.

(Amended by Ord. FC 77-2)

SECTION V

Collection of Charges. Charges provided for herein shall be collected by the Zone, or the appropriate City Building Official if the improvement is located within an incorporated city, prior to the issuance of a building permit or a use permit for such improvement. In cases where permits are not required, payment of charges shall be made to the Zone or appropriate City Building Official prior to installation of a new connection. Collection by the appropriate City Building Official shall be

authorized by agreement between the affected city and District, said agreement to be approved by Zone Board and forwarded to Board for execution, following execution of said agreement by city.
(Amended by Ord. FC 77-2)

SECTION VI

Exemptions.

1. No charge shall be collected for separate private fire service connections. Combined domestic and fire service connections shall be subject to the connection charge based on the meter size for the combined system, except the basic charge shall be collected for combined systems, up to a maximum one-inch (1") meter size, for single family and duplex housing units with fire sprinkler systems approved by the appropriate fire department and installed in accordance with applicable building requirements.

2. No charge shall be collected for future connections of any existing building or buildings to a water supply system that is directly connected to the Zone No. 7 water supply system if the building or buildings are occupied and supplied by an independent water supply system on or before January 18, 1972. This exemption shall become null and void effective July 1, 1992.
(Amended by Ord. FC O-91-68)

SECTION VII

Review of Water Connection Charge. The water connection charge provided for hereinabove, its manner of collection and disposition shall be subject to periodic review and modification at the discretion of the Zone Board.

SECTION VIII

Severability. If any section, sub-section, paragraph, sub-paragraph, sentence, clause or phrase of this Ordinance is for any reason held to be invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the validity or constitutionality of the remaining portions of this Ordinance; and the Board declares that this Ordinance and each section, sub-section, paragraph,

sub-paragraph, sentence, clause and phrase thereof would have been adopted irrespective of the fact that one or more of such section, sub-section, paragraph, sub-paragraph, sentence clause or phrase be declared invalid or unconstitutional.

SECTION IX

Opinions and Determinations. Where this Ordinance provides for action to be based upon the opinion, judgment, approval, review or determination of the Zone Board, it is not intended to be and shall never be construed as permitting such opinion, judgment, approval, review or determination to be arbitrary, capricious or unreasonable.

SECTION X

Payment Before Effective Date. Nothing in this Ordinance shall prohibit payment of charges provided for herein prior to the effective date of this Ordinance. The funds so collected shall be applied in the same manner and for the same purposes as those required for collections after the effective date of this Ordinance.

SECTION XI

Contest of Charges. For purposes of this Ordinance, the Zone Board shall act as hearing Board in any contest of charges imposed under this Ordinance, and said Zone Board shall notice and conduct full and fair hearings consistent with due process and base its decision upon competent evidence. Said Zone Board shall adopt reasonable rules and regulations for the conduct of its affairs under this Ordinance. Appeals from the decision of the Zone Board shall be to the Board of Supervisors of Alameda County Flood Control and Water Conservation District, and shall be a hearing de novo upon the issues of the appeal. Notice of appeal from the decision of the Zone Board shall be made within 30 days of any final determination by Zone Board.

SECTION XII

Effective Date. This Ordinance is an urgency ordinance necessary for the preservation of the public peace, health, safety and welfare and shall go into effect immediately upon the date of adoption thereof, to wit January 18, 1972. The facts constituting such necessity are that failure of a recent bond election and resultant shortage of funds for improvement or expansion of necessary water treatment and delivery facilities has resulted in a projected need for water rationing in the Livermore-Amador Valley Area due to an increasingly heavy burden on existing facilities following a steady increase in population and residential construction in that Area. The proposed charges to be imposed pursuant to this Ordinance will be applied toward the construction of the needed facilities. Before the expiration of fifteen (15) days after the passage of this Ordinance it shall be published once with the names of members voting for and against the same in The Inter-City Express, a newspaper published in the said County of Alameda.

Adopted by the Board of Supervisors of the Alameda County Flood Control and Water Conservation District on this 18th day of January, 1972, by the following called vote:

AYES: Supervisors Bort, Cooper, Murphy, Razeto and Chairman Hannon - 5

NOES: Supervisors None

EXCUSED: Supervisors None

Chairman of the Board of Supervisors of the
Alameda County Flood Control and Water
Conservation District

ATTEST:

Clerk of the Board of Supervisors of
the Alameda County Flood Control and
Water Conservation District

Appendix B

Amendment No.1 to Contract Between Zone 7 Water Agency And Dublin San Ramon Services
District for Municipal Water Supply

**AMENDMENT NO. 1 TO CONTRACT BETWEEN ZONE 7 WATER AGENCY AND
DUBLIN SAN RAMON SERVICES DISTRICT FOR A MUNICIPAL &
INDUSTRIAL WATER SUPPLY**

This Amendment No. 1 to Contract Between Zone 7 Water Agency and Dublin San Ramon Services District for a Municipal & Industrial Water Supply (the "**Amendment**") is entered into as of 2/7/2000, 1998, (the "**Effective Date**") by and between ZONE 7 OF ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, commonly known as the Zone 7 Water Agency ("**Zone 7**"), and DUBLIN SAN RAMON SERVICES DISTRICT ("**Contractor**").

RECITALS

A. Zone 7 and Contractor have entered into that certain Contract between Zone 7 of Alameda Flood Control and Water Conservation District and Dublin San Ramon Services District for a Municipal & Industrial Water Supply, dated as of August 23, 1994 (the "**Water Supply Contract**"). Pursuant to and as more fully set forth in the Water Supply Contract, Zone 7 has agreed to furnish and provide to Contractor, and Contractor agreed to purchase and accept, a water supply for municipal and industrial uses.

B. Pursuant to Section 6 of the Water Supply Contract, Contractor has requested Zone 7's approval of an expansion of Contractor's "Service Area" under the Water Supply Contract to include approximately 4,400 acres of real property located outside of the boundaries of Zone 7 as shown on **Figure 1** attached hereto (the "**Dougherty Valley Service Area**"). The County of Contra Costa has adopted plans and permits authorizing the development, within the Dougherty Valley Service Area, of a mixed-use community including up to 9784 residential dwelling units and associated commercial, civic and other uses. Contra Costa County's plans designate Contractor as the primary provider of treated water to the Dougherty Valley Service Area and the owners of property of said Area, Windemere Ranch Partners ("**Windemere**") and Shapell Industries, Inc. ("**Shapell**"), have requested Contractor to provide such service.

C. The property in the Dougherty Valley Service Area owned by Windemere has been annexed to Contractor and is within Contractor's sphere of influence; the property in the Dougherty Valley Service Area owned by Shapell is within Contractor's sphere of influence.

D. On September 13, 1994, Contractor and the Berrenda Mesa Water District ("BMWD") entered into an agreement for Contractor to purchase BMWD rights for 7,000 acre-feet of firm water entitlement from State Water Project for use in the Dougherty Valley Service Area with an option to purchase an additional 5,000 acre-feet.

E. Instead of using the aforementioned agreement between Contractor and BMWD for the water supply for Dougherty Valley Service Area, Zone 7 is concurrently herewith entering into an agreement with BMWD ("the Water Purchase Agreement") to purchase 7,000 acre feet annually of firm water entitlement from the State Water Project (the "**Water Entitlement**") to

provide water for the Dougherty Valley Service Area. Concurrently with this agreement, Contractor and BMWD are terminating their Water Purchase Agreement, dated September 13, 1994, with the exception of the provision of that agreement providing Contractor with an option to purchase 5,000 acre-feet of water from BMWD.

F. Zone 7 concurrently herewith is entering into an agreement with the Semitropic Water Storage District ("**Semitropic**") pursuant to which Semitropic will agree to store water for Zone 7 so that Zone 7 may supplement the water available from the Water Entitlement to maintain the reliability of the service to the Dougherty Valley Service Area and enhance Zone 7's ability to serve its existing customers and future customers within Zone 7.

G. Zone 7 and Contractor desire to amend the Water Supply Contract to expand Contractor's service area and to establish certain terms and conditions pursuant to which Zone 7 will furnish and provide water to Contractor for delivery to the Dougherty Valley Service Area.

AMENDMENT NO. 1 TO THE WATER SUPPLY CONTRACT

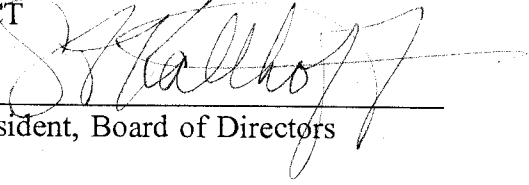
NOW, THEREFORE, Zone 7 and Contractor hereby mutually agree to amend the Water Supply Contract as follows:

1. Contractor's Service Area. The Dougherty Valley Service Area, as delineated in Figure 1, is hereby added to the Contractor's Service Area as defined in and pursuant to Section 6 of the Water Supply Contract.
2. Special Provisions for Water Supplied to Contractor for Use in the Dougherty Valley Service Area. Those certain terms and conditions described more fully in **Appendix 1**, attached hereto, are hereby appended to and incorporated into the Water Supply Contract and shall govern the provision of services to the Dougherty Valley Service Area.
3. Ratification of Water Supply Contract. Except as modified by this Amendment, the Water Supply Contract and all provisions contained therein shall remain unchanged.
4. Counterparts. This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same document.
5. Effective Date. This amendment shall not become effective until the close of escrow pursuant to the Water Service Escrow Agreement entered into concurrently herewith.
6. Interpretation. To the extent any provisions of this Amendment and/or **Appendix 1** are inconsistent with any provisions of the Water Supply Contract, the provisions of this Amendment and/or **Appendix 1** shall control with respect to the Dougherty Valley Service Area. Otherwise, the terms of the Water Supply Contract, as amended by this Amendment, shall remain in full force and effect.

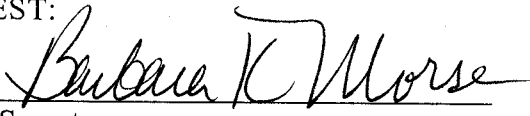
IN WITNESS WHEREOF, this Amendment has been executed as of the day and year first above written.

ZONE 7:

ZONE 7 OF ALAMEDA COUNTY FLOOD
CONTROL AND WATER CONSERVATION
DISTRICT

By: 
Its: President, Board of Directors

ATTEST:

By: 
Its: Secretary

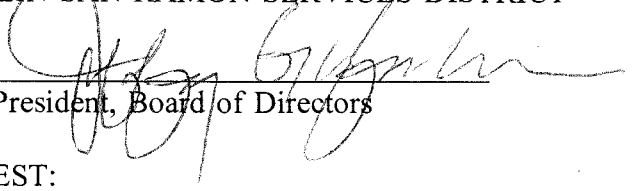
APPROVED AS TO FORM:

DOUGLAS HICKLING
COUNTY COUNSEL

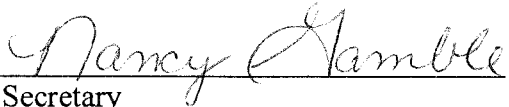
By: 
Deputy County Counsel

Contractor:

DUBLIN SAN RAMON SERVICES DISTRICT

By: 
Its: President, Board of Directors

ATTEST:

By: 
Its: Secretary

APPROVED AS TO FORM:

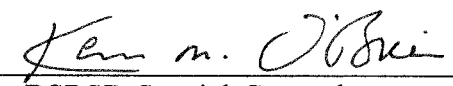
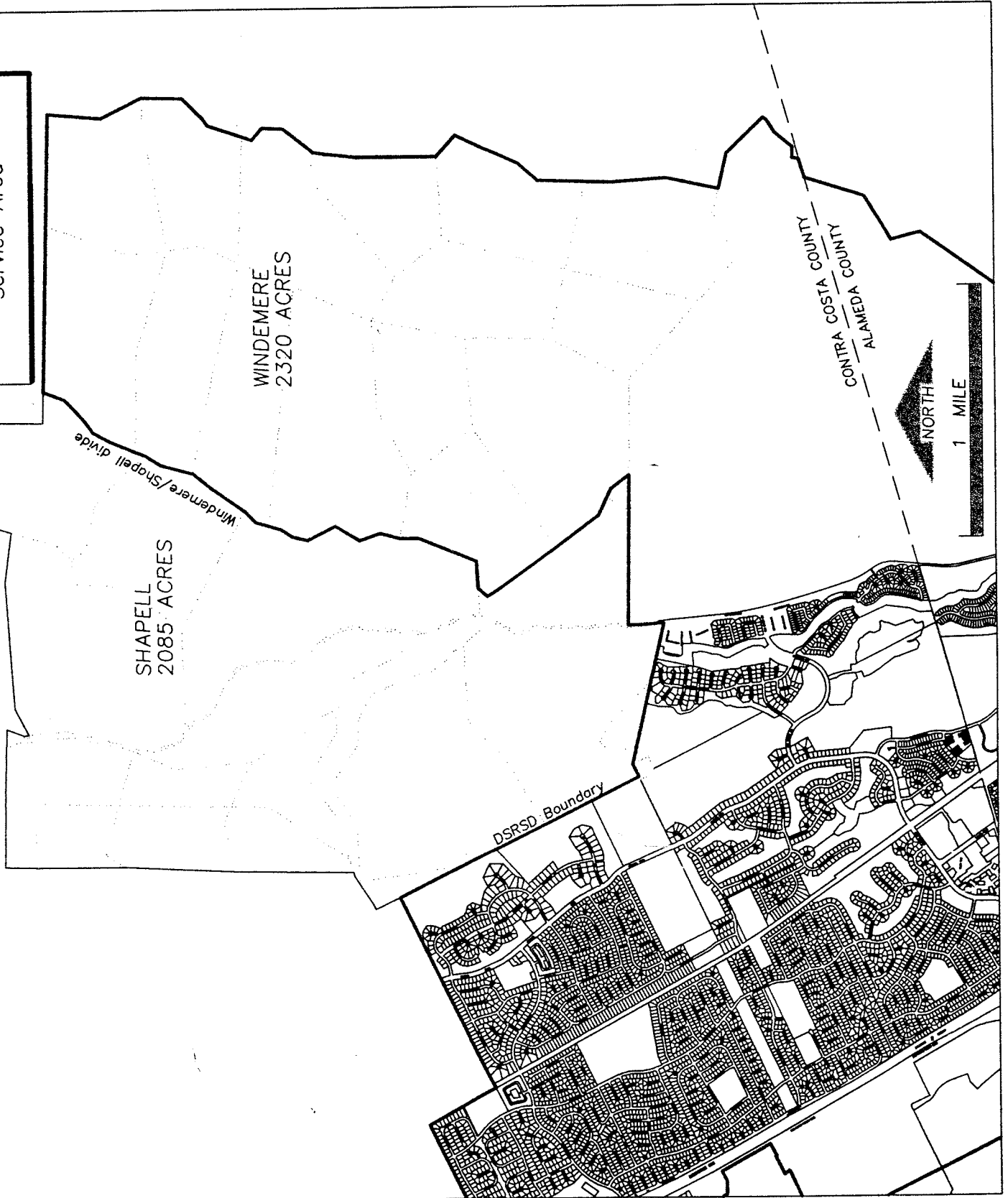
By: 
DSRSD Special Counsel

Figure 1
Map of Dougherty Valley
Service Area



APPENDIX I
SPECIAL PROVISIONS
FOR WATER SUPPLIED TO CONTRACTOR
FOR USE IN THE DOUGHERTY VALLEY SERVICE AREA

A. DEFINITIONS

"Adjustment Index" for the year in which the adjustment is being made shall mean a fraction, the numerator of which is the Construction Costs Index, 20-City Average, published by the Engineering News Record (the "Construction Costs Index") of the calendar year immediately preceding the calendar year when the adjustment is being made, and the denominator of which shall be 5,858.3 (20-City Average as of December 1997). If publication of the Construction Cost Index ceases or if the basis for the index is substantially modified, Zone 7 and Contractor shall mutually agree on an alternative index.

"Amendment" shall mean this Amendment No. 1 to the Water Supply Contract.

"Annual Water Supply Report" shall mean that certain annual report required to be delivered by Contractor to Zone 7 pursuant to Section C of this Appendix.

"Dougherty Valley Service Area" shall mean, as delineated in Figure 1 of the Amendment, that geographic area added to Contractor's Service Area under the Water Supply Contract pursuant to this Amendment

"Dougherty Valley Service Area Allotment" equals the Water Entitlement multiplied by a factor based on the Department of Water Resources' latest estimate of long-term State Water Project annual yield, as determined and used by Zone 7 for water supply planning purposes. This factor is currently 75%. The factor will be the same for water conveyed to DSRSD for delivery to the Dougherty Valley Service Area as it will be for State Water Project water being delivered within Zone 7's boundaries. Zone 7 and Contractor recognize that the long-term State Water Project yield is based on hydrological records and applicable regulatory requirements that are subject to change over time. Zone 7 will meet and confer with Contractor prior to changing the yield estimate. The current Dougherty Valley Service Area Allotment is: 7,000 acre feet (the Water Entitlement, defined below) x .75 (the current factor for the long-term State Water Project yield) = 5,250 acre feet per year.

"DWR" shall mean State of California Department of Water Resources.

"DWR/Zone 7 Agreement" shall mean the Contract between the State of California Department of Water Resources and Alameda County Flood Control and Water

Conservation District for a Water Supply for Zone No. 7, dated November 21, 1961, as amended.

"DWR/Zone 7 Amendment No. 19" shall mean the amendment to the DWR/Zone 7 Agreement whereby DWR agrees to convey the Water Entitlement to Zone 7.

"New Connection" shall mean any new metered water service within the Dougherty Valley Service Area that will furnish water from a water supply system that is connected to the Zone 7 water supply system or to the Livermore-Amador Valley Main Groundwater Basin (as defined in the Water Supply Contract), including but not limited to water services that are part of any new development to be constructed.

"Semitropic" shall mean the following public entities: Semitropic Water Storage District, Semitropic Improvement District, Buttonwillow Improvement District and the Pond-Poso Improvement District of the Semitropic Water Storage District, collectively.

"Semitropic Agreement" shall mean the agreement between Zone 7 and Semitropic, entered concurrently herewith, whereby Semitropic agrees to provide groundwater storage space for Zone 7's use.

"Tax Override Charges" shall mean those certain State Water Project expenses that Zone 7 pays for through an ad valorem tax levied on property owners within Zone 7 (denoted as "Flood Zone 7 State Water" on the property tax bill) as authorized under Section 36 of the California Water Code, Appendix 55 ("the District Act") and other applicable state laws. Zone 7 currently determines the Tax Override Charges based on the following State Water Project charges as invoiced by DWR: 1) Water System Revenue Bond Surcharge; 2) Capital Cost Component -- Transportation Charge; 3) Minimum Operating Maintenance, Power and Replacement Component -- Transportation Charge; and 4) Off-Aqueduct Power Facilities. Zone 7 may include other DWR charges as Tax Override Charges in accordance with applicable law, as long as such other charges are prospective in nature and charged as Tax Override Charges on property owners within Zone 7.

"Water Connection Charge Program" shall mean Zone 7's Water Connection Charge Program, as updated from time to time.

"Water Entitlement" shall mean that certain 7,000 acre feet of firm water entitlements that Zone 7 has agreed to purchase concurrently herewith from the Berrenda Mesa Water District ("BMWD") as set forth in the Water Purchase Agreement.

"Water Purchase Agreement" shall mean that certain agreement between Zone 7 and BMWD pursuant to which Zone 7 has agreed concurrently herewith to purchase, and BMWD agreed to sell, the Water Entitlement.

B. DELIVERY

1. Water Supply. Subject to, and as set forth in, the terms and conditions of this Amendment, Zone 7 shall provide Contractor with a supply of treated water for the Dougherty Valley Service Area.
2. Preliminary Water Delivery Schedule. Section 10 of the Water Supply Contract requires Contractor, on an annual basis, to submit to Zone 7 a preliminary water delivery schedule indicating the quantity of water anticipated by Contractor to be required for Contractor's service area during each month of the succeeding five (5) calendar years. Each such preliminary water delivery schedule shall hereafter include a separate itemization of water anticipated by Contractor to be required for the Dougherty Valley Service Area during such five-year period and be accompanied by the "**Annual Water Supply Report**" described in Section C below.
3. Review and Approval by Zone 7. Zone 7 shall review the Preliminary Water Delivery Schedule in accordance with Section 10 of the Water Supply Contract. Zone 7 may only revise or disapprove contractor's delivery request for the Dougherty Valley Service Area for the reasons set forth in Sections 12 (Peak Demands), 13 (Curtailed of Delivery During Maintenance Periods), 14 (Availability of Water), or 15 (Suspension of Service) of the Water Supply Contract, or as described in Section B4, B5 and D1 below.
4. Limitations on Deliveries. Notwithstanding any other provision of this Amendment, Zone 7 shall have no obligation under this Amendment, in any year, to deliver water to the Dougherty Valley Service Area in excess of the Dougherty Valley Service Area Allotment.
5. Shortfalls. If a delivery schedule submitted to Zone 7 for the Dougherty Valley Service Area pursuant to paragraph B.2 above exceeds the Dougherty Valley Service Area Allotment for any year covered by the preliminary water delivery schedule, Zone 7 shall immediately deliver notice to Contractor of the shortfall, and Contractor, shall either (i) use its best efforts to secure additional water supplies adequate to eliminate such projected shortfall prior to its occurrence, or (ii) submit a revised delivery schedule that does not result in a shortfall. Zone 7 is under no obligation pursuant to this Amendment to seek additional water supplies for the Dougherty Valley Service Area if Contractor's request exceeds the Dougherty Valley Service Area Allotment in any year. Zone 7 shall use its best efforts to facilitate the transfer and use of any additional water supplies obtained through the efforts of the Contractor.

C. REPORTS

1. Annual Water Supply Report. Contractor shall measure and report to Zone 7 annually on treated water usage within the Dougherty Valley Service Area. Contractor's annual report to Zone 7 (the "Annual Water Supply Report") shall include a description of, among other things, (i) water deliveries by month for the past year; (ii) number and size of current service connections; and (iii) number and size of New Connections established over the preceding

year. The measurement and recordation of such water deliveries shall be subject to the same provisions for inspection and testing of meters and instrumentation by Zone 7 as is provided to Contractor in Section 8 of the Water Supply Contract. The Annual Water Supply Report shall be prepared and submitted by Contractor in a form acceptable to Zone 7 and due by March 1 of the following year.

2. Monthly Water Delivery Report. Section 11 of the Water Supply Contract requires Contractor to report to Zone 7 on or before the tenth day of each month the total volume, in acre-feet, of groundwater extracted from the Main Basin and any water obtained from "Other Sources" (as defined in the Water Supply Contract) for the preceding month. This report shall be expanded to include water supplied by Contractor to the Dougherty Valley Service Area from all sources during such preceding month, based on all metered flows to the Dougherty Valley Service Area (the "**Monthly Water Delivery Report**").

D. PAYMENTS

1. Treated Water Rate. Contractor shall pay Zone 7 for water delivered by Zone 7 to Contractor for the Dougherty Valley Service Area in accordance with the provisions of Section D of the Water Supply Contract. If any payments required under the provisions of Section D of this Appendix are not received by the due date, Contractor shall be subject to suspension of service and the accrual of interest as provided in the Water Supply Contract under Sections 15 and 28 respectively. Zone 7 shall not be obligated to provide water for any demands resulting from New Connections for which Contractor has not made Water Connection Payments or Facility Use Payments pursuant to Sections D.2 and D.3, below.

2. Water Connection Payments. Contractor shall make payments to Zone 7 to compensate Zone 7 for the Dougherty Valley Service Area's share of Zone 7's Capital Expansion Program. For each New Connection in the Dougherty Valley Service Area, Contractor shall pay Zone 7 an amount, established by the Zone 7 Board by resolution, to Zone 7's Capital Expansion Program. The amount due for each New Connection will equal the connection charges within the Zone 7 boundaries less the sums included in the Zone 7 connection charge for obtaining additional water entitlements and additional storage, as Contractor has already provided the Water Entitlement and storage for the Dougherty Valley Service Area. Payments to Zone 7 shall be due within 30 days from the date upon which the building permit for the property receiving the New Connection was issued or 30 days from the date that the New Connection is made, whichever is earlier.

3. Facility Use Payments. Contractor agrees to compensate Zone 7 for use of Zone 7's existing facilities in providing water to the Dougherty Valley Service Area. Contractor shall make payments to Zone 7, hereinafter referred to as Facility Use Payments, as Contractor permits New Connections in the Dougherty Valley Service Area. The Facility Use Payments shall be \$1,850 per New Connection of the basic connection size, 5/8" meter. The amount of said Facility Use Payments are based on the pro rata share of the current value of Zone

7's capital assets. The Facility Use Payments for New Connections of other sizes shall be adjusted by the "fee factor" contained in the Zone 7 Water Connection Charge Ordinance, Section III.

Zone 7 shall adjust the Facility Use Payments at the times specified in this section by multiplying \$1,850 by the Adjustment Index. The first adjustment to the Facility Use Payments shall go into effect no earlier than five years following issuance of the first building permit for development in the Dougherty Valley Service Area. Subsequent adjustments shall occur at five (5) year intervals thereafter. Payments to Zone 7 under this section shall be collected in the same manner and be due at the same time as payments due under Section D.2 (above).

4. Capital Expansion Water Facilities. Zone 7 shall keep Contractor apprised of Zone 7's progress in developing and constructing any capital water facilities that are necessary to provide service to Contractor for ultimate use in the Dougherty Valley Service Area. If Contractor determines, and Zone 7 concurs, that capital facilities required by Zone 7 to provide water to Contractor pursuant to this Amendment will not be available in time for Zone 7 to make requested deliveries under this Amendment, Contractor may elect to design and construct such capital facilities, and Zone 7 will reduce future connection payments pursuant to Paragraph D.2 (above) by the costs incurred by Contractor.

5. Surcharge for Water Service for Dougherty Valley Service Area. Contractor shall pay Zone 7 a surcharge for water service for the Dougherty Valley Service Area to compensate Zone 7 for additional State Water Project charges incurred by Zone 7 as a result of providing water to the Dougherty Valley Service Area. The surcharge shall equal the Dougherty Valley Service Area's proportionate share of the total Tax Override Charges, calculated as follows: (6,080 (the estimated amount of water entitlement necessary to supply the Dougherty Valley Service Area with 4,560 acre-feet of water per year given a State Water Project long-term yield of 75%)/Zone 7's total State Water Project entitlement) multiplied by the total Tax Override Charges.

$$\frac{\left(\frac{4,560}{\text{factor used to determine SWP long-term yield}} \right)}{\text{Zone 7's Total State Water Project entitlement (in acre-feet)}} \times \left(\frac{\text{Total Tax Override Charges}}{\text{Total Tax Override Charges}} \right) = \text{Annual surcharge per this paragraph}$$

Zone 7 receives a statement of charges from DWR on or about July 1st of the preceding calendar year for which the charges are payable. Zone 7 shall invoice the Contractor on or

about September 1st preceding the November 1st for which the surcharge shall be due. DWR may make subsequent adjustments to its statement of charges. Accordingly, Zone 7 will make revisions to said invoice by issuing an additional invoice or refund as appropriate.

If, at some future date, the Dougherty Valley Service Area is annexed to Zone 7 and Zone 7 levies the Tax Override Charges directly on Contractor's customers in the Dougherty Valley Service Area, the aforementioned surcharge shall automatically terminate and be of no further force and effect.

6. Other Charges. Zone 7 and Contractor acknowledge and agree that from time to time there may arise a need for the imposition of additional payments to ensure that the Dougherty Valley Service Area bears all costs associated with the provision of treated water thereto under this Amendment. However, Zone 7 shall not impose upon Contractor any payments or charges not imposed upon Zone 7's Other Contractors for any purposes other than to recover costs associated with delivering water to the Dougherty Valley Service Area pursuant to this Amendment.

E. ALTERNATIVE DELIVERY METHODS

If a court of competent jurisdiction determines, in a judgment that cannot be appealed, that Zone 7 cannot participate in water delivery to the Dougherty Valley Service Area pursuant to the terms of this Amendment, Zone 7 and Contractor agree to use their best efforts to negotiate a contract, pursuant to which Zone 7 can convey water to Contractor for service to the Dougherty Valley Service Area. To limit the possibility of any interruption of service to the Dougherty Valley Service Area, either Zone 7 or Contractor may request such negotiations to commence prior to the conclusion of any such litigation. Zone 7 and Contractor agree to negotiate the contract in accordance with the principles listed below:

1. Insofar as possible, the contract shall contain all of the same terms and condition as this Amendment, except that Zone 7 would transfer to Contractor (i) ownership the 6,080 acre-feet of water entitlement, (ii) the Zone 7's rights and obligations pursuant to the Semitropic Water Storage District contract, (iii) water in storage in Semitropic, (iv) Zone 7's interest in any security instrument relating to the provision of water to the Dougherty Valley Service Area and (v) any remaining funds paid to Zone 7 by Contractor for the purpose of Zone 7 making payments to Semitropic.
2. Upon such transfer, Contractor would become solely responsible for all costs and other obligations associated with the entitlements, storage rights and service to the Dougherty Valley Service Area.
3. The parties agree to cooperate in good faith to obtain all administrative and regulatory approvals necessary for the transfer, and Contractor would pay all costs incurred by both parties in executing such a transfer.
4. Contractor would contract with Zone 7 to provide the services of water wheeling, treatment, seasonal storage and distribution through the Zone 7 system at a mutually agreeable price.
5. Contractor would not increase its use of the Main Groundwater Basin in excess of 1,400 AF of seasonal storage without the prior approval of Zone 7.
6. Contractor, upon consulting with Zone 7, would have the authority to determine the size of Semitropic Storage required for service to the Dougherty Valley Service Area.
7. Zone 7 would administer the DWR State Water Project contracts on behalf of DSRSD, as well as operations and conveyance of Semitropic Storage and the Water Entitlements.
8. Contractor will neither seek to materially alter its contractual relationship with Zone 7 nor terminate its Water Supply Contract with Zone 7 for the purposes of becoming an independent water purveyor for 30 years or until the specific termination date

contained in the existing Water Supply Contract between Zone 7 and DSRSD, whichever is longer.

Appendix C

Water System Expansion Program – Project Summaries

Expansion Project Summary Report

Project	Administrative & Engineering Building - Sinking Fund (Fund 73)		
Project ID:	SP11		
Strategic Plan Priority	1.3		
Project Description	In addition to the scheduled lease payment for the new building, \$696,000 plus interest per year will be contributed to this sinking fund in order to cover the purchase cost of the building after the lease payments have been completed in FY 2018/19.		
Justification	This sinking fund will cover the cost to purchase the new Administrative & Engineering Building after Zone 7's 15-year lease is completed.		
	Origin: Capital Improvement Program		
Responsible Section	ASD Administrative Services Division		
Operating Impact	None.		
In Service Date	Month: June	Year: 2019	
Source of Funds	Fund 73	Connection Fees 100%	
Total Project Cost	\$4,428,000		

Expansion Project Summary Report

Project	Administrative & Engineering Building Lease (Water System)		
Project ID:	SP1		
Strategic Plan Priority	1.3		
Project Description	A new office building has been constructed for administrative and engineering staff. The new building has a larger Board Room for public meetings. It is located closer to operations (treatment plants), and is more centrally located for employees and Valley residents. The cost is based on "Build to Suit" option and includes lease payments. In addition to the scheduled lease payment for the new building, \$696,000 plus interest per year will be contributed to a sinking fund in order to cover the purchase cost of the building after the lease payments have been completed in FY 2018/19.		
Justification	Engineering, administrative and operations staff were at different locations. This project has brought administrative and engineering at one site and brings both closer to operations. This project also accommodates future expansion. It reduces overall agency travel times, improves communications and staff productivity. Origin: Capital Improvement Program		
Responsible Section	ASD Administrative Services Division		
Operating Impact	Provides for more efficient and effective operations of administrative and engineering functions. Provides for secure Emergency Operations Center (EOC), as the new building meets strictest building and safety codes.		
In Service Date	Month: June Year: 2019		
Source of Funds	Fund 72	Water Rates	56%
	Fund 73	Connection Fees	44%
Total Project Cost	\$11,538,000		

Expansion Project Summary Report

Project	Arroyo Mocho Diversion Facility Coordination & Implementation		
Project ID:	COL9		
Strategic Plan Priority	1.1,1.4,		
Project Description	This project is located along Arroyo Mocho near Cope Lake and Lake H. The diversion structure would consist of a concrete foundation within Arroyo Mocho equipped with a diversion facility (e.g., Obermeyer gates or an inflatable rubber dam), along with other appurtenances necessary to accomplish water management in an environmentally sensitive way. The project would also include pipelines and other equipment necessary to control the diversion facility and move water into the chain of lakes. Hansen Aggregates is responsible for designing, permitting, and constructing the diversion facility at no cost to Zone 7; therefore, the costs below only reflect Zone 7 staff time to assist Hanson, as necessary, and costs for other necessary facilities (e.g., such as SCADA).		
Justification	Completion of this project is necessary to allow Zone 7 to manage water as described in the Specific Plan for Livermore-Amador Valley Quarry Area Reclamation.		
	Origin: Livermore-Amador Valley Quarry Area Reclamation Specific Plan, 2006 Stream Management Master Plan		
Responsible Section	IP	Integrated Planning	
Operating Impact	Adds new O&M and repair & replacement expenses for Zone 7.		
In Service Date	Month: October	Year: 2014	
Source of Funds	Fund 73	Connection Fees 100%	
Total Project Cost	\$871,000		

Expansion Project Summary Report

Project	Arroyo Mocho Low Flow Crossings	
Project ID:	COL8	
Strategic Plan Priority	1.4,1.1	
Project Description	This project provides stream channel improvements at two existing driveway crossings on the Arroyo Mocho off Mines Road to facilitate future artificial flow increases associated with the filling of the Chain of Lakes.	
Justification	Zone 7 plans to use Lakes H and I for artificial groundwater recharge. This initial Chain of Lakes operation requires Zone 7 to increase its typical releases from 20 cubic feet per second (cfs) to up to 50 cfs; however the higher flows will preclude access of two residences located across the stream from their Mines Road driveway entrances. These improvements are necessary to route a substantial portion of the artificial flows below the crossing surface to facilitate vehicular access to the residences. The project is an identified mitigation in the Mitigation Monitoring and Reporting Program (MMRP) for the Arroyo Mocho Diversion Project. Origin: Arroyo Mocho Diversion Project Mitigation Monitoring and Reporting Program, 2006 Stream Management Master Plan	
Responsible Section	GP Groundwater Protection	
Operating Impact	Increases water supply reliability. Increases channel maintenance costs.	
In Service Date	Month: October	Year: 2014
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$1,185,000	

Expansion Project Summary Report

Project	Bay Area Regional Desalination Project - Planning		
Project ID:	WP21		
Strategic Plan Priority	1.1,1.5		
Project Description	The Bay Area Regional Desalination Project (BARDP) is a joint effort with the San Francisco Public Utilities Commission (SFPUC), Santa Clara Valley Water District (SCVWD), East Bay Municipal Utility District (EBMUD), and Contra Costa Water District (CCWD) to develop a regional desalination facility. The facility would likely be located in eastern Contra Costa County with water wheeled to Zone 7 through a new intertie with EBMUD. The total project cost presented below includes Zone 7's share of estimated costs for the preliminary design and environmental permitting process; it assumes that the five-agency partnership moves forward with the BARDP after completion of the ongoing site-specific analysis.		
Justification	For Zone 7, the BARDP is a potential source of future water supply being evaluated along with other water supply options. The BARDP offers the benefit of a drought-resistant and high-quality water supply that reduces reliance on the SWP and diversifies Zone 7's existing water supply mix. Zone 7 can potentially receive up to 5,600 acre-foot of water every year, or only during normal/wet years, from the BARDP starting sometime between 2020 and 2025 Origin: 2010 Urban Water Management Plan, 2011 Water Supply Evaluation Report		
Responsible Section	IP Integrated Planning		
Operating Impact	Increased water reliability.		
In Service Date	Month: December	Year: 2015	
Source of Funds	Fund 73	Connection Fees	100%
Total Project Cost	\$931,000		

Expansion Project Summary Report

Project	Bay Delta Conservation Plan (Zone 7)	
Project ID:	WP17	
Strategic Plan Priority	1.7	
Project Description	This project covers Zone 7's internal staff time and legal costs associated with participating in the development of the Bay Delta Conservation Plan (BDCP). The BDCP is a Habitat Conservation Plan/Natural Community Conservation Plan that provides a more flexible basis for endangered species protection. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only..	
Justification	Develops a long-term plan for the Delta that ensures water supply reliability in the future through continued use of the Delta as a conveyance system for water imported from the Sierra Nevada. The Delta as a conveyance is threatened by fragile levees, seismic risk, climate change and uncertain environmental regulations.	
	Origin: Capital Improvement Program	
Responsible Section	OGM Office of the General Manager	
Operating Impact	Improved reliability.	
In Service Date	Month: June Year: 2017	
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$858,000	

Expansion Project Summary Report

Project	Bernal Wells 1 & 2 and Pipeline
Project ID:	W39
Strategic Plan Priority	1.4,1.8
Project Description	This project is Phase 4 of the Well Master Plan, and consists of two new municipal water supply wells and additional pipelines. The estimated project cost includes planning, site testing, test well/monitoring well, land acquisition, well design and drilling, facility design and construction, pipeline additions, and miscellaneous site work. The costs also include construction of a new pipeline, which is required Phase 4 to connect the new wells to Zone 7's existing distribution system.
Justification	Additional municipal water supply wells are required to maximize existing local storage in the Livermore Valley Groundwater Basin during droughts and facility outages. Maximizing local storage during drought and facility outages allows Zone 7 to meet projected water demands, even during worse-case drought conditions, as established in Zone 7 Resolutions 04-2662 and 06-2786. These wells will also provide Zone 7 more control over groundwater levels, groundwater flow, dissolved salt build-up/removal. Origin: 2003 Well Master Plan and 2011 WSE
Responsible Section	FE Facilities Engineering
Operating Impact	System reliability.
In Service Date	Month: April Year: 2030
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$49,070,000

Expansion Project Summary Report

Project	Busch-Valley Well 1
Project ID:	W38
Strategic Plan Priority	1.4,1.8
Project Description	This project is Phase 3 of the Well Master Plan, and consists of one new municipal water supply well and additional pipelines. The estimated project cost includes planning, land acquisition, well design and drilling, facility design and construction, pipeline additions, and miscellaneous site work. The costs also include construction of a new pipeline, which is required for Phase 3 to connect the new well to Zone 7's existing distribution system.
Justification	Additional municipal water supply wells are required to maximize existing local storage in the Livermore Valley Groundwater Basin during droughts and facility outages. Maximizing local storage during drought and facility outages allows Zone 7 to meet projected water demands, even during worse-case drought conditions, as established in Zone 7 Resolutions 04-2662 and 06-2786. These wells will also provide Zone 7 more control over groundwater levels, groundwater flow, and dissolved salt build-up/removal. Origin: 2003 Well Master Plan and 2011 WSE
Responsible Section	FE Facilities Engineering
Operating Impact	System reliability.
In Service Date	Month: April Year: 2025
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$15,940,000

Expansion Project Summary Report

Project	Capital Improvement Program Management		
Project ID:	SP13		
Strategic Plan Priority	1.3		
Project Description	Ongoing program management of the Capital Improvement Program (CIP) including annual report preparation, Zone 7 labor and other CIP related efforts.		
Justification	Provides for better tracking of program management costs. Origin: Capital Improvement Program		
Responsible Section	ASD Administrative Services Division FE Facilities Engineering		
Operating Impact	None		
In Service Date	Ongoing		
Source of Funds	Fund 50	Flood Control/General Fund	3%
	Fund 72	Water Rates	20%
	Fund 73	Connection Fees	75%
	Fund 76	Flood Protection and Special Drainage Area	2%
Total Project Cost	\$5,103,000		

Expansion Project Summary Report

Project	Cawelo Groundwater Banking Program
Project ID:	WP11
Strategic Plan Priority	1.1,1.8
Project Description	On June 21, 2006, the Zone 7 Board of Directors approved an agreement with the Cawelo Water District (a member unit of Kern County Water Agency) for a water banking and exchange program. The banking program will increase Zone 7's dry-year water supply by up to 10,000 acre-feet per year. Zone 7 will be able to store up to 120,000 acre-feet of water within the Cawelo Water District area. Cawelo financed this program by a \$21.55 million sale of Certificates of Participation (COP) on August 15, 2006. The COPs run through 2035 with an interest rate of 4% that increases to 4.67% by 2035. By agreement, Zone 7 will reimburse Cawelo for the COP annual debt service of about \$1.3 million per year.
Justification	Increases reliability by providing additional water supplies during drought years. Origin: 1999 Water Supply Plan
Responsible Section	FE Facilities Engineering
Operating Impact	Increased operational reliability.
In Service Date	Month: June Year: 2035
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$38,515,000

Expansion Project Summary Report

Project	Chain of Lakes Facilities and Improvements - Water Supply		
Project ID:	COL10		
Strategic Plan Priority	1.2,1.4,1.1,2.7		
Project Description	This project consists of the design and construction of elements of the Chain of Lakes identified and recommended for water supply needs by near-term and long-term planning efforts completed as part of the Chain of Lakes Program Management and Planning project, or projects required to operate and maintain the Chain of Lakes for water supply purposes. Examples of projects that could be completed under this project include, but are not limited to, diversion structure-related improvements, pump stations, pipelines, flow meters, water level meters, recharge monitoring piezometers, fencing, access roads, and slope re-grading and landscaping. Projects related to Flood Control are included in the CIP as separate projects (not part of this project).		
Justification	The Chain of Lakes are a series of gravel mining pits that will be dedicated to Zone 7 over the next 20 to 30 years for water management purposes. More specifically, these series of lakes will allow Zone 7 to reduce evaporative losses and implement mitigative measures for salt loading in the Livermore Valley Groundwater Basin, and enhance artificial recharge and flood protection activities. All of these activities are necessary to providing a reliable supply of high quality water and an effective flood control system to the Livermore-Amador Valley. This project will allow Zone 7 to design and implement the projects necessary for Zone 7 to use the Chain of Lakes for water supply after dedication. Origin: 2006 Stream Management Master Plan, 2011 Water Supply Evaluation Report		
Responsible Section	FE Facilities Engineering		
Operating Impact	Increase of water supply reliability. Increased O&M costs.		
In Service Date	Month: December	Year: 2035	
Source of Funds	Fund 72	Water Rates	30%
	Fund 73	Connection Fees	70%
Total Project Cost	\$77,947,000		

Expansion Project Summary Report

Project	Chain of Lakes Master Planning
Project ID:	COL6
Strategic Plan Priority	1.1
Project Description	This project consists of the near-term and long-term management and planning necessary to integrate the Chain of Lakes into Zone 7's water supply system, and into various general plans, specific plans, on-going construction, or other activities in the Livermore-Amador Valley. Program elements may include coordinating with the California High Speed Rail Authority. Master planning will incorporate the recommendations from other Zone 7 planning efforts, including the Stream Management Master Plan and the Water System Master Plan update.
Justification	The Chain of Lakes are a series of gravel mining pits that will be dedicated to Zone 7 over the next 20 to 30 years for water management purposes. More specifically, these series of lakes will allow Zone 7 to reduce evaporative losses and implement mitigative measures for salt loading in the Livermore Valley Groundwater Basin, and enhance artificial recharge and flood protection activities. All of these activities are necessary to providing a reliable supply of high quality water and an effective flood control system to the Livermore-Amador Valley. This project will allow Zone 7 to design and implement the projects necessary for Zone 7 to use the Chain of Lakes for water supply after dedication. Origin: 2006 Stream Management Master Plan, 2011 Water Supply Evaluation Report
Responsible Section	IP Integrated Planning
Operating Impact	Enhances Zone 7's ability to manage water.
In Service Date	Month: June Year: 2013
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$6,175,000

Expansion Project Summary Report

Project	Chain of Lakes Well 5
Project ID:	W37
Strategic Plan Priority	1.4,1.8
Project Description	This project is Phase 2A of the Well Master Plan, and consists of one new municipal water supply well and additional pipelines. The estimated project cost includes planning, easement acquisition, well design and drilling, facility design and construction, pipeline additions, and miscellaneous site work.
Justification	Additional municipal water supply wells are required to maximize existing local storage in the Livermore Valley Groundwater Basin for use during droughts and facility outages. This allows Zone 7 to meet projected water demands, even during worse-case drought conditions, as established in Zone 7 Resolutions 04-2662 and 06-2786. These wells will also provide Zone 7 more control over groundwater levels, groundwater flow, dissolved salt build-up/removal. Origin: 2003 Well Master Plan and 2011 WSE
Responsible Section	FE Facilities Engineering
Operating Impact	System reliability.
In Service Date	Month: April Year: 2020
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$8,240,000

Expansion Project Summary Report

Project	Chain of Lakes Wells 3 & 4
Project ID:	W36
Strategic Plan Priority	1.4,1.8
Project Description	This project is Phase 2 of the Well Master Plan, and consists of two new municipal water supply wells and additional connecting pipelines. The estimated project cost includes planning, land acquisition, well design and drilling, facility design and construction, pipeline additions, and miscellaneous site work.
Justification	Additional municipal water supply wells are required to maximize existing local storage in the Livermore Valley Groundwater Basin for use during droughts and facility outages. This allows Zone 7 to meet projected water demands, even during worse-case drought conditions, as established in Zone 7 Resolutions 04-2662 and 06-2786. These wells will also provide Zone 7 more control over groundwater levels, groundwater flow, and dissolved salt build-up/removal. Origin: 2003 Well Master Plan and 2011 WSE
Responsible Section	FE Facilities Engineering
Operating Impact	System reliability.
In Service Date	Month: April Year: 2020
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$16,220,000

Expansion Project Summary Report

Project	Construction of Three Dual Media Filters to Expand PPWTP	
Project ID:	PP62	
Strategic Plan Priority	1.11	
Project Description	The 8 mgd Patterson Pass Ultrafiltration Plant (UF Plant) was constructed as a temporary plant to enable Zone 7 to assess membranes for a future larger plant expansion. This project includes construction of three new dual media filters similar to the filtration system at the existing Patterson Pass conventional plant (PPWTP). The capacity provided by two of these filters will make the temporary 8 mgd capacity of the UF filtration permanent and the third filter will provide an additional mgd of filtration capacity to allow the UF clarifier to be fully utilized for its design capacity of 12 mgd. The project will also include filter backwash/washwater system expansion.	
Justification	Under normal operations, there is extra capacity available for the next few years before demand growth catches up. It would be advantageous to use this near-term window to make the temporary UF capacity permanent by adding new conventional filters. In addition to power, chemical and maintenance costs, the UF plant is costing Zone 7 approximately \$350,000 annually to replace membrane modules. As the UF plant uses proprietary membrane modules, Zone 7 is potentially vulnerable to excessive cost increases and/or obsolescence of the membrane module. The additional filtration capacity provided by the filters will also provide an additional 4 mgd of surface water treatment capacity for anticipated future demands. Origin: 2000 Treated Water Facilities Master Plan, 2009 Peer Review of the Altamont Water Treatment Plant Site and Treatment Process Study, 2011 PPWTP Expansion Feasibility Evaluation (in progress)	
Responsible Section	FE Facilities Engineering	
Operating Impact	Increased operational reliability and production capacity, extension of filter systems service life.	
In Service Date	Month: May Year: 2017	
Source of Funds	Fund 73 Connection Fees 100%	
Total Project Cost	\$9,190,000	

Expansion Project Summary Report

Project	CUWA Membership	
Project ID:	WP15	
Strategic Plan Priority	1.7	
Project Description	This expenditure is for the California Urban Water Agencies (CUWA) annual membership dues (\$60,000/year) and various Zone 7 staff members' participation in four standing CUWA committees: 1. Technical Advisory & Oversight, 2. Water Quality, 3. Water Conservation, and 4. Planning. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.	
Justification	CUWA membership dues will complement on-going Delta studies, which are intended to maintain and improve Delta water quality and reliability, even as Delta exports increase. Origin: Capital Improvement Program	
Responsible Section	FE Facilities Engineering	
Operating Impact	Increased reliability and water quality.	
In Service Date	Ongoing	
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$1,283,000	

Expansion Project Summary Report

Project	Delta Habitat Conservation and Conveyance Program	
Project ID:	WP19	
Strategic Plan Priority	1.7	
Project Description	The purpose of the Delta Habitat Conservation and Conveyance Program (DHCCP) is to develop alternatives for reliably conveying State Water Project (SWP) and Central Valley Project (CVP) water across or around the Delta in an environmentally sound manner. The information produced by the DHCCP will be incorporated into the Bay Delta Conservation Plan. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.	
Justification	The Delta Conveyance Facility is needed to restore SWP Reliability to previously anticipated levels (about 75% long-term average yield) of SWP Contract Table A amounts. Currently, Endangered Species Act (State and Federal) concerns have limited SWP diversion exports. The Delta Conveyance Facilities will reduce the conflict between Delta exports and Delta habitat values. Additionally, the Delta Conveyance Facility will improve SWP water quality to Zone 7. There will be water quality improvements in salinity (TDS), toxics, disinfection by-products, etc. Origin: Capital Improvement Program	
Responsible Section	OGM Office of the General Manager	
Operating Impact	Increased SWP reliability and improved water quality.	
In Service Date	Ongoing	
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$872,000	

Expansion Project Summary Report

Project	Delta Outreach Program	
Project ID:	WP18	
Strategic Plan Priority	1.7	
Project Description	Public outreach campaign to educate San Francisco Bay Area residents and leaders of the region's reliance on the Delta for water supply reliability and quality. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.	
Justification	Develops San Francisco Bay Area support for Delta improvements to meet the challenges of the Delta as a conveyance system to import water from the Sierra Nevada. The system is threatened by fragile levees, seismic risk, climate change and uncertain environmental regulations. Origin: Capital Improvement Program	
Responsible Section	OGM Office of the General Manager	
Operating Impact	Improved reliability.	
In Service Date	Month: June Year: 2018	
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$378,000	

Expansion Project Summary Report

Project	DWR Land Acquisition adjacent to PPWTP		
Project ID:	PP72		
Strategic Plan Priority	1.3,1.11		
Project Description	The Department of Water Resources (DWR) has available land adjacent to the PPWTP site. This project is to acquire the DWR land for locating treatment facilities.		
Justification	The Department of Water Resources (DWR) has available land adjacent to the PPWTP site. This project is to acquire the DWR land for locating treatment facilities. Origin: 2011 Facilities Engineering Staff Evaluation		
Responsible Section	FE Facilities Engineering		
Operating Impact	Increased operational and maintenance flexibility for plant improvements and expansion.		
In Service Date	Month: June Year: 2013		
Source of Funds	Fund 72	Water Rates	70%
	Fund 73	Connection Fees	30%
Total Project Cost	\$570,000		

Expansion Project Summary Report

Project	El Charro Pipeline Phase 2		
Project ID:	W42		
Strategic Plan Priority	1.1,1.4,1.8		
Project Description	This project includes planning, land/easement acquisition, design, and construction of a pipeline that loops the transmission system in the vicinity of the Chain of Lakes wells.		
Justification	Phase 2 of the El Charro Pipeline is part of the Well Master Plan (WMP). This project has a different timeline than the associated wells planned as part of the WMP because it adds additional looping to Zone 7's transmission system and improves system operation by helping to mitigate potential stagnant water issues, while reducing the frequency of flushing activities.		
	Origin: 2003 Well Master Plan		
Responsible Section	FE Facilities Engineering		
Operating Impact	System reliability.		
In Service Date	Month: April Year: 2018		
Source of Funds	Fund 73	Connection Fees	100%
Total Project Cost	\$7,580,000		

Expansion Project Summary Report

Project	Expansion Program Management (ISA interest costs)		
Project ID:	SP14		
Strategic Plan Priority	1.11		
Project Description	Ongoing program management of the Water System Expansion Program, including interest paid on the Installment Sale Agreement (ISA).		
Justification	Provides for better tracking of program management costs.		
	Origin: Capital Improvement Program		
Responsible Section	ASD Administrative Services Division		
Operating Impact	None		
In Service Date	Month: January	Year: 2014	
Source of Funds	Fund 73	Connection Fees	100%
Total Project Cost	\$1,566,000		

Expansion Project Summary Report

Project	Fixed Cost of Water Entitlement
Project ID:	WP2
Strategic Plan Priority	1.1,1.8,
Project Description	Payment of a portion of the Water System Revenue Bond, Delta Water Charge and Transportation Capital Cost Component for 27,619 acre-feet of additional State Water Project (SWP) entitlements, purchased via Amendments 20, 21, 23, and 25 to Zone 7's SWP contract. These costs are paid by Fund 51 and Fund 73 on a sliding scale. The sliding scale is determined by the percent of new connections remaining out of the total connections projected between 1999 and build-out. Cost shown here are Fund 73's cost only.
Justification	These purchases were required to meet Zone 7's long-term water supply needs, and thus allow Zone 7 to continue to meet its treated and untreated water customer demands. Expansion will pay declining amount of the fixed SWP costs associated with water acquisitions that have not been used. Origin: Amendments 19, 20, 21, 23, and 25 to Zone 7's water supply contract with DWR
Responsible Section	ASD Administrative Services Division
Operating Impact	Increased operation and maintenance.
In Service Date	Month: June Year: 2035
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$11,486,540

Expansion Project Summary Report

Project	Fourth Contractor's Share of the SBA - Sinking Fund		
Project ID:	WP14		
Strategic Plan Priority	1.1,1.8		
Project Description	Zone 7 contracted to purchase 22,000 AFA of previously-unallocated capacity in the South Bay Aqueduct under Amendments 19 and 20 to its contract with the Department of Water Resources. In addition to the schedule payment for the 22,000 AFA, Zone 7 contributes annually into this sinking fund (beginning FY 2004/05 until FY 29/30), in order to cover contractual costs from the year 2030 to 2035. The annual contributions to the sinking fund are funded by connection fees.		
Justification	This sinking fund is to cover contractual costs from the year 2030 to 2035.		
	Origin: Amendments 19, 20, 21, 23, and 25 to Zone 7's water supply contract with DWR		
Responsible Section	ASD Administrative Services Division		
Operating Impact	None.		
In Service Date	Month: June Year: 2030		
Source of Funds	Fund 73	Connection Fees	100%
Total Project Cost	\$12,734,000		

Expansion Project Summary Report

Project	Fourth Contractor's Share of the SBA (capital costs)	
Project ID:	WP7	
Strategic Plan Priority	1.2,1.8	
Project Description	Zone 7 contracted to purchase 22,000 AFA of previously-unallocated capacity in the South Bay Aqueduct under Amendments 19 and 20 to its water supply contract with DWR. This project reflects Fund 73's share of the Water System Revenue Bond and Transportation Capital Cost Component charges associated with this capacity per Amendments 19 and 20. A separate fund (Fund 51) pays for the Transportation Minimum (OMPR) Cost Component of this capacity.	
Justification	Purchase of this unallocated share of the SBA was to allow Zone 7 to meet the water supply and peaking needs of new customers.	
	Origin: Amendments 19 and 20 to Zone 7's water supply contract with DWR.	
Responsible Section	ASD Administrative Services Division	
Operating Impact	The purchases were required to meet Zone 7's long-term water supply needs, and thus allow Zone 7 to continue to meet its treated and untreated water customer demands.	
In Service Date	Month: June	Year: 2035
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$73,193,000	

Expansion Project Summary Report

Project	Groundwater Management Plan/SNMP Update		
Project ID:	GW10		
Strategic Plan Priority	1.1,1.2,1.4,1.6,1.13		
Project Description	This project updates the 2005 Zone 7 Groundwater Management Plan and its incorporated 2004 Salt Management Plan to satisfy the new requirements of the State's Recycled Water Policy. It develops plans for a salt nutrient management plan (SNMP) and constituents-of-emerging-concern (CEC) monitoring. The project also includes updating and recalibrating the Agency's numeric groundwater model, and then using it to evaluate the sustainability of the various water supply "portfolios" described in the 2011 Water System Evaluation with respect to groundwater levels and TDS concentrations. It also reviews the effectiveness of the Mocho Groundwater Demineralization Plant to mitigate the existing salt loading and assesses the options available for mitigating projected future salt loading. Public and agency outreach is a major component of this effort.		
Justification	The updating of the GMP to include nutrient management and CEC monitoring is mandated by the Water Board's new Recycled Water Policy (SWRCB Res No. 2009-0011). Also, the WSE only grossly estimated the potential groundwater impacts of the various water supply "portfolios" being considered for buildout conditions. A more in-depth analysis is needed to assess the areal groundwater sustainability, and to refine plans for future salt mitigating facilities. Origin: State Water Resources Control Board Recycled Water Policy, 2011 Water Supply Evaluation Report		
Responsible Section	GP Groundwater Protection		
Operating Impact	This project itself does not impact operations because it is a planning only project. However, its implementation will likely require operations and maintenance of additional groundwater demineralization plants and monitoring wells.		
In Service Date	Month: April Year: 2014		
Source of Funds	Fund 72	Water Rates	70%
	Fund 73	Connection Fees	30%
Total Project Cost	\$1,489,000		

Expansion Project Summary Report

Project	High-Efficiency Toilet Rebate Program	
Project ID:	PR1	
Strategic Plan Priority	1.6	
Project Description	This program encourages the replacement of existing high-water-using toilets with high-efficiency toilets (HET) that use 1.28 gallons or less per flush in residential dwelling by offering homeowners a \$75- \$125 rebate for installation of a HET. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.	
Justification	This program replaces existing high-water-using toilets with HETs. The estimated water savings from an HET is about 48 gallons/day. The toilet rebate program is a water conservation BMP that Zone 7 implements in conjunction with its retailing water agencies. Origin: Capital Improvement Program	
Responsible Section	OGM Office of the General Manager	
Operating Impact	Long-term water savings and less reliance on potable water supplies.	
In Service Date	Month: June Year: 2018	
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$554,000	

Expansion Project Summary Report

Project	High-Efficiency Washing Machine Rebate Program		
Project ID:	PR3		
Strategic Plan Priority	1.6		
Project Description	This program encourages the purchase and installation of high-efficiency clothes washers by offering water customers a \$75 water rebate. Regulations require all washers to be water and energy-efficient. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.		
Justification	Studies show that approximately 20% of a household's water is used by washing machines. High-efficiency washing machines use about 40% less water per load. This could lead to an annual water savings of approximately 5,100 gallons per machine. Origin: Capital Improvement Program		
Responsible Section	OGM Office of the General Manager		
Operating Impact	Long-term water saving and less reliance on potable water supplies.		
In Service Date	Month: July	Year: 2022	
Source of Funds	Fund 73	Connection Fees	100%
Total Project Cost	\$1,378,000		

Expansion Project Summary Report

Project	Lakes H, I and Cope Facility Planning		
Project ID:	COL13		
Strategic Plan Priority	1.6,1.1,2.2,2.4,2.7		
Project Description	This project will plan the near-term operations and facilities necessary to integrate Lakes H, I, and Cope into Zone 7's water supply system, Zone 7's regional flood protection system, and into various general plans, specific plans, on-going construction, or other activities in the Livermore-Amador Valley.		
Justification	Zone 7 already owns Lakes I and Cope, and anticipates receiving Lake H in October 2014 when Hanson's lease expires with Pleasanton Gravel Company. These lakes can be used in the near-term for water management purposes, which will allow Zone 7 to reduce evaporative losses and implement mitigative measures for salt loading in the Livermore Valley Groundwater Basin, and enhance artificial recharge and flood protection activities. These near-term activities are especially vital in light of the current crisis in the Sacramento-San Joaquin Delta. Origin: 2006 Stream Management Master Plan, 2011 Water Supply Evaluation Report		
Responsible Section	IP Integrated Planning		
Operating Impact	Enhances Zone 7's ability to manage water.		
In Service Date	Month: June Year: 2013		
Source of Funds	Fund 50	Flood Control/General Fund	22%
	Fund 72	Water Rates	15%
	Fund 73	Connection Fees	35%
	Fund 76	Flood Protection and Special Drainage Area	28%
Total Project Cost	\$310,000		

Expansion Project Summary Report

Project	New Water Treatment Plant Transmission Pipeline		
Project ID:	DS49		
Strategic Plan Priority	1.11		
Project Description	This project is a transmission pipeline from either the Altamont or Patterson Pass Water Treatment Plant (WTP) site to Zone 7's existing transmission system. The connection point is anticipated to be at the Altamont Pipeline - Livermore Reach near Vasco Road. Project timing is tied to the need to expand the WTP, which may occur sometime between 2020 and 2025 pending the ability to replace the ultra-filtration unit at the Patterson Pass WTP with a conventional unit that also provides additional capacity.		
Justification	The existing pipeline from Patterson Pass WTP does not have the capacity to handle maximum production from an expanded treatment plant or, in the case of a future Altamont WTP, there is no existing pipeline connection. Origin: 2009 Peer Review of the Altamont Water Treatment Plant Site and Treatment Process Study, 2011 PPWTP Expansion Feasibility Evaluation		
Responsible Section	FE Facilities Engineering		
Operating Impact	Provides needed water system transmission capacity and operational flexibility.		
In Service Date	Month: July Year: 2025		
Source of Funds	Fund 73	Connection Fees	100%
Total Project Cost	\$36,560,000		

Expansion Project Summary Report

Project	PPWTP Maintenance Yard and Building Improvements		
Project ID:	PP67		
Strategic Plan Priority	1.3		
Project Description	This project provides space for a maintenance yard and building that includes: 1) additional outdoor material storage and stockpile areas, 2) office building including amenities such as lunch area, showers/restrooms, locker room, and file storage, 3) storage area for equipment that needs to be stored in a climate controlled area, 4) warehouse storage and work areas for various maintenance disciplines such as electrical, SCADA/instrumentation, mechanical, general/carpentry, and mechanics, and, 5) covered areas for maintenance vehicles and various equipment.		
Justification	With increased reliance on in-house staff for facility maintenance responsibilities, Zone 7 has limited space for personnel, storage of spare parts, maintenance vehicles, maintenance gear, and files. Providing adequate space for personnel will improve work efficiency. Protecting spare parts and/or maintenance vehicles extends the useful life of facilities and allows Zone 7 to have the means readily available to deal with maintenance issues as they come Origin: ESR No. Z7-11-01, 2011 PPWTP Expansion Feasibility Evaluation (in progress)		
Responsible Section	FE Facilities Engineering		
Operating Impact	Provides operational and maintenance efficiency.		
In Service Date	Month: December	Year: 2021	
Source of Funds	Fund 72	Water Rates	70%
	Fund 73	Connection Fees	30%
Total Project Cost	\$2,070,000		

Expansion Project Summary Report

Project	Reliability Intertie
Project ID:	WP24
Strategic Plan Priority	1.5
Project Description	Zone 7 plans to investigate the feasibility of a reliability intertie with another major water agency (e.g., EBMUD). The cost estimates for this project are based on a 5.6-mile, 24-inch diameter pipeline that connects Zone 7's transmission system with another agency. The cost estimate assumes that grants and/or others fund 25% of Zone 7's share of the total project costs.
Justification	Approximately 90% of Zone 7's long-term average water supplies are conveyed to its service via the South Bay Aqueduct (SBA); moreover, access to Zone 7's non-local storage in Semitropic and Cawelo during droughts is also dependent on the SBA. Consequently, an outage of the SBA or major disruptions of the Sacramento-San Joaquin Delta (Delta) would prevent Zone 7 from access to most of its water supplies, which could potentially have catastrophic results to Zone 7's service area. According to DWR's Delta Risk Management Study Phase 1 Report, there is a 62% chance of a major earthquake in the vicinity of the Delta Region sometime between 2003 and 2032. In such an event, Zone 7 would only have access to groundwater and a portion of supplies in Lake Del Valle; these supplies may not be able to meet indoor use depending on hydrologic conditions when such an event occurs. This project will help mitigate these risks by constructing a new intertie with another major water agency that would provide additional means of acquiring water supplies during such an event. Origin: 2011 Water Supply Evaluation Report
Responsible Section	IP Integrated Planning
Operating Impact	Increases reliability. Adds additional renewal/replacement costs.
In Service Date	Month: October Year: 2021
Source of Funds	Fund 72 Water Rates 30% Fund 73 Connection Fees 70%
Total Project Cost	\$24,960,000

Expansion Project Summary Report

Project	Second Groundwater Demineralization Facility		
Project ID:	W25		
Strategic Plan Priority	1.1, 1.2 1.4, 1.6,1.12		
Project Description	Design and construction of a second groundwater demineralization facility utilizing reverse osmosis technology. The anticipated capacity for this facility is 6.2 mgd of delivered water with lower total dissolved solids (TDS) and hardness, and will remove up to an additional 3,000 tons of salt per year. The combined salt removal capacity of the first two demineralization facilities will be about 6000 tons per year. The location of this proposed facility is anticipated to be at the Zone 7 Parkside building location. Timing and location of this facility may be revised in the future depending upon the performance of the Mocho Groundwater Demineralization Plant and additional analysis and study planned as part of the Groundwater Management Plan Update, which will include an update to the Salt and Nutrient Management Plan. The cost estimate for this facility has been revised based on the cost of the Mocho Groundwater Demineralization Plant.		
Justification	This project supports both the Water Quality Management and the Salt Management Programs adopted by the Zone 7 Board of Directors. This project would improve delivered water quality to Zone 7's retailers and mitigate salt build-up in the groundwater basin by exporting the salts out of the basin via the LAVWMA pipeline. Origin: 2003 Water Quality Management Program, Salt Management Plan		
Responsible Section	FE Facilities Engineering		
Operating Impact	Increased operations and maintenance costs estimated at up to \$1.5 to \$2 million per year		
In Service Date	Month:	Year: 2028	
Source of Funds	Fund 73	Connection Fees 100%	
Total Project Cost	\$65,380,000		

Expansion Project Summary Report

Project	Semitropic Stored Water Recovery Unit		
Project ID:	WP12		
Strategic Plan Priority	1.1,1.8		
Project Description	Semitropic Water Storage District and Zone 7 have finalized the amendment to the Semitropic Banking Program agreement that will provide for additional recovery capacity. On February 18, 2004, the Zone 7 Board approved Zone 7’s participation in its proportional share (6.5%) of the Stored Water Recovery Unit (SWRU) project. Under the proposed amendment, Zone 7’s minimum recovery capacity will increase by 3,250 AFA (from 5,850 AFA to 9,100 AFA). Zone 7’s cost share of the SWRU project will be about \$1.4 million (not including interest). The total cost of the SWRU project consists of about \$10.5 million for a 120-inch pipeline from Semitropic to the California Aqueduct and about \$5.5 million for new wells and conveyance enhancements to the Semitropic water system. The \$10.5 million pipeline portion of the SWRU project will be financed by 30-year bonds (5.266% bond sale interest rate), and debt service will be passed on to Zone 7 as annual payments.		
Justification	Increase reliability by providing additional water supplies during drought years. Origin: 2004 Agreement between Zone 7 and Semitropic Water Storage District		
Responsible Section	FE Facilities Engineering		
Operating Impact	Increased operational reliability.		
In Service Date	Month:	Year:	
Source of Funds	Fund 73	Connection Fees 100%	
Total Project Cost	\$1,536,000		

Expansion Project Summary Report

Project	South Bay Aqueduct Enlargement Project - Sinking Fund		
Project ID:	SP12		
Strategic Plan Priority	1.1,1.11		
Project Description	SBA improvements by the California Department of Water Resources (DWR) that will convey for Zone 7 an additional 130 cubic feet per second (cfs) through Reach 1 and 80 cfs through Reaches 2 through 4. Improvements include an expanded South Bay Pumping Plant, third (parallel) Brushy Creek Pipeline, raised linings on open channel sections and Patterson Pass Reservoir, replacement of 54-inch pipe under I-580 with 78-inch pipe (completed March 2002), application of hydraulically smoother elastomeric polyurethane lining on the Altamont Pipeline (completed March 2002), enlarged Patterson Reservoir, and new 425 acre-foot (operational storage) raw water reservoir (Dyer Reservoir) located near Dyer Road. Note that Amendment No. 24 of Zone 7’s water supply contract with DWR allows for debt financing of the SBA Improvement & Enlargement Project by DWR. Annual repayment by Zone 7 began in 2006 and end in 2036. To ensure there is adequate funding available to repay debt after buildout occurs (2025), a sinking fund has been established. This sinking fund will fund the remainder of the debt from 2026 to 2036. The costs shown reflect the actual repayment of the debt plus interest for the enlargement component.		
Justification	This sinking fund is necessary to cover contractual costs from 2030 to 2036, during which time there will essentially be minimal on-going water connection fee revenues available because development buildout within the Valley is expected to be nearly complete by this time. Origin: 1999 Water Supply Master Plan, 2001 Water Conveyance Study		
Responsible Section	FE Facilities Engineering		
Operating Impact	None.		
In Service Date	Month:	Year: 2030	
Source of Funds	Fund 73	Connection Fees 100%	
Total Project Cost	\$30,297,000		

Expansion Project Summary Report

Project	South Bay Aqueduct Enlargement Project
Project ID:	SP5
Strategic Plan Priority	1.1,1.11
Project Description	SBA improvements by the California Department of Water Resources (DWR) that will convey for Zone 7 an additional 130 cubic feet per second (cfs) through Reach 1 and 80 cfs through Reaches 2 through 4. Improvements include an expanded South Bay Pumping Plant, third (parallel) Brushy Creek Pipeline, raised linings on open channel sections and Patterson Pass Reservoir, replacement of 54-inch pipe under I-580 with 78-inch pipe (completed March 2002), application of hydraulically smoother elastomeric polyurethane lining on the Altamont Pipeline (completed March 2002), and new 425 acre-foot (operational storage) raw water reservoir (Dyer Reservoir) located near Dyer Road. Note that Amendment No. 24 of Zone 7's water supply contract with DWR allows for debt financing of the SBA Improvement & Enlargement Project by DWR. Annual repayment by Zone 7 began in 2006 and end in 2036. To ensure there is adequate funding available to repay debt after buildout occurs (2025), a sinking fund has been established. This sinking fund will fund the remainder of the debt from 2026 to 2036. The costs shown reflect the actual repayment of the debt plus interest for the enlargement component of the project.
Justification	Provides for long-term Zone 7 raw water conveyance capacity through planned service-area build-out. Origin: 1999 Water Supply Master Plan, 2001 Water Conveyance Study
Responsible Section	FE Facilities Engineering
Operating Impact	Provides for enhanced long-term water supply, reliability and flexibility.
In Service Date	Month: June Year: 2035
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$306,771,000

Expansion Project Summary Report

Project	SWP Peaking Payment (Lost Hills & Belridge Water Districts)	
Project ID:	WP10	
Strategic Plan Priority	1.1,1.8	
Project Description	Zone 7 agreed to pay Lost Hills & Belridge Water Districts the extra SWP peaking payment when we acquired their SWP Table A amounts based on DWR billings to Kern County Water Agency (and to thus these 2 member agencies). These costs are paid by existing and future users on a sliding scale. The sliding scale is determined by the percent of new connections remaining out of the total connections projected between 1999 and build-out. Cost shown here are Fund 73's cost only.	
Justification	Reliability of water supply. Origin: Amendments 20, 21 and 25 to Zone 7's water supply contract with DWR	
Responsible Section	ASD Administrative Services Division	
Operating Impact	Extra peaking allows Zone 7 to deliver or store additional water when available in the SWP system.	
In Service Date	Month: June	Year: 2035
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$855,000	

Expansion Project Summary Report

Project	Water Conservation Best Management Practices	
Project ID:	PR2	
Strategic Plan Priority	1.6	
Project Description	This project includes the implementation of Water Conservation Best Management Practices as listed in the MOU regarding Urban Water Conservation in California, which includes financial and technical support for our retailers' conservation efforts; support and incentives to improve large landscape water efficiency; and public information and school education programs promoting water conservation. This project is split 70% Fund 52 and 30% Fund 73. The costs reflected here are Fund 73's share only.	
Justification	Reduce long-term water demands by promoting Best Management Practices that encourage wise and efficient use of water. Zone 7 studies show that per capita water use in our service area is declining, thus illustrating the effectiveness of our program. Origin: Capital Improvement Program	
Responsible Section	OGM Office of the General Manager	
Operating Impact	Decreased potable water demands and increase system reliability.	
In Service Date	Ongoing	
Source of Funds	Fund 73	Connection Fees 100%
Total Project Cost	\$600,000	

Expansion Project Summary Report

Project	Water Quality Management Program		
Project ID:	PR9		
Strategic Plan Priority	1.2,1.12		
Project Description	A comprehensive water quality management program and implementation plan (Water Quality Management Plan) was completed in April 2003. This plan addressed water quality concerns of our customers and the community. It has led to the Board adoption of policies that address specific water quality goals and objectives that meet internal (Zone 7) and customer and end user needs. This ongoing program is one component of Zone 7's overall master planning process. It helps guide both our water system operations and our CIP over the next 20 years.		
Justification	Assists the Zone 7 Board of Directors in determining policies to effectively manage treated and untreated water quality issues. Provides guidance to Zone 7's water operations, helps establish capital facilities needs and design guidelines, and incorporates a funding strategy. Origin: 2003 Water Quality Management Program		
Responsible Section	WQ Water Quality		
Operating Impact	Provides clear operational guidelines. Potential additional treatment and blending facilities to operate.		
In Service Date	Ongoing		
Source of Funds	Fund 72	Water Rates	70%
	Fund 73	Connection Fees	30%
Total Project Cost	\$1,380,000		

Expansion Project Summary Report

Project	Water Supply Replacement
Project ID:	WP16
Strategic Plan Priority	1.1,1.4,1.6,1.8
Project Description	An extensive list of potential replacement water supplies, including costs, were identified as part of the 2011 Water Supply Evaluation (2011 WSE) to replace the water supply lost due to a projected reduction in the long-term average yield of State Water Project (SWP) Table A Amounts. Pending the completion of additional analysis and studies recommended in the 2011 WSE, this project could include, but is not limited to, any combination of operational improvements, water conservation, recycled water, desalination, or water transfers.
Justification	Most of the water transfers acquired by Zone 7 since 1999 for future development were Table A water associated with the SWP. The long-term average yield of Table A water used to be 75%; however, the projected yield is now only 60% (DWR's 2009 Reliability Report) due to legal and environmental constraints in the Sacramento-San Joaquin Delta. This project will pay for the additional supply necessary to replace the lost yield associated with the reduced reliability of the SWP. Origin: 2011 Water Supply Evaluation Report
Responsible Section	IP Integrated Planning
Operating Impact	Ensures a reliable supply of high quality water.
In Service Date	Month: June Year: 2025
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$78,570,000

Expansion Project Summary Report

Project	Water System Master Plan		
Project ID:	WP20		
Strategic Plan Priority	1.1,1.4,1.6,1.8,1.1,1.11,1.13		
Project Description	The purpose of this update is to develop and recommend a roadmap of major water supply acquisitions and facility improvements necessary to meet water demands through buildout, per adopted general plans in the Livermore-Amador Valley. This “blueprint” for major water system infrastructure will incorporate all of the results of the additional studies recommended as part of the 2011 Water Supply Evaluation (2011 WSE), actual data to support the success of implementing water conservation targets established as part of the Water Conservation Act of 2009, and any revisions made to Zone 7’s reliability policy.		
Justification	In response to reduced reliability of the State Water Project, Zone 7 staff completed the 2011 WSE to help identify near- and long-term risks of water supply shortages, low-cost, zero impact actions that will minimize near-term risks of those shortage, and additional studies necessary to assist in refining yields and costs of various water supply options. Due to near-term uncertainty, the 2011 WSE did not layout the roadmap of investments necessary to meet water demands through buildout; however, a Water System Master Plan will layout this roadmap, which is required to help define priorities, funding sources, and facilitate required CEQA analysis. Origin: 2011 Water Supply Evaluation Report		
Responsible Section	IP Integrated Planning		
Operating Impact	Adds additional costs to acquire water supplies and construct infrastructure.		
In Service Date	Month: June Year: 2015		
Source of Funds	Fund 72	Water Rates	40%
	Fund 73	Connection Fees	60%
Total Project Cost	\$820,000		

Expansion Project Summary Report

Project	Water Treatment Plant Expansion (24 MGD)
Project ID:	WTP106
Strategic Plan Priority	1.11
Project Description	This project is a water treatment plant expansion of up to 12-16 million gallon per day (MGD) that will be constructed at either the Altamont site near Dyer Reservoir or the Patterson Pass WTP. Project timing is tied to the ability to replace the ultra-filtration (UF) Plant at the Patterson Pass WTP with a conventional unit. The replacement of the UF plant will provide additional capacity, delaying the need for the water treatment plant expansion by a couple of years to 2025.
Justification	Analysis completed as part of the 2011 Water System Evaluation indicates that additional water treatment plant capacity is required to meet projected maximum day demands by 2023. In addition, the UF Plant at Patterson Pass WTP is a temporary plant that was constructed to meet near-term shortages and therefore, the production from this plant eventually needs to be replaced. The potential shortage which includes replacement of the UF plant, is anticipated to be between 20 to 24 mgd. Origin: 2009 Peer Review of the Altamont Water Treatment Plant Site and Treatment Process Study, 2011 PPWTP Expansion Feasibility Evaluation (in progress), 2011 Water Supply Evaluation
Responsible Section	FE Facilities Engineering
Operating Impact	Increases production and delivery capacity and improves operational flexibility.
In Service Date	Month: June Year: 2025
Source of Funds	Fund 73 Connection Fees 100%
Total Project Cost	\$176,340,000

Expansion Project Summary Report

Project	Westside Transmission System Improvements		
Project ID:	DS52		
Strategic Plan Priority	1.11		
Project Description	This project involves making improvements to the west side of Zone 7’s transmission system to accommodate future growth. The project could involve new pipelines, replacement pipelines and/or a pump station. The costs are based on a new 9,100-foot , 30-inch diameter pipeline. Zone 7 staff will better define the actual project through hydraulic modeling planned as part of the Water System Master Plan update.		
Justification	Based on discussions with Zone 7’s operational staff, the existing transmission system can maintain pressures for existing customers on peak days. Additionally, hydraulic modeling completed by Zone 7 staff indicates the west side of the existing transmission system will not maintain pressures on peak days with additional growth in water demand. However, Zone 7 staff has just completed the 2011 Water Supply Evaluation, which recommends a series of water demand reductions, including reducing unaccounted-for water, water conservation, and potentially recycled water. The ultimate mix of future water supply sources and water demand reductions could change, or even eliminate, the potential pressure issues identified by Zone 7 staff as a result of future water demand growth on the west side of the transmission system. Consequently, this project is a holding place in case additional improvements are required to maintain pressures, with future growth, on the west side of the transmission system. Origin: 2011 Water Supply Evaluation Report		
Responsible Section	FE Facilities Engineering		
Operating Impact	Adds additional renewal/replacement costs.		
In Service Date	Month: October Year: 2017		
Source of Funds	Fund 73 Connection Fees 100%		
Total Project Cost	\$7,370,000		

Appendix D

Water System Expansion Program Financial Model Inputs and Results

6 Expansion Program Funding Outlook

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
		FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	FY 30/31	FY 31/32	FY 32/33	FY 33/34	FY 34/35	FY 35/36	FY 36/37	FY 37/38	FY 38/39	FY 39/40
BEGINNING OF YEAR FUND BALANCE																															
Cash		59,775	55,608	46,148	49,382	20,653	22,041	45,861	80,546	112,330	169,296	225,267	255,060	274,757	272,418	221,973	153,534	127,139	103,172	100,391	68,327	69,601	75,491	64,904	56,435	44,969	43,845	41,157	39,404	37,491	35,581
INSTALLMENT SALE AGREEMENT RUNNING BALANCE																															
ISA available		0	0	0	0																										
ISA being used		30,500	30,500	30,500	30,500																										
TOTAL FUNDS AVAILABLE		59,775	55,608	46,148	49,382	20,653	22,041	45,861	80,546	112,330	169,296	225,267	255,060	274,757	272,418	221,973	153,534	127,139	103,172	100,391	68,327	69,601	75,491	64,904	56,435	44,969	43,845	41,157	39,404	37,491	35,581
REVENUE (\$1000s)																															
Dougherty Valley ¹		3,364	2,170	201	208	0	8,699	5,359	3,108	3,217	3,331	3,447	3,568	2,484	1,215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Zone 7 ²		5,927	6,503	21,848	17,491	21,023	40,667	69,506	72,401	72,545	71,976	60,340	55,769	55,015	60,880	49,864	39,909	25,849	23,048	21,202	16,992	9,517	5,242	7,560	5,714	6,300	1,750	1,750	1,750	1,750	1,555
Interest Income ²		342	278	461	988	620	882	1,834	3,222	4,493	6,772	9,011	10,202	10,990	10,897	8,879	6,141	5,086	4,127	4,016	2,733	2,784	3,020	2,596	2,257	1,799	1,754	1,646	1,576	1,500	1,423
ISA Used/Paid Back ³					(30,500)																										
25% Bond Cover Credit from DWR for SBA Project		1,571	2,054	2,539	2,977	3,024	3,025	3,025	3,023	3,023	3,024	3,024	3,025	3,024	3,024	3,025	3,139	3,317	3,481	3,578	2,507	1,441	1,440	1,158	877	877	439	0	0		
Other		656	76		3,759																										
Total Revenue		11,861	11,081	25,049	-5,077	24,667	53,273	79,724	81,754	83,279	85,103	75,822	72,565	71,514	76,015	61,767	49,189	34,251	30,656	28,795	22,233	13,742	9,702	11,315	8,849	8,976	3,942	3,396	3,326	3,249	2,978
EXPENDITURES (\$1000s)																															
Discretionary Project Expenditures ⁴		2,040	3,371	2,142	3,710	3,314	8,941	23,584	27,031	5,553	8,575	24,092	30,396	49,531	97,355	100,914	50,875	34,434	11,202	35,724	4,372	1,425	13,903	13,372	13,918	3,699	302	131	222	141	125
FC Share of SBA Payments		3,100	3,000	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	0	0	0	0	0	0	0	0	0	0
Fixed Cost of Water Entitlement				652	647	648	620	570	521	475	424	369	317	269	225	178	127	91	74	55	34	24	25	26	27	28	0	0	0	0	0
SBA Enlargement Financing Payments		9,227	11,698	14,890	15,125	15,123	15,124	15,123	15,118	15,117	15,123	15,123	15,124	15,122	15,122	15,124	15,694	16,585	17,408	17,892	12,538	0	0	0	0	0	0	0	0	0	0
Unused Portion Fee/ Interest on LOC			276																												
Groundwater In-Lieu Banking Program (Cawelo)		1,296	1,296	1,296	1,293	1,294	1,295	1,294	1,293	1,297	1,299	1,299	1,298	1,303	1,302	1,300	1,302	1,306	1,303	1,304	1,307	1,309	1,309	1,311	1,312	1,310	1,311	0	0	0	0
Administration Fee ⁵				220	177	210	494	749	755	758	753	638	593	575	621	499	399	258	230	212	170	95	52	76	57	63	17	17	17	17	16
Building Lease Payment		364	399	407	415	423	432	441	449	458	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingencies ⁵			500	107	185	166	447	1,179	2,703	555	858	2,409	3,040	4,953	9,736	10,091	5,087	3,443	1,120	3,572	437	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Total Expenditures		16,027	20,540	21,815	23,652	23,278	29,453	45,039	49,970	26,313	29,132	46,030	52,867	73,853	126,460	130,206	75,584	58,217	33,437	60,859	20,958	7,853	20,289	19,784	20,314	10,100	6,630	5,148	5,239	5,158	5,140
YEAR ENDING FUND BALANCE																															
END CASH FUND BALANCE		55,608	46,148	49,382	20,653	22,041	45,861	80,546	112,330	169,296	225,267	255,060	274,757	272,418	221,973	153,534	127,139	103,172	100,391	68,327	69,601	75,491	64,904	56,435	44,969	43,845	41,157	39,404	37,491	35,581	33,420
		25,108	15,648	21,716	23,523	25,067	30,755	45,435	48,921	27,496	29,468	45,009	51,342	70,515	118,382	121,985	70,909	55,360	33,065	57,075	20,351	2,758	15,237	14,709	15,257	5,037	1,613	131	222	141	125
SINKING FUND CONTRIBUTIONS/RESERVES ⁷																															
FC Share of SBA Sinking Fund																															
FC Share of SBA Payments (2030-2036)																															
FC of SBA Running Balance		1,053	1,075	1,103	1,131	1,658	2,206	2,776	3,369	3,986	4,627	5,294	5,988	6,709	7,459	8,239	9,050	9,894	10,872	11,785	12,734	-2,100	-2,100	-2,100	-2,100	-2,100	-2,100	-2,100	-2,100	-2,100	
Net Yearly Contribution		16,038	22	28	28	527	548	570	593	617	641	667	694	721	750	780	811	844	978	913	949	10,674	8,614	6,554	4,494	2,434	384	384	384	384	384
Building Sinking Fund																															
Building Sinking Fund Running Balance		1,354	1,388	1,423	1,458	2,022	2,600	3,193	3,801	4,424	-36																				
Net Yearly Contribution		34	34	35	36	564	578	593	608	623	-4,460																				
SBA Enlargement Sinking Fund																															
SBA Enlargement Payments (2030-2036)																															
SBA Enlargement Sinking Fund Running Balance		6,399	6,528	6,694	6,864	7,938	9,055	10,216	11,424	12,680	13,986	15,345	16,758	18,227	19,755	21,344	22,997	24,716	26,504	28,363	30,297	-7,205	-7,203	-5,793	-4,386	-4,386	-1,758	435	0	0	0
Net Yearly Contribution		96	130	166	170	1,074	1,117	1,161	1,208	1,256	1,306	1,359	1,413	1,469	1,528	1,589						23,092	15,889	10,096	5,710	1,324	-434	1	1	1	1
TOTAL ANNUAL SINKING FUND CONTRIBUTIONS		146	186	229	234	2,165	2,243	2,324	2,409	2,496	-2,513	2,026	2,107	2,190	2,278	2,369	811	844	978	913	949	0	0	0	0	0	0	0	0	0	0
Sinking Fund Balance & Contributions		8,807	8,993	9,222	9,456	11,621	13,864	16,188	18,597	21,093	18,580	20,606	22,713	24,903	27,181	29,550	32,047	34,610	37,376	40,148	43,031	33,766	24,503	16,650	10,204	3,758	-50	385	385	385	385
Reserves - Deferred Revenue		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL SINKING FUND CONTRIBUTIONS PLUS RESERVES		8,807	8,993	9,222	9,456	11,621	13,864	16,188	18,597	21,093	18,580	20,606	22,713	24,903	27,181	29,550	32,047	34,610	37,376	40,148	43,031	33,766	24,503	16,650	10,204	3,758	-50	385	385	385	385
Year Ending Net Available Fund Balance (end cash fund balance minus reserves)		46,801	37,155	40,160	11,197	10,420	31,997	64,358	93,733	148,202	206,687	234,454	252,044	247,515	194,792	123,984	95,091	68,561	63,014	28,178	26,570	41,725	40,400	39,784	34,765	40,087	41,206	39,019	37,106	35,196	33,035
Cash Available		46,801	37,155	40,160	11,197	10,420	31,997	64,358	93,733	148,202	206,687	234,454	252,044	247,515	194,792	123,984	95,091	68,561	63,014	28,178	26,570	41,725	40,400	39,784	34,765	40,087	41,206	39,019	37,106	35,196	33,035
ISA Available																															
Available Fund Balance (Cash & ISA)		46,801	37,155	40,160	11,197	10,420	31,997	64,358	93,733	148,202	206,687	234,454	252,044	247,515	194,792	123,984	95,091	68,561	63,014	28,178	26,570	41,725	40,400	39,784	34,76						

10/ 19 /11 Board Written/Narrative Comments by Dick Quigley

Thursday 9/15 Toured new Delta Big Break Park and Future Discovery Center close to Antioch Bridge.

24 great iPhotos Big Break Regional Shoreline Park and future Delta Science Center in Antioch. I love the parks, and what East Bay has created over 75 years. As a Park Ambassador, I get to sometimes tell the story at various park venues. The EDUCATIONAL story board we saw and walked on gets an incomplete in my book and needs fixing! Conveyance and storage seems to have been left out. I wonder who vetoed the topographical map before it was created? Large 50'X 40' walk on map of the Delta. **63 listed parks, 27 (over 40% have large water elements), and over 10% have significant non-native imported water! by my count.**
Worth visiting as we seek a Delta Fix.

Saturday 9/17 Cal Coastal Clean Up Day Participated in the morning with a Tri-Valley High School Rotary Interact Clean up project at Lake Del Valle with about 60 kids. In the afternoon participated at the Livermore Community Center assisting the EBRPD fish tank exhibit which was a crowd pleaser. Pictures are available of both events.

Sunday-Monday 9/18 &19 Attended an ACWA Region 5 Board meeting at Central Coast RWCB office in San Luis Obispo. Agriculture, energy and conveyance intertwined with policy, and opportunity was discussed, as was JPIA insurance pool.

Thursday-Friday 9/29 & 30 Attended ACWA State Board as Katy Foulkes' (EBMUD) alternate. ACWA collective strategic plan and budget were discussed. Legislative and 2012 bond ballot measure and fall conference Nov 28-Dec 2 in Anaheim "Financing the Future."

Thursday 10/6 Participated at the Green Fair at Carr America as East Bay Regional Parks Ambassador at the park booth as a water, park and energy spokesperson. Very well attended event on a rainy day! Was glad to see Zone 7 had a booth and staff in attendance.

From my last July & August written notes: (no response yet) I would again like to suggest a step two renewable energy look at Patterson Pass Water Treatment Plant and the Altamont Treatment Plant as future opportunity areas for strategic planning. Also would like to suggest a fleet inventory review for energy efficient opportunities (e-vehicles) and new smart locator vehicle technology.

Handouts and pictures are available.

Let me know if you have any questions.

Thanks! Dick Quigley



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATION

CONTACT: Jill Duerig

AGENDA DATE: October 19, 2011

ITEM NO. 14a

SUBJECT: GENERAL MANAGER'S REPORT

SUMMARY: The following highlights a few of the key activities which occurred during September. Also attached is a list of the General Manager (GM) contracts executed during the month.

Engineering and Flood Control:

- Infrastructure construction in the El Charro Specific Plan area (Paragon Outlets) began in September. The contractor removed a portion of Zone 7's access road and an existing storm drain pipe without any Zone 7 permits. There was also a well that was constructed to provide construction water that was at odds with the issued permit. Staff are working with the developer in order to retroactively process an encroachment permit for work within Zone 7 property and with the City to assure compliance with Zone 7's requirements.
- Summer flood control maintenance continued through September. Fanfa worked on two large bank repair projects along the Chabot Canal within the Hacienda Business Park and repairing minor soil cracks and erosion slip-outs along the embankment of South San Ramon Creek in Dublin. The California Conservation Corps members finished tree limb thinning work along Tassajara Creek in Dublin; material generated has been used for bioengineered erosion protection (brush walls) along Alamo Creek. One Alameda County Crew sprayed for aquatic weeds in Livermore, while a second County crew performed vegetation management work along the fence line in the Arroyo Mocho in Pleasanton.
- On September 16th, DWR's South Bay Aqueduct work apparently caused a fire near Mines Road, which burned about 10 acres. DWR's contractor was conducting pile driving operations. The "cushions" used are made of wood and caught an ember which blew into some dry grass. A fire started and Cal Fire, the county and Livermore Fire Department responded. The county responded with six fire trucks and a dozer to create a fire break around the perimeter. The fire was quickly controlled and abated.

Finance & Administration

- Staff responded to three PG&E Peak Day Pricing (PDP) events on September 6th, 7th and 20th, shutting down the Patterson Pass Ultra-Filtration Plant as well as the inlet booster pump and solids recycling facilities at Del Valle Water Treatment Plant for the duration. Nine events have been called so far this summer season.

- In preparation for the four to six month Patterson Pass Water Treatment Plant (PPWTP) shutdown to replace the conventional plant clarifier mechanism, staff are coordinating with KNE to demobilize centrifuge operations. Demobilization at PPWTP saves Zone 7 the cost of paying for standby centrifuge rental equipment. Staff will meet with KNE to negotiate the following items: 1) demobilize KNE operations at PPWTP from October to April; 2) remobilize KNE in April-May 2012; and 3) extend centrifuge rental services beyond the contract end date of December 2012. Items 2 and 3 will be subject to a change order for additional cost to remobilize and for time extension to contract. Overall savings to demobilize then remobilize centrifuge rental equipment at PPWTP could be almost \$50,000.
- As a requirement of the Proposition 50 grant funding received, staff mailed 500 survey cards to mail out to residents in Zone 7's service area regarding their experience with the rebate process for High-Efficient Washing-machines (HEW). Another 500 HEW surveys will be sent out in January 2012, along with 200 surveys regarding rebates for High-Efficiency Toilets (HETs).

Operations and Maintenance:

- As the algal taste and odor season winds down, continued failures of the Powdered Activated Carbon (PAC) delivery system have kept maintenance busy trying to keep this interim chemical feed system functional. Meanwhile, taste and odor complaints continue to trickle in (one each from DSRSD and Pleasanton during this period).
- During September, staff began preparing for two scheduled shutdowns of the South Bay Aqueduct, November 15th through January 9th (eight weeks during which DWR will complete canal modifications) and January 10th through 30th (three weeks during which Dyer reservoir will be filled and the new South Livermore meter vault will be constructed).
- Interim repairs to Cope Lake will be done using in-house labor. The preliminary work includes installing some mesh fencing (to exclude frogs from the work area) and then, after waiting a week and receiving approvals from a biologist to proceed, trenching and digging a retention pond. Once all the preliminary work is completed, remediation of the bank erosion on the southeast corner can proceed.

Environmental & External Affairs:

- On September 20th, Federal Judge Oliver Wanger issued a decision in the consolidated salmon case. Remanding the case to the National Marine Fisheries Service (NMFS), the critical findings state, "Some of NMFS's analyses rely upon equivocal or bad science to impose RPA [Reasonable and Prudent Alternative] Actions without clearly explaining or otherwise demonstrating why the specific measures imposed are essential to avoid jeopardy and/or adverse modification [to salmonids]. Given the potential serious impacts of these measures, the agency must do more to comply with the law. The 2009 Salmonid BiOp [biological opinion] and its RPA are ARBITRARY, CAPRICIOUS, and UNLAWFUL, and are REMANDED to NMFS for further consideration in accordance with this decision and the requirements of law." On September 30th, Judge Wanger retired from the bench.
- The California Department of Water Resources (DWR) released a report on water quality conditions that can limit growth of the two invasive mussel species, quagga and zebra. Based on calcium concentrations, Bethany Reservoir and the South Bay Aqueduct were both included in locations classified as "potentially able to support" growth of these mussels.

Monthly List of GM Contracts

September 2011

Contracts:

Kaizen InfoSource	\$10,000	Records Retention/Management Consultant
Urban Futures Incorporated	\$50,000	Financial Management Counseling/Assistance In Financial and Payroll Software Selections
Blaine Tech Services, Inc.	\$20,000	Groundwater Sampling
Environmental Science Associates	\$13,581	Support for Neg Dec for CEQ APPWTP Pipeline
IEDA	\$30,000	Labor Relations Services and License to the Salary Comp & Benefit Survey System
Total September 2011	\$123,581	



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: Office of the General Manager - Communications & Public Affairs
CONTACT: Boni Brewer / Mike Wallace

AGENDA DATE: October 19, 2011

ITEM NO. 14b

SUBJECT: Recent & Upcoming Public Outreach Activities

Recent Public Outreach Activities

Valley Children's Museum Promotion, September 15

Zone 7 staff partnered with DSRSD staff in providing fun and informative water-related activities for children at Emerald Glen Park, the site of the new Dublin Farmer's Market, to help promote the Valley Children's Museum's (VCM) "Moving Mission" mobile unit.

California Coastal Cleanup, September 17

Zone 7 staff assisted the City of Pleasanton and the City of Dublin with this annual event in which volunteers pick up trash and other debris along local creeks as part of the statewide California Coastal Cleanup Day. In addition to issuing encroachment permits for activities within Zone 7-owned stretches of creek, one of our roles is to promote the creek cleanups and publicize results. In addition to preventing pollution in streams that drain to the Bay and coast, the annual cleanup at the end of summer helps make sure that local waterways are ready to handle flows for the upcoming season's storms.

Home & Garden Show, September 30 – October 2

Zone 7 staff shared an informational booth at this annual event, held at the Alameda County Fairgrounds in Pleasanton, with the Alameda County Flood Control and Water Conservation District's Clean Water Program. The focus was on stormwater pollution prevention to keep our creeks and Bay clean and healthy. Zone 7 staff, which had one-on-one contact with a couple hundred people in attendance, also provided water conservation tips.

Pleasanton Green Scene, October 6

Zone 7 staff shared a booth with the City of Pleasanton at this event, designed to promote green and healthy living to Hacienda Business Park's 17,000-plus employees and residents, and to the public at-large. We distributed information on such things as water conservation and stormwater-pollution prevention. The fair was held at the CarrAmerica Conference Center in Pleasanton.

Upcoming Public Outreach Activities

Valley Children's Museum Promotion, October 20

This will be the final event in 2011 that Zone 7 staff partners with DSRSD to help to promote the Valley Children's Museum's (VCM) "Moving Mission" mobile unit during Dublin's Farmer's Market at Emerald Glen Park. On the third Thursday of each month between May and October, we have been incorporating some fun activities relating to the role of water in our region's history, while also making the activity relevant to key issues today – including water conservation. The event runs from 4 to 8 p.m.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

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ORIGINATING SECTION: Office of the General Manager - Communications & Public Affairs

CONTACT: Mike Wallace/Tim Hunt

AGENDA DATE: October 19, 2011

ITEM NO. 14c

SUBJECT: Legislative Update

SUMMARY:

- Zone 7 staff, with the support of the agency's lobbying firm, The Gualco Group, Inc., and the agency's legislative support consultant, Tim Hunt, monitors legislation that is being considered in Sacramento. Staff, with recommendations of the agency's lobbying firm, determines a number of bills of interest to Zone 7 for the legislative session, such as those related to the Delta. Bills being monitored are summarized in the attached Executive Summary.
- The Legislature adjourned September 9th, giving Governor Brown 30 days to act upon the more than 600 bills that were passed. Governor Brown signed a package of seven bills designed to ensure that Californians have access to clean and safe water. In his signing message, he wrote, "Clean drinking water is a basic human right." The package included: AB 54 (Solorio) drinking water; AB 938 (M. Pérez) public water systems; AB 983 (Perea) Safe Drinking Water Revolving Fund; AB 1194 (Block) drinking water; AB 1221 (Alejo) State Water Quality Control Fund: State Water Pollution Cleanup and Abatement Account; AB 1292 (Hernández) Safe Drinking Water State Revolving Fund: revenue bonds; SB 244 (Wolk) local government: land use: general plan: disadvantaged unincorporated communities.
- The governor signed two water-related bills that Zone 7 actively supported:
 - **SB 224** (Pavley) gives the Department of Water Resources significantly more flexibility in executing contracts, which is designed to help make State Water Project operations more efficient.
 - **SB 215** (Huff) will continue the inspection program for Quagga mussels that was scheduled to sunset this year.
- **SB 293** (Padilla) was signed by the governor. It limits retention on public contracts to 5 percent, reduced from Zone 7's current practice of 10 percent. Zone 7 opposed this bill.
- **SB 202** (Hancock) was signed by the governor and will only allow initiatives to appear on general election ballots, a change from the practice since the governor was secretary of state in the 1970s. The governor's signing message cited the significantly larger turnouts for general elections as a key reason for signing the bill.
- **SB 618** (Wolk) was signed and contained a provision that could be helpful in the Bay Delta Conservation Plan (BDCP) process as it relates to the taking of covered species in a habitat covered by a Natural Community Conservation Plan (such as the BDCP).
- **SB 834** (Wolk) was vetoed. It would have required Integrated Regional Water Management plans to include provisions for reducing dependence on Delta-delivered water.

RECOMMENDED ACTION: Information only.

ATTACHMENT: Executive Summary



EXECUTIVE SUMMARY State Legislation

Prepared for the Zone 7 Water Agency, Eastern Alameda County, Board of Directors
by The Gualco Group, Inc.

October 10, 2011



BILL	TOPIC	SYNOPSIS	STAFF'S RECOMMENDED POSITION	STATUS OF THE BILL/COMMENTS
Delta Stewardship Council				
AB 576 (Dickinson)	Fees	AB 576 would have required the Delta Stewardship Council to develop a long-term plan to pay for the costs of implementing the Delta Plan.	Watch	"DEAD" for 2011
Groundwater				
AB 359 (Huffman)	Groundwater Management Plans	AB 359 requires a local agency that develops a groundwater management plan and drafts a resolution to adopt a plan to provide DWR and interested parties with various notices concerning plan preparation, meeting announcements, and availability of draft plans, maps and other relevant documents; Requires, commencing January 1, 2013, that a groundwater management plan include a map identifying recharge area; Requires, that the map of recharge area be provided to local planning agencies; Allows a local agency to request state funds to map groundwater recharge areas if eligible funding is available.	Watch	October 8: Chaptered by the Secretary of State, Chapter Number 572, Statutes of 2011
AB 1152 (Chesbro)	Groundwater	This bill would allow DWR to authorize a local agency that has been collecting and reporting groundwater elevations and that does not have a groundwater management plan, to report same on an interim basis until the local agency adopts a groundwater management plan or until January 1, 2014, whichever occurs first.	Watch	September 7: Chaptered by the Secretary of State, Chapter Number 280, Statutes of 2011
Peripheral Canal				
AB 550 (Huber)	Peripheral Canal	The bill would have prohibited the construction of a peripheral canal, as defined, unless expressly authorized by the Legislature.	OPPOSE.	"DEAD" for 2011
AB 627 (B. Berryhill)	"Delta Corridors Plan"	AB 627 would have directed the Department of Water Resources to expedite their evaluation of the feasibility for a through-Delta conveyance plan known as the "Delta Corridors Plan".	OPPOSE.	"DEAD".
SB 200 (Wolk)	Delta Conveyance Facility	SB 200 would have added numerous new conditions that each state agency must meet before it can take or authorize any action to implement a conservation measure with the Bay Delta Conservation Plan	OPPOSE.	"DEAD" for 2011

BILL	TOPIC	SYNOPSIS	STAFF'S RECOMMENDED POSITION	STATUS OF THE BILL/COMMENTS
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Public Employment

AB 325 (Lowenthal, B.)	Employee's right to bereavement leave	AB 325 would have prohibited an employer from refusing to grant a request by any employee to take up to 3 days of bereavement leave or to interfere with or restrain an employee from doing so.	Watch	October 9: Vetoed
AB 1155 (Alejo)	Workers' compensation	This bill would have added prohibitions concerning the use of risk factors and specified characteristics to deny an injured worker his or her benefit when disabled in the workplace.	Watch	October 7: Vetoed
AB 1184 (Gatto)	Public employees' retirement benefits	AB 1184 would have stated that a PERS agency not experience a significant increase in actuarial liability due to increased compensation paid by another contracting agency to a nonrepresented employee.	Watch	September 9: Ordered to inactive file at the request of Assembly Member Ma
AB 1320 (Allen)	Public employees' retirement: employer contribution rates	AB 1320 would have established for each PERS employer a Rate Stabilization Account in the Employer Rate Stabilization Fund.	Watch	September 9: Ordered to inactive file at the request of Assembly Member Allen
AB 1344 (Feuer)	Local governance	This bill sets forth requirements regarding a city charter or charter amendment.	Watch	October 9: Chaptered by the Secretary of State, Chapter Number 692, Statutes of 2011
SB 931 (Evans)	Payroll Cards	SB 931 authorizes an employer to pay an employee's wages by means of a payroll card, as defined, provided that specified requirements are satisfied. In addition, the bill makes any violation of its provisions a misdemeanor and would subject a violator to specified civil penalties. employee rights related to employer-employee relations.	OPPOSE	October 9: Vetoed

Water Conservation, Supply & Delivery

AB 275 (Solorio)	Rainwater Capture Act of 2011	This bill would have authorized residential, commercial, and governmental landowners to install, maintain, and operate rain barrel systems and rainwater capture systems for specified purposes, provided that the systems comply with specified requirements and would have require notification to the operator of a public water system in certain circumstances.	Watch	October 9: Vetoed
AB 779 (Fletcher)	Municipal water districts: oversight	This bill would have authorized a municipal water district to establish an independent oversight committee to assist in tracking and reviewing revenues of the district.	Watch	"DEAD" for 2011
SB 215 (Huff)	Mussels	SB 215 extends the existing repeal date from January 1, 2012 to January 1, 2017 of provisions which exempt suppliers from civil or criminal liability IF the supplier is in full compliance with a plan to control and eradicate Quagga Mussels.	SUPPORT	September 26: Chaptered by Secretary of State, Chapter 332, Statutes of 2011
SB 224 (Pavley)	Public Contracts: DWR	SB 224 exempts the following contracts from the review of approval by the Department of General Services: "Any contract of a type specifically mentioned and authorized to be entered into by the Department of Water Resources under the Water Code" "Any contract entered into by the Department of Water Resources that is not funded by money derived from state tax sources, but rather, is funded by money derived from federal and local sources"	SUPPORT	October 8: Chaptered by the Secretary of State, Chapter Number 587, Statutes of 2011
SB 263 (Pavley)	Wells: reports: public availability	This bill would have removed certain confidentiality requirements regarding well logs. and would have provide that knowingly violating this prohibition would be a misdemeanor.	Watch	October 8: Vetoed

BILL	TOPIC	SYNOPSIS	STAFF'S RECOMMENDED POSITION	STATUS OF THE BILL/COMMENTS
SB 571 (Wolk)	Master Plan for Financing/Developing Water Resources	SB 571 would have established the California Water Commission as an independent agency, revised the requirements of the California Water Plan, and created a new division in the Water Code titled " Water Resources Investment Planning".	Watch	"DEAD" for 2011
SB 710 (La Malfa)	Project: County Services State Water Project	This bill would have authorized a county to prepare and adopt a county services impact report containing, among other things, a description of the costs of county services, related to the operation of specified dams and reservoirs as State Water Project facilities within the county.	Watch	"DEAD" for 2011
SB 834 (Wolk)	IRWM Plans	This bill would have required an integrated regional water management plan to identify the manner in which the plan reduces reliance on the Sacramento-San Joaquin Delta for water supply and improving regional self-reliance for water, if the region depends on water from the Delta watershed.	Watch	October 2: Vetoed

California Regional Water Quality Control Boards

SB 607 (Walters)	Water Quality: Brackish Groundwater Treatment	SB 607 requires the State Water Resources Control Board ("SWRCB"), on or before January 1, 2012, to either amend the California Ocean Plan, or adopt separate standards, to address water quality objectives and effluent limitations that are specifically appropriate for brackish groundwater treatment system facilities that produce municipal water supplies for local use.	Watch	September 6: Chaptered by the Secretary of State, Chapter Number 241, Statutes of 2011
SB 900 (Steinberg)	Regional Water Quality Control Boards	SB 900 would have provided that a person would not be disqualified from being a member of that board because that person receives, or has received during the previous two years, a significant portion of his/her income directly or indirectly from a person subject to waste discharge requirements, or an applicant for waste discharge requirements.	Watch	July 1: Ordered to inactive file on request of Assembly Member Charles Calderon

Special Districts

AB 54 (Solorio)	Drinking water	This bill specifies that any corporation organized for or engaged in the business of selling, distributing, supplying, or delivering water for irrigation or domestic use that provides in its articles or bylaws that the water shall be sold, distributed, supplied, or delivered only to owners of its shares and that those shares are appurtenant to certain lands shall be known as a mutual water company.	Watch	October 7: Chaptered by the Secretary of State, Chapter 512, Statutes of 2011
AB 59 (Swanson)	Family and medical leave	This bill would have increased the circumstances under which an employee is entitled to protected leave pursuant to the Family Rights Act by (1) eliminating the age and dependency elements from the definition of "child," thereby permitting an employee to take protected leave to care for his or her independent adult child suffering from a serious health condition, (2) expanding the definition of "parent" to include an employee's parent-in-law, and (3) permitting an employee to also take leave to care for a seriously ill grandparent, sibling, grandchild, or domestic partner, as defined.	Watch	"DEAD" for 2011
ACA 4 (Blumenfield)	Local government financing: voter approval	This measure would have lowered to 55% the voter-approval threshold for a city, county, or city and county to incur bonded indebtedness.	Watch	August 29: Ordered to inactive file at the request of Assembly Member Blumenfield
SB 31 (Correa)	Local government: lobbyist registration	SB 31 would have enacted a comprehensive scheme to regulate lobbying entities, including requirements to register and make periodic reports regarding certain lobbying activities; would require each local government agency to create a commission to implement and enforce the provisions of the bill.	Watch	"DEAD" for 2011

BILL	TOPIC	SYNOPSIS	STAFF'S RECOMMENDED POSITION	STATUS OF THE BILL/COMMENTS
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Sacramento Regional County Sanitation District

AB 134 (Dickinson et al.)	Appropriation of water	AB 134 authorizes the Sacramento Regional County Sanitation District to file an application with the State Water Resources Control Board for a permit to appropriate "an amount of water up to the amount of treated wastewater that is discharged into the Sacramento River in order to facilitate sale and transfer beyond SRCSD's service area. The bill authorizes, but does not require, the board to grant the permit "subject to the terms and conditions as in the board's judgment are necessary for the protection of the rights of any legal user of the water".	Neutral	September 6: Chaptered by the Secretary of State, Chapter Number 212, Statutes of 2011
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SB 52 (Steinberg)	Sacramento Regional County Sanitation District	SB 52 would have appropriated \$50 million dollars of financial assistance to the SRCSD to offset a portion of the costs of capital improvements at the wastewater treatment plant to meet the requirements of its discharge permit.	Watch	"DEAD" for 2011
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Financing

AB 157 (Jeffries)	Water Bond	This bill would have reduced the water bond by 25% the total amount pursuant to the Safe, Clean, and Reliable Drinking Water Supply Act of 2012, and would make conforming reductions to amounts specified to be allocated from these bond funds for certain purposes.	Watch	"DEAD" for 2011
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AB 983 (Perea)	Safe Drinking Water State Revolving Fund	This bill would authorizes the DPH to take specified actions to improve access to financial assistance for small community water systems and not-for-profit nontransient noncommunity water systems serving severely disadvantaged communities, as defined.	Watch	October 7: Chaptered by the Secretary of State - Chapter 515, Statutes of 2011
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AB 1292 (Hernandez, Roger)	Safe Drinking Water State Revolving Fund: revenue bonds	This bill provides that, where a state agency is authorized under state law to request that the bank issue bonds on its behalf, the agency may request, and the bank may issue, the bonds for the purpose authorized by state law and to fund any necessary reserves, capitalized interest, and costs of issuance associated with the bonds.	Watch	October 7: Chaptered by the Secretary of State - Chapter 518, Statutes of 2011
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SB 34 (Simitian)	California Water Resources Investment Act of 2011	SB 34 would have established a sustainable revenue source to fund the public benefits of water related projects and programs by levying a charge on all retail water suppliers.	Watch	"DEAD" for 2011
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SB 293 (Padilla)	Payment bonds: laborers.	Existing law requires that, for private and public works of improvement, and in a public works contract, a prime contractor or subcontractor pay to any subcontractor, not later than 10 days after receipt of each progress payment, unless otherwise agreed to in writing, the respective amount allowed the contractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest therein, as prescribed. This bill, instead, requires that those amounts be paid not later than 7 days after receipt of each progress payment.	"OPPOSE UNLESS AMENDED"	October 9: Chaptered by the Secretary of State, Chapter Number 700, Statutes of 2011
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BILL	TOPIC	SYNOPSIS	STAFF'S RECOMMENDED POSITION	STATUS OF THE BILL/COMMENTS
SB 475 (Wright et al.)	Infrastructure Financing	AB 475 would have established statutory authorization for local governmental agencies to utilize private sector financing alone or in concert with public financing, to study, plan, design, construct, develop, finance, maintain, rebuild, improve, repair, or operate, or any combination thereof, fee-producing infrastructure facilities.	Watch	"DEAD" for 2011
SB 907 (Evans et al.)	Infrastructure Financing	This bill would have created an 11-member Master Plan for Infrastructure Financing and Development Commission to develop a long-term plan and strategy for the state's infrastructure needs and a prioritized plan to meet those needs.	Watch	"DEAD" for 2011
Energy				
AB 512 (Gordon)	Local government renewable energy self-generation program	This bill expands the definition of an eligible renewable generating facility for the purposes of the program to include a facility that has a generating capacity of no more than 5 megawatts. The bill prohibits an electrical corporation from being required to compensate a local government for electricity generated from a facility in excess of the bill credits applied to the designated benefiting account. The bill prohibits a local government from being eligible for any other tariff or program that requires an electrical corporation to purchase generation from an eligible renewable generating facility participating in the program. The bill exempts an electrical corporation with 60,000 or fewer customer accounts from the program.	Watch	October 6: Chaptered by the Secretary of State - Chapter 478, Statutes of 2011

BILL	TOPIC	SYNOPSIS	STAFF'S RECOMMENDED POSITION	STATUS OF THE BILL/COMMENTS
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Hazardous Materials

AB 291 (Wieckowski)	Underground storage tanks: petroleum: charges	This bill extends the requirement to pay the increased amount of \$0.006 per gallon until January 1, 2014 where the revenue resulting from the increased fee would be required to be deposited in the fund and be available, upon appropriation, for expenditure for the purposes authorized under existing law for money in the fund. This bill would constitute a change in state statute that would result in a taxpayer paying a higher tax within the meaning of Section 3 of Article XIII A of the California Constitution, and thus would require for passage the approval of 2/3 of the membership of each house of the Legislature.	Watch	October 8: Chaptered by the Secretary of State, Chapter Number 569, Statutes of 2011
AB 358 (Smyth)	Hazardous substances: underground storage tanks: releases: reports	AB 358 requires a tank owner or operator to transmit certain information regarding an unauthorized release to the local agency on a written form or using an electronic format developed by the board and approved by the Secretary for Environmental Protection. The bill also requires each regional board and local agency to submit a report for all unauthorized releases using the board's Internet-accessible database. The bill requires the board to annually update its Internet Web site with the information in those reports concerning unauthorized releases.	Watch	October 8: Chaptered by the Secretary of State, Chapter Number 571, Statutes of 2011
AB 408 (Wieckowski)	Hazardous substances and materials: hazardous waste transportation	This bill provides that expenses are a charge against the person whose negligence caused the incident if the incident necessitated an evacuation from a building, structure, property, or public right-of-way where the incident originates, or the incident results in the spread of hazardous substances or fire beyond the building, structure, property, or public right-of-way where the incident originates.	Watch	October 8: Chaptered by the Secretary of State, Chapter Number 603, Statutes of 2011
AB 681 (Wieckowski)	Aboveground storage tanks: funds	This bill makes makes the Environmental Protection Trust Fund and the associated training account operative until July 1, 2013, and repeals the fund and the account on January 1, 2014.	Watch	October 8: Chaptered by the Secretary of State, Chapter Number 574, Statutes of 2011

Natural Resources/Environment

AB 591 (Wieckowski)	Oil and gas production: hydraulic fracturing	This bill would have defined "hydraulic fracturing" and required a person carrying out hydraulic fracturing to provide to the owner or operator a list of the chemical constituents used.	Watch	August 26; Dead for 2011
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Water

AB 1194 (Block)	Drinking water	The Calderon-Sher Safe Drinking Water Act of 1996 requires the State Department of Public Health to adopt regulations for contaminants in drinking water. The act authorizes the department to enter into primacy delegation agreements with local health officers for enforcement of these provisions. The act defines various terms, including human consumption, which means the use of water for drinking, bathing or showering, hand washing, or oral hygiene. This bill would include cooking, including, but not limited to, preparing food and washing dishes, in the definition of human consumption.	Watch	October 7: Chaptered by the Secretary of State - Chapter 516, Statutes of 2011
AB 849 (Gatto)	Water: use efficiency: graywater building standards	This bill repeals the authority of a city, county, or other local agency to adopt building standards that prohibit the use of graywater and instead authorizes the adoption of standards that are more restrictive than that adopted pursuant to state requirements. The bill requires that an ordinance enacted pursuant to this authority include the local climatic, geological, topographical, or public health conditions requiring different building standards. The bill also requires a city, county, or other local agency to seek consultation with the local public health department prior to commencing the issuance of permits for indoor graywater systems, as specified.	Watch	October 8: Chaptered by the Secretary of State, Chapter Number 577, Statutes of 2011



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATION

CONTACT: Mike Wallace /John Yue/Tom Hughes

AGENDA DATE: October 19, 2011

ITEM NO. 14d

SUBJECT: STATUS REPORT ON SEPARATION EFFORTS

SUMMARY:

Business Administration:

- Zone 7's new payroll provider, ADP, has completed on-line client interview, training enrollment, client analysis, and benefit accrual analysis. The local server for collection of eTime data is installed and software loaded. Payroll information has been transmitted to ADP by the County to facilitate the set-up of employee records by ADP. Staff is participating in training for ADP Payroll and Time & Labor. A checking account in support of the ADP payroll process is being set up.
- Staff attended an ACERA Participating Employers' meeting on September 2, 2011. ACERA staff and its actuarial consultant presented updates on the performance of the pension fund (15.6% for the period April 2010-March 2011), and recommendations to update the actuarial assumptions used in valuation studies (recommendation impact of 0.01%). Legislative updates were also presented on SB1479 and AB340 which may have impacts for financial tracking requirements.
- Zone 7 staff continue to analyze potential vendors for providing new financial software. Staff visited two local public agencies on September 20, 2011, as part of the review process for this selection. Staff received and are reviewing seven responses to the reference check questionnaire. Staff are also reviewing proposed contract terms with each of the vendors.

Employee Services:

- Signed copies of the Transition Agreement were received from Local 21 representatives on August 26, 2011; as of the end of September, the Transition Agreement is still awaiting ratification by membership.
- Staff prepared an updated work plan related to the transition.
- Staff met with the County Employee Benefits Center on October 6, 2011 to discuss benefits-related transition details.
- Staff is participating in ADP training for the "Expanded HR" features that are to be provided as part of the new payroll software services.



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ORIGINATING DIVISION: Financial and Systems Services

CONTACT PERSON: JaVia Green

AGENDA DATE: October 19, 2011

ITEM NO. 14e

SUBJECT: Quarterly Update of Expansion Fund

SUMMARY:

- A \$60 million (M) Installment Sale Agreement (ISA) was established with Wells Fargo Bank in January 2008, to fill a funding shortfall for the Altamont Water Treatment Plant and Pipeline Project. A portion of the project, the Altamont Pipeline - Livermore Reach, has been constructed. On February 17, 2010, Zone 7 drew \$30.5M from the ISA and payback is required by January 1, 2014.
- Projected sources and uses of funds and year-end available funding through Fiscal Year 13/14 is as follows:

Fiscal Year	Projected Equivalent Connections	Projected Revenue ¹	ISA Draw/Payback	Projected Expenses	Projected End of Year Available Funding ²
9/10	504	\$20,714,550 ³	\$30,500,000	\$21,312,244	\$51,111,903
10/11	435	\$11,860,555		\$16,172,443 ⁴	\$46,800,014
11/12	392	\$11,081,886		\$20,726,561	\$37,155,339
12/13	450 ⁶	\$10,855,975		\$15,850,963 ⁵	\$32,160,351
13/14	650 ⁶	\$16,242,019	-\$30,503,481	\$14,743,026 ⁵	\$3,155,862

- Projected Revenue includes connection fee revenue and other revenue such as interest income and refunds from the Department of Water Resources.
- Represents the sum of net available funds from cash and ISA after expenses, excluding designated reserves.
- Revenue of \$20.7M includes a one-time year-end adjustment to recognize \$7.7M previously booked as deferred revenue from prepaid connection credits (Shea-Lin Water Transfer Assistance Agreement, 2000).
- FY 10/11 expenses and revenue are based on unaudited actuals.
- Projected expenses are based on the FY 10/11 Ten-Year CIP; the next update will be based on the proposed FY 12/13 Ten-Year CIP, which will be presented to the Board on October 19, 2011 for adoption.
- Projected equivalent connections for fiscal years 12/13 and 13/14 have been revised downward from previous projections.

- Based on these revenue and expenditure projections, staff anticipates sufficient funding to pay off the ISA by January 1, 2014.

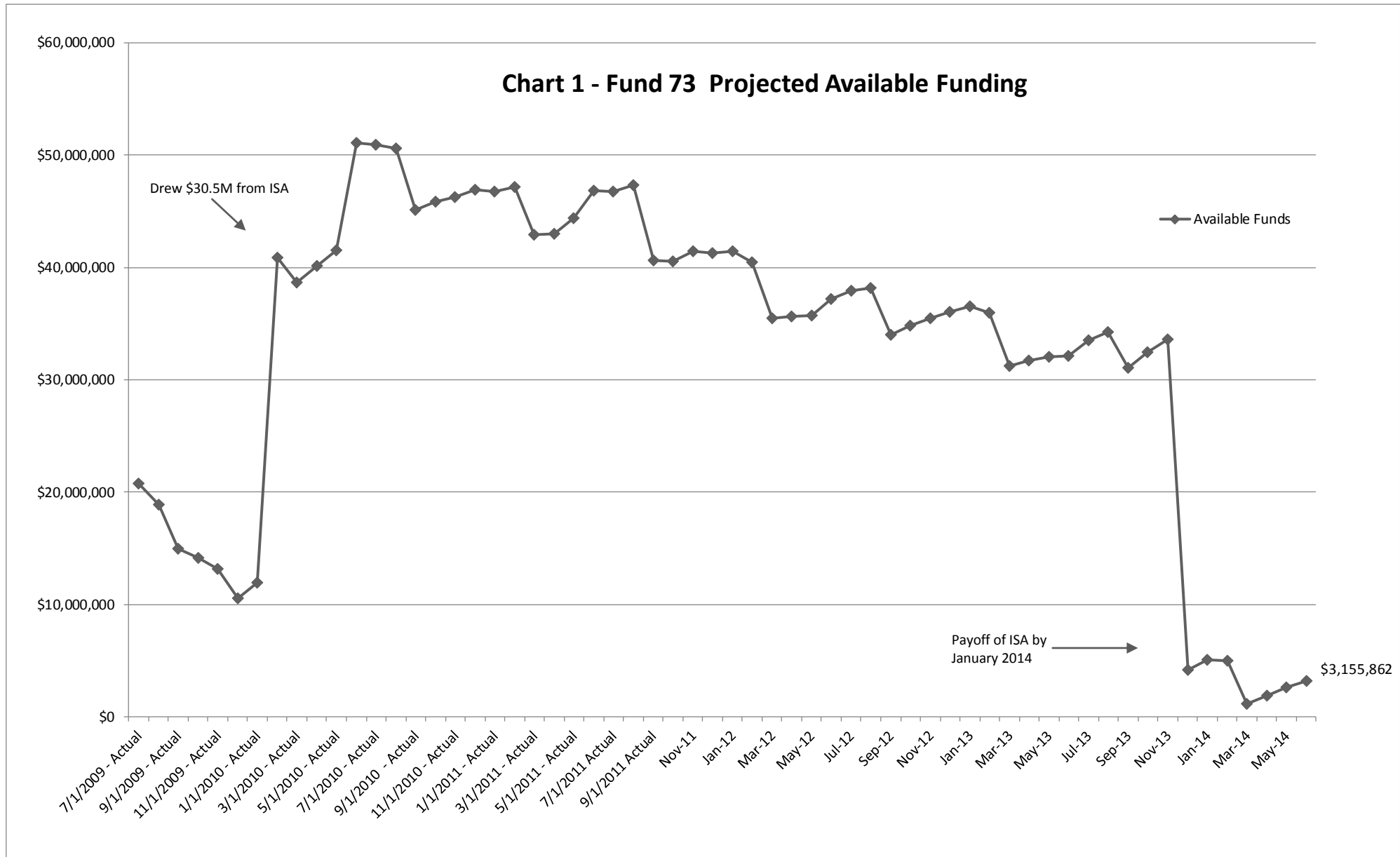
RECOMMENDED ACTION:

Information only.

ATTACHMENT:

Chart 1 – Fund 73 Projected Available Funding
Fund 73 Five-year Cash Flow Tables

Chart 1 - Fund 73 Projected Available Funding



Fund 73 Cash Flow Tables

	09/10												
	7/1/2009 - Actual	8/1/2009 - Actual	9/1/2009 - Actual	10/1/2009 - Actual	11/1/2009 - Actual	12/1/2009 - Actual	1/1/2010 - Actual	2/1/2010 - Actual	3/1/2010 - Actual	4/1/2010 - Actual	5/1/2010 - Actual	6/1/2010 - Actual	Sum of Key Data
Beginning Fund Balance - Projected	21,209,597	20,777,047	18,880,767	14,965,466	14,148,967	13,166,578	10,518,296	11,909,351	40,893,026	38,682,173	40,146,851	41,536,315	
Source of Funds - Projected													-
Z7 Connection Fee Revenue	449,188	405,356	416,023	193,975	384,021	62,837	277,348	416,023	754,011	1,130,729	900,542	1,654,416	7,044,467
DV Connection Fee Revenue		239,400	-	458,850	179,550	52,800	785,100	319,200	79,800	518,700	738,150	957,600	4,329,150
Interest Revenue/Prepaid Connections/Other ISA			447,604	191,538	-	-	-	71,916	31,244	735,854	11,866	7,850,911	9,340,933
								30,500,000					30,500,000
Total Sources of Funds	449,188	644,756	863,626	844,363	563,571	115,637	1,062,448	31,307,139	865,055	2,385,283	1,650,557	10,462,927	51,214,550
Available Funds - Projected	21,658,784	21,421,804	19,744,394	15,809,829	14,712,538	13,282,214	11,580,744	43,216,489	41,758,081	41,067,456	41,797,409	51,999,242	
Projected Expenditures	881,737	2,541,036	4,778,928	1,660,863	1,545,960	2,763,918	(328,607)	2,323,464	3,075,908	920,605	261,094	780,607	21,205,512
Sinking Fund Contribution												106,731	106,731
Net Available Funds and ISA - Projected	20,777,047	18,880,767	14,965,466	14,148,967	13,166,578	10,518,296	11,909,351	40,893,026	38,682,173	40,146,851	41,536,315	51,111,903	
Designated Reserves												8,663,036	
Fund Balance and ISA												59,774,939	

FY 09/10 Key Data:

Projected Connection Fee Revenue: \$ 5,691,050

Actually Received \$ 11,373,617

% of Actual to Projected 200%

Projected Expenditures \$ 25,632,046

Actually Spent/Encumbered \$ 21,205,512

% of Actual to Projected 83%

	10/11												
	7/1/2010 - Actual	8/1/2010 - Actual	9/1/2010 - Actual	10/1/2010 - Actual	11/1/2010 - Actual	12/1/2010 - Actual	1/1/2011 - Actual	2/1/2011 - Actual	3/1/2011 - Actual	4/1/2011 - Actual	5/1/2011 - Actual	6/1/2011 - Actual	Sum of Key Data
Beginning Fund Balance - Projected	51,111,903	50,896,147	50,629,054	45,161,002	45,868,566	46,282,541	46,945,809	46,719,020	47,184,621	42,894,996	43,026,472	44,395,325	
Source of Funds - Projected													-
Z7 Connection Fee Revenue	(128,007)	128,007	1,120,061	640,035	138,674	426,690	192,010	499,445	396,138	176,062	602,078	1,735,491	5,926,684
DV Connection Fee Revenue	-	-	598,500	-	-	638,400	99,750	391,020	-	545,370	61,740	1,029,000	3,363,780
Interest Revenue/Prepaid Connections/Other	(19,030)	576	92,762	39,428	690,849	24,837	89,095	289	47,896	-	1,134,970	468,417	2,570,090
Total Sources of Funds	(147,037)	128,583	1,811,324	679,463	829,524	1,089,927	380,855	890,754	444,035	721,432	1,798,788	3,232,907	11,860,555
Available Funds - Projected	50,964,866	51,024,730	52,440,378	45,840,465	46,698,090	47,372,469	47,326,663	47,609,774	47,628,655	43,616,427	44,825,261	47,628,233	
Projected Expenditures	68,719	395,676	7,279,376	(28,101)	415,548	426,660	607,644	425,153	4,733,660	589,955	429,935	682,578	16,026,803
Sinking Fund Contribution												145,640	145,640
Net Available Funds and ISA - Projected	50,896,147	50,629,054	45,161,002	45,868,566	46,282,541	46,945,809	46,719,020	47,184,621	42,894,996	43,026,472	44,395,325	46,800,014	
Designated Reserves												8,808,676	
Fund Balance and ISA												55,608,690	

FY 10/11 Key Data:

rojected Connection Fee Revenue: \$ 8,020,827

Actually Received \$ 9,290,464

% of Actual to Projected 116%

Projected Expenditures \$ 17,525,495

Actually Spent \$ 16,026,803

% of Actual to Projected 91%

[illegible]