

# East Bay Water

A Status Report on  
Local Water Use &  
Water Supplies





# Introduction

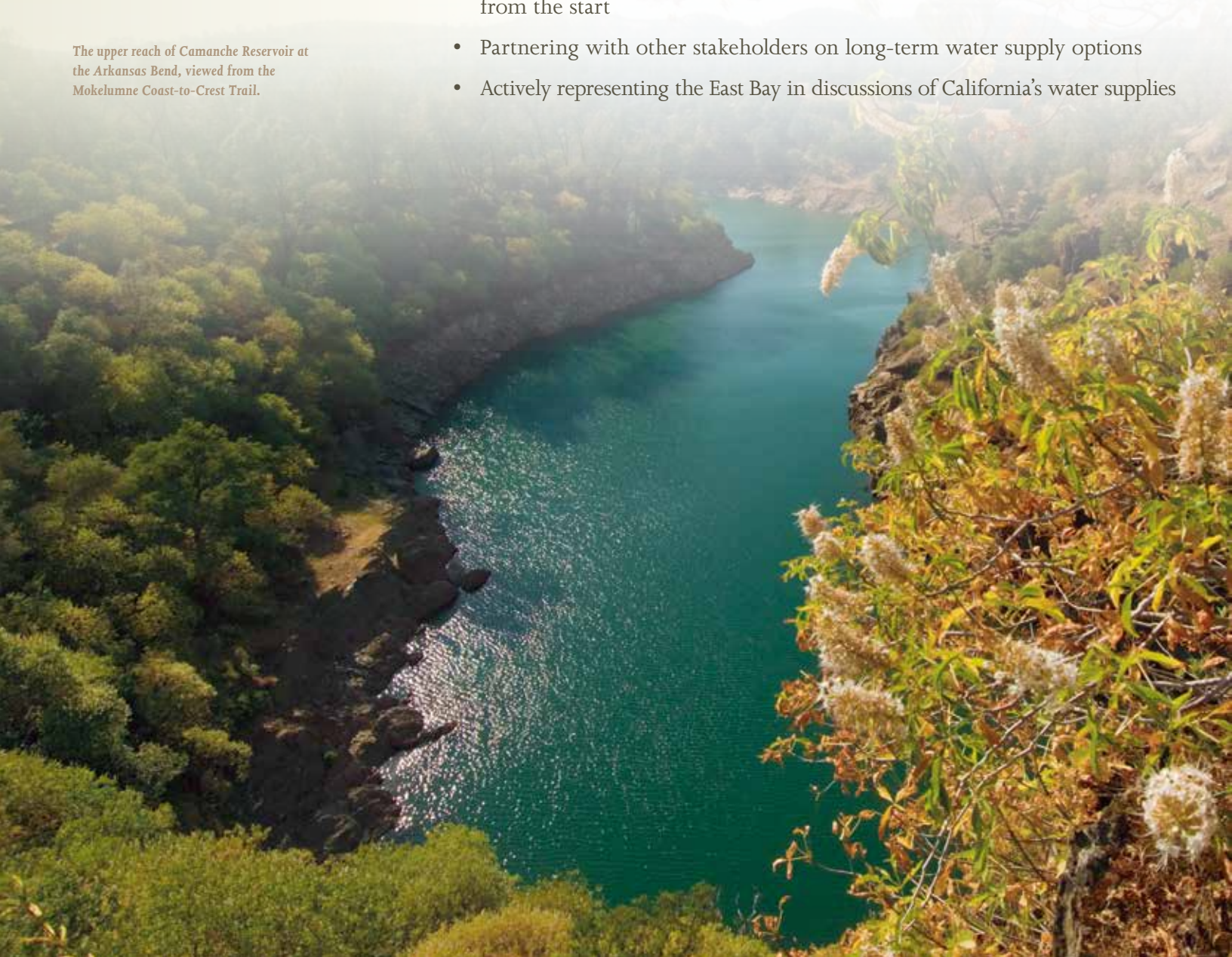
This report describes the water supplies currently used by East Bay communities and plans for ensuring reliable supplies for the future.

The East Bay Municipal Utility District provides drinking water supplies essential to the quality of life we enjoy in the East Bay. Our ability to reliably provide water depends on many partnerships. Local residents and businesses use water efficiently and help us stretch the available supplies. We coordinate infrastructure work with local communities to cost-effectively maintain the water supply and delivery system that stretches across 4,100 miles of pipes. Throughout northern California, a host of agencies work with us to find and store water supplies and protect watersheds for future generations.

As a public agency, EBMUD ensures delivery of supplies to meet today’s needs and plans for tomorrow’s water needs with guidance from an elected Board of Directors. Adopted Board policies give priority to:

- Improving water efficiency through conservation and recycling
- Promoting environmental sustainability
- Preserving the existing boundaries of the area that receives water service
- Requiring new customers in the service area to be water-efficient from the start
- Partnering with other stakeholders on long-term water supply options
- Actively representing the East Bay in discussions of California’s water supplies

The upper reach of Camanche Reservoir at the Arkansas Bend, viewed from the Mokelumne Coast-to-Crest Trail.



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## Inside

Pardee Reservoir holds most of EBMUD’s water supplies. Its depth enables EBMUD to retain cold water and release it through Pardee Dam to the lower Mokelumne River in the fall, providing cooler water to support a healthy fishery.



# Current Water Supply

EBMUD's 1.3 million customers used an average of 161 million gallons per day of water in calendar year 2011 and a similar amount in 2012. To meet the daily water needs of businesses and residents in the East Bay, EBMUD relies on water stored in two large Sierra reservoirs and a network of more than 160 local reservoirs and neighborhood tanks. We reduce water demand by supporting customer efforts to use water efficiently and by providing recycled water for industrial and irrigation uses. In dry years when water supplies are short, EBMUD can activate a contract for additional water supplies from the Sacramento River and can draw some water from underground storage in a local groundwater basin. (The map on pages 14–15 shows available and future water supplies.)

EBMUD evaluates the water supply throughout each rainy season. Each April we forecast one of four scenarios for the following October: normal conditions, moderate shortage, severe shortage or critical shortage. Moderate and severe shortages, respectively, occurred in 2008 and 2009 and customers rationed their water use. In 2010, 2011 and 2012, EBMUD's supply was normal. Under normal water supply conditions, EBMUD asks that customers use water wisely.

## Water for Daily Use

Protecting the East Bay's existing water rights is one of EBMUD's most important responsibilities. Mokelumne River water rights are vital to the East Bay's water supply, since most of our daily water supplies originate from the Sierra-fed Mokelumne. EBMUD is working on updating one of the key water rights permits that secure those supplies.

Like other California rivers, the Mokelumne supports many water supply needs while providing respite and recreation for residents along its course. EBMUD operates its two reservoirs on the river to provide a high-quality water supply for 1.3 million East Bay customers while meeting all regulatory requirements and downstream release obligations.

### Relying on the Mokelumne River



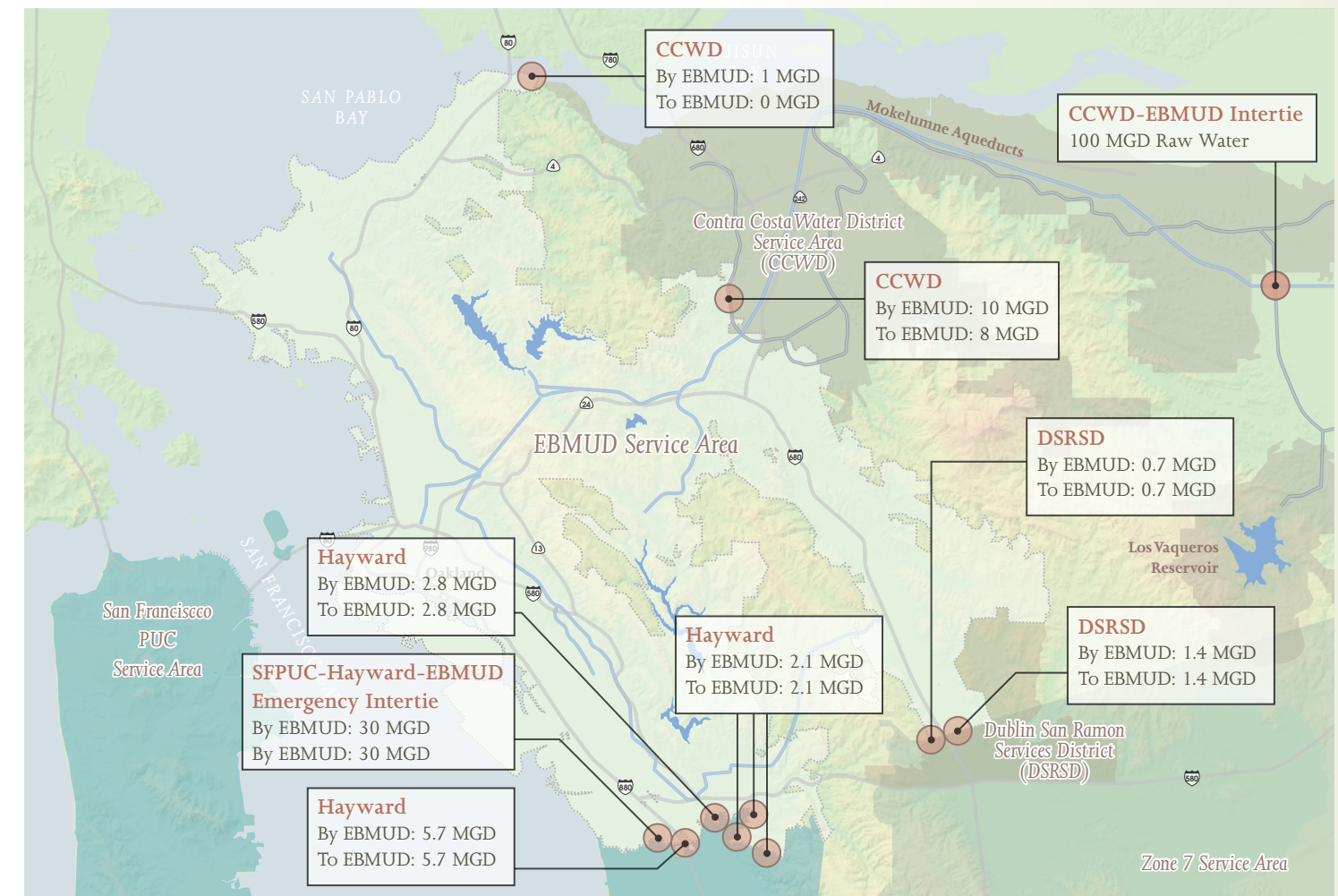
Yet, the amount of water the East Bay can rely on from that central Sierra source is declining. The central Sierra foothill region has more senior rights to Mokelumne River water, and as that region grows, its residents and businesses are using more water. In addition, EBMUD has a long-standing commitment to protect the river environment and maintain fishery conditions on the lower Mokelumne.

To meet the needs of lower Mokelumne fisheries, EBMUD releases up to 148 million gallons a day on average during normal condition water years. EBMUD also releases water to meet the needs of other Mokelumne water rights holders downstream of EBMUD reservoirs.

## Water for Emergencies

Emergencies can disrupt the storage and delivery of current water supplies. EBMUD is ready to receive as well as to provide mutual assistance during emergencies to restore water service as quickly as possible. Pipeline connections that intertie EBMUD to other systems in the Bay Area are in place that will allow partner agencies to share water during emergencies, as well as to make repairs on critical facilities.

EBMUD also works with customers to encourage personal preparedness. Customers should store enough tap water or bottled water to last at least three to seven days during an emergency. That is about one to two gallons per person per day.



Bay Area agencies have water rights to a range of supply sources that have different short-term and long-term vulnerabilities. Interties make it easier for Bay Area agencies to respond to emergencies and keep vital water supplies flowing.

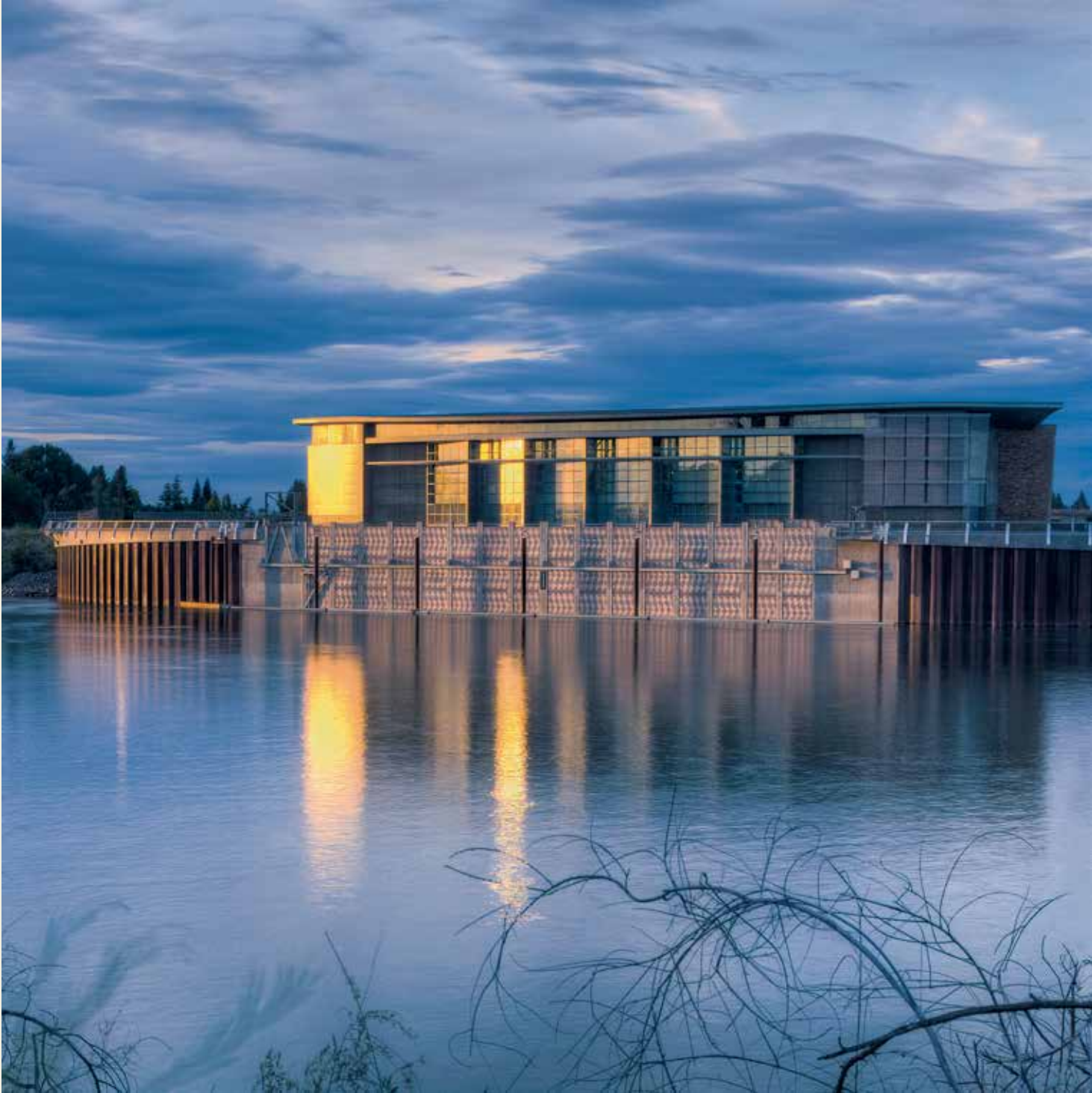


# Water for Dry Years

In years with little Sierra snowfall, the amount of Mokelumne River water held in EBMUD’s two Sierra reservoirs can be well below the target levels of storage (the target is set based on the next two years’ expected water needs in the East Bay). When the Sierra reservoirs’ storage falls below target levels, EBMUD can use a contract for water from the Sacramento River to draw up to 100 million gallons per day of additional water supplies.

EBMUD’s strategy for meeting the region’s need for water begins with demand management. EBMUD is currently achieving the 2020 goal for reducing water use that the State of California set for each water service provider. East Bay customers conserve supplies year-round through wise water use. During times of severe drought, EBMUD policy calls for customers to save even more—up to 15 percent of overall supplies.

When needed, EBMUD can draw water from the Sacramento River via the Freeport Regional Water Facility, completed in 2011.



# Conserving Water

The typical East Bay residence uses approximately one-third less water today than in the 1970s. EBMUD supports efforts to conserve water by advising residential, commercial and industrial customers on water-efficient fixtures, appliances and equipment, and by demonstrating how outdoor landscaping can be both water-efficient and beautiful.

EBMUD’s 4,100-mile water distribution system receives constant attention. On average, water pipes in the ground are more than fifty years old. Some are nearly a century old. Hard-wired and hand-held leak detectors, coupled with customer reports of leaks, help EBMUD dispatch crews to investigate potential leaks.

## Recent Water Conservation Savings

Since the 2008 drought ended, customers have continued to use water wisely and EBMUD has developed a new water conservation master plan to support continued customer conservation.

**WaterSmart Practices at Home** Residential water use keeps getting more efficient. Outdoors, more households are controlling water use by using efficient irrigation systems and selecting plants that thrive in our summer-dry climate zone. Inside, a growing percentage of customers use water-efficient practices, appliances and fixtures, and repair leaks.

High-efficiency toilet rebates are popular with customers. Toilets installed with EBMUD rebates in 2011/2012 are saving an estimated 85,460 gallons of water or more every day. Clothes washer rebates also are popular, and in fiscal years 2011 and 2012 18,269 EBMUD residential customers participated in a joint water and energy rebate program implemented by Bay Area water utilities and PG&E. By completing one rebate application, East Bay residents who purchased qualifying clothes washers saved an estimated combined 345,280 gallons of water daily.



Berkeley students participating in California Youth Energy Services (CYES) retrofit plumbing fixtures for EBMUD customers with water and energy conserving devices. This program, run by the non-profit Rising Sun Energy Center and sponsored by EBMUD, educates teachers, students and the community about water and energy conservation and available utility services.



The David Brower Center in Berkeley has received certification from EBMUD as a WaterSmart Business. The 50,000 square foot facility uses recirculating cooling, radiant heat and rain water catchment along with high-efficiency water fixtures. A similar building with traditional plumbing would consume 3–5 times as much water.



### WaterSmart Businesses

Saving water is a good business practice and improves the bottom line for East Bay businesses. The EBMUD Board of Directors recognizes businesses and institutions for outstanding water use efficiency when they work with EBMUD to assess their water use, implement water saving measures at their facilities, and make ongoing water management a priority. Businesses that participate in the WaterSmart Business Certification program receive expert assistance in evaluating water use. In some cases, they qualify for rebates on water conserving technology. Businesses implementing water-efficient best practices can publicly display their EBMUD WaterSmart certificate for up to three years. In fiscal years 2011 and 2012, EBMUD recognized 27 businesses for their

WaterSmart practices. To date, WaterSmart businesses have reduced their annual water use by more than 18 million gallons since 2010—that’s enough water to serve approximately 200 households for an entire year.

### Conservation in the Community

State law requires EBMUD to serve water for all development approved by land-use planning agencies within its service area. EBMUD tries to reduce the impact of new users on the water supply we all share. To be eligible for water service, new EBMUD customers must meet rigorous indoor and outdoor water efficiency standards for appliances, landscaping, plumbing fixtures and for commercial processes that use water. EBMUD encourages sustainable development and landscape design and works with local land-use planning agencies to make it happen by providing free landscape plan and code review to support water-efficient landscape choices and building designs.

To help existing residents and businesses use only the water they need, EBMUD conservation experts talk with thousands of customers at community fairs, festivals and events sponsored by neighborhoods, cities, towns, businesses and civic groups. Demonstration gardens in Alameda, Oakland and Walnut Creek help local residents better understand low water use approaches to beautifying local property. EBMUD’s award-winning book, *Plants and Landscapes for Summer-Dry Climates*, is a useful resource for gardeners that describes water efficiency and sustainable design principles.

Shut-off nozzles save water when hand-irrigating.



## Water Conservation Program FY11 and FY12

Program Description	Activity or Accounts	Incentives (\$)	Water Savings (gpd)
Residential Services			
Single-Family Surveys	215	—	14,210
Multi-Family Surveys	261	—	45,080
CYES Student Surveys	987	—	19,740
Home Water Use Do-it-Yourself Survey Kits	2,895	—	—
Residential Incentives			
High-Efficiency Clothes Washer Rebates	18,269	\$913,200	345,280
High-Efficiency Toilet Rebates	3,911	\$233,984	85,460
Residential Landscape Rebates	166	\$66,241	18,720
Free Device Distribution	15,261	\$20,108	16,790
Subtotal Residential Program Savings/Incentives	41,965	\$1,233,533	545,280
Non-Residential Services			
Commercial Surveys	452	—	30,970
Industrial Surveys	6	—	2,900
Institutional Surveys	28	—	17,310
Non-Residential Incentives			
Commercial Clothes Washer Rebates	27	\$14,650	2,700
Custom Non-Residential Rebates	10	\$4,068	1,700
Commercial Dishwashing Spray Valves	13	\$390	1,430
Toilet/Urinal Rebates	154	\$10,000	1,700
Subtotal Non-Residential Program Savings/Incentives	690	\$29,108	58,710
Irrigation Services/Incentives			
Irrigation Surveys	173	—	85,430
New Customers in the Water Budget Program	311	—	44,380
Annual Water Budgets Delivered to Customers	20,700	—	—
Landscape Irrigation Upgrade Rebates	41	\$34,389	38,550
Irrigation Controllers (Residential and Commercial)	17	\$2,050	1,950
Subtotal Irrigation Savings/Incentives	21,242	\$36,439	170,310
Total EBMUD Program Incentives/Savings FY 11 and 12	63,897	\$1,299,080	774,300



Finding Leaks in Underground Pipes

It’s expensive to repair damage that can occur when there are leaks on large pipes that serve thousands if not hundreds of thousands of customers. Finding the leak early reduces the cost of repairs and the amount of disruption to our customers’ daily life resulting from the repair work, while saving the valuable water supply. EBMUD regularly deploys acoustic pipeline leak detection equipment designed to listen for running water and to report findings via a computer uplink. EBMUD leak detection efforts have located leaks not only on EBMUD pipelines in the streets but also on homeowner pipes in neighboring yards.

The average age of the 4,100 miles of pipes in our system is more than 50 years. As our pipes age they can be more susceptible to cracking, corroding and even bursting. As infrastructure ages, it takes more work to keep it in good working condition so dependable water supplies arrive at customer taps round-the-clock, every day of the year. Maintenance and replacement work planning focuses on ensuring public, worker and environmental safety and considers the financial burden to customers and the potential disruption to daily life that results when crews are at work near homes and businesses.



The median strip near El Cerrito City Hall demonstrates low-water-use landscaping.

Conservation for Tomorrow

Over the past two decades, EBMUD-sponsored conservation programs have saved an estimated additional 26 million gallons per day of water in the service area. By 2040, EBMUD is committed to saving an additional 36 million gallons per day through residential and commercial indoor and outdoor water use surveys; technical assistance; leak detection services; incentives including distribution of water-saving showerheads, aerators and other devices; water-efficient technology research; and on-going customer education and outreach. All told, EBMUD water conservation efforts for the period 1995-2040 are projected to save nearly 23 billion gallons of water annually by the year 2040.

EBMUD’s Water Conservation Master Plan was updated in 2011. It reviews water demand, water savings, and future conservation and drought response plans. Its ten-year implementation schedule is consistent with water demand reduction targets established by the Urban Water Management Planning Act, the Water Conservation Act of 2009, and the Statewide Memorandum of Understanding for Urban Water Conservation. The plan is available on EBMUD’s website.

Recycling Today

EBMUD currently can produce an average of nine million gallons per day of recycled water. Plans are in place to construct more pipelines and pumping plants so additional customer sites using recycled water can be built or retrofitted. EBMUD’s Recycling Master Plan calls for recycling up to 20 million gallons per day by 2040, reducing the overall need for drinking water by approximately six percent.

EBMUD customers use recycled water for irrigating landscapes, including parks, greenbelts, community and school sports fields, business parks, and private and public golf courses. Recycled water also is used for industrial applications, construction dust control and flushing toilets. Recycled water has protected Bay Area investments in landscaping and parks from episodic droughts for nearly a century. EBMUD has used recycled water for more than 40 years for industrial processes and irrigation at the wastewater treatment plant located at the foot of the Bay Bridge in west Oakland.

EBMUD’s East Bayshore Recycled Water Project supplies recycled water for irrigation in portions of Oakland and Emeryville. EBMUD plans to expand the recycled water distribution system in Emeryville and into Albany, Berkeley and Alameda. In 2011, customers in Oakland and Emeryville used about 80,000 gallons per day and EBMUD used another 2.3 million gallons a day at its wastewater treatment plant.

EBMUD also provides recycled water in partnership with other public agencies: the West County Wastewater District for service in Richmond, the City of San Leandro for service in Alameda and the Dublin San Ramon Services District for multiple EBMUD customer sites in the San Ramon Valley.

EBMUD delivers recycled water to parks, greenbelts, schools, common area landscapes and a golf course in the San Ramon Valley. In 2011, that use offset the need for more than 500,000 gallons per day of drinking water.

EBMUD works closely with local businesses that use large volumes of water for industrial processing to evaluate opportunities to replace drinking water with recycled water. One example is the Chevron refinery in Richmond. It has been using recycled water in its industrial cooling towers since 1996. In 2011, Chevron used an average of almost 4 million gallons per day in three cooling towers and 3.1 million gallons per day in its boilers.



EBMUD’s East Bayshore Recycled Water Project provides recycled water to portions of Oakland for landscaping at places like Lake Merritt.

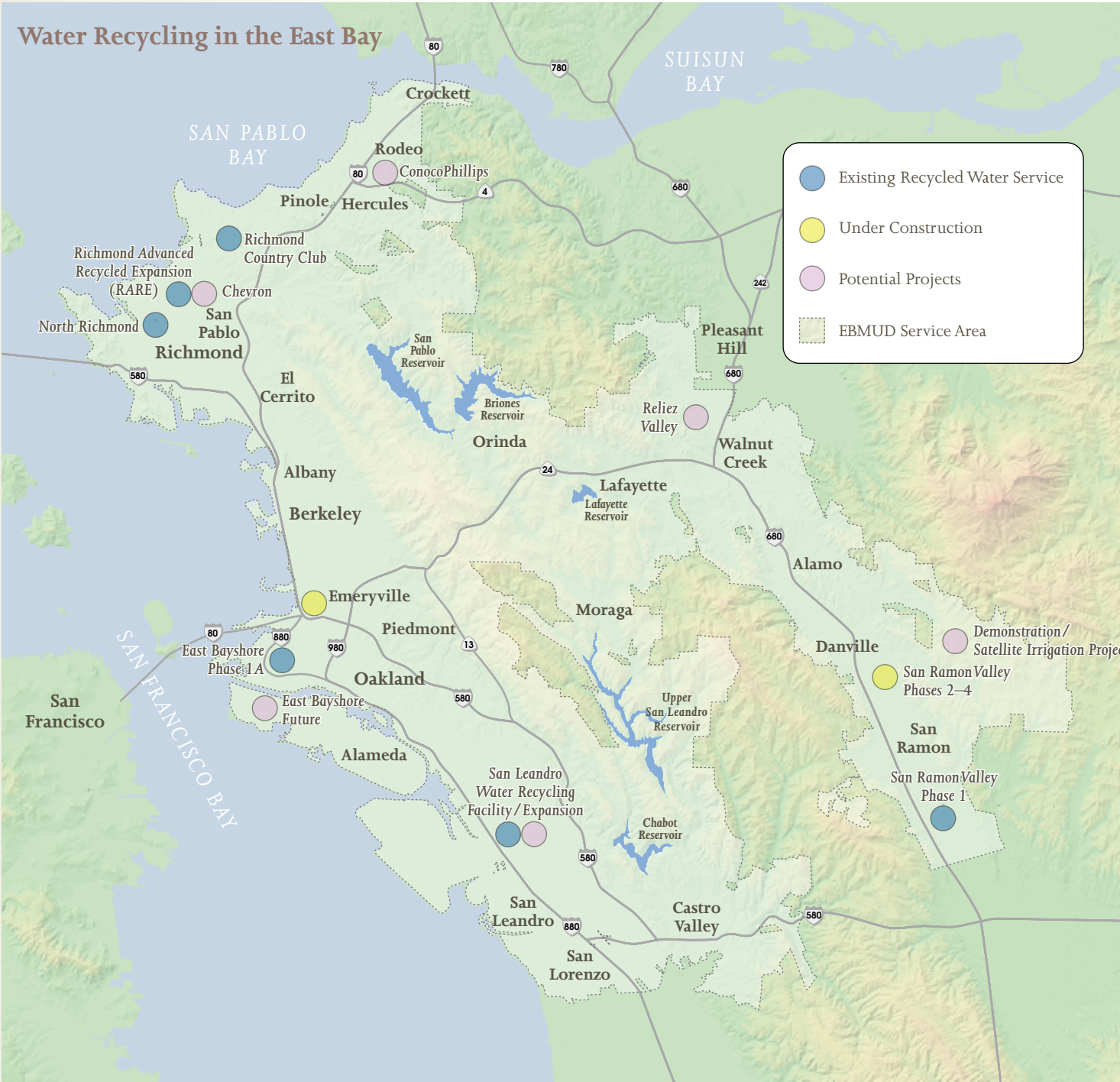
Recycling Water



# Recycling in the Future

EBMUD’s goal is to be reusing 20 million gallons per day of recycled water by 2040. During water shortages, recycling will reduce the overall system demand by about six percent.

One area of future growth is West Contra Costa County, the northwestern part of EBMUD’s service area. Hercules, Pinole, and West County Wastewater District are all potential sources of effluent that could be used for recycled water. EBMUD’s long-range water supply plans identify several potential recycled water projects, including projects in West County, which could use effluent from these agencies for primarily industrial processes (see map).



# Future Water Supply

In 2012, the EBMUD Board of Directors adopted a new long-term water supply plan to meet customer needs through the year 2040. The plan is a partnership-oriented approach to cope with changing demand for water locally and statewide, and relies on the latest knowledge from technical research into how climate change can affect local water supplies over the long term.

The 2040 plan has three fundamental assumptions:

1. **Water-efficient hardware and wise water use habits are ingrained and will make it harder for East Bay customers to cut back in droughts.** Each increment of future savings will be more difficult to achieve.
2. **Growth in the Central Sierra will affect EBMUD’s daily supply source, the Mokelumne River.** The Central Sierra foothill communities located near EBMUD’s water supplies face growth pressures. EBMUD is working with the foothill region to promote land management programs that will protect water quality as land is developed, to protect the Mokelumne and to meet the needs of the many Californians that rely on it.
3. **Global climate change will add uncertainty over time.** The long-term impacts of climate change on water supplies are complex (see below). The best strategy is a robust, flexible water supply program that can adapt to a variety of future conditions.

With guidance from previous long-term water supply plans, EBMUD promoted conservation and recycling, developed emergency pipeline connections with adjacent water service providers, improved drought supplies and launched pilot studies of groundwater and desalination. The Water Supply Management Program 2040 (WSMP 2040) is a strategy to meet future water supply needs by working with stakeholder groups and customers. WSMP 2040 will rely on the most cost-effective measures for reducing water demand to build on decades of aggressive conservation and water recycling in the East Bay. WSMP 2040 recognizes California’s conservation savings goal to achieve a 20 percent statewide reduction in water use by the year 2020.

Above and beyond the aggressive water conservation goals established in WSMP 2040, EBMUD relies on an additional 15 percent reduction in water use by all customers in multi-year droughts. Reaching this target could require as much as a 19 percent reduction by single family residential customers in dry years.

EBMUD will simultaneously investigate several ways to close the anticipated gap between long-term water supplies and projected water needs. The options to be explored include groundwater banking/conjunctive use, water transfers, regional desalination and water storage. Parallel study provides the best possibility of timely success in the face of statewide water challenges, a complex regulatory environment, and the threat of climate change.

## Climate Change

Despite the uncertainties with global climate models, climate change is almost sure to pose new challenges for providing safe and reliable water supplies. EBMUD has identified how changes in temperature and precipitation may affect the water system, and routinely assesses its ability to respond to those vulnerabilities.

### Increasing Outdoor Water Use

A warming climate could extend the growing season, reduce natural soil moisture content and result in more heat waves.

### Decreasing Water Supplies

A warming climate could decrease precipitation and the snow pack and change the timing of spring runoff.

### Warmer Waters

Warmer river temperatures could hurt salmon eggs that need cool water to survive. Warmer ocean temperatures could stress migrating fish by disrupting the oceanic food chain. EBMUD supports aquatic habitats by managing its Sierra reservoirs to release cold water to the lower Mokelumne River; warming waters would make this more difficult.

### Increasing Flood Risks

A rise in sea level could increase flooding risks to communities along San Francisco Bay and to Delta levees that protect EBMUD’s aqueducts across the Delta.

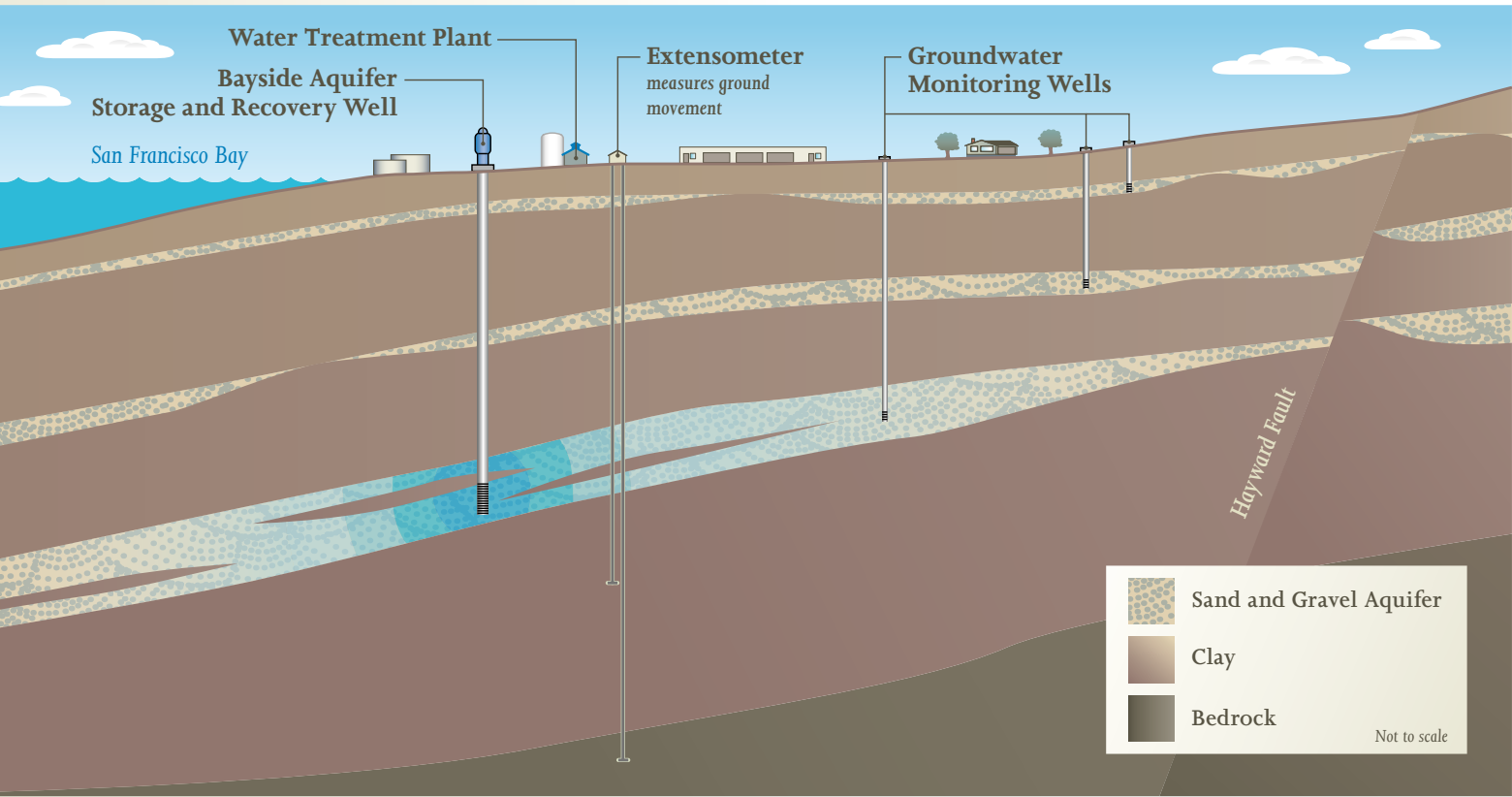
### Greenhouse Gas Emissions

EBMUD monitors and mitigates its greenhouse gas emissions and produces renewable energy. In an average year, EBMUD hydropower generation exceeds the amount of power needed to treat and deliver water to our 1.3 million customers. EBMUD also generates solar power at several facilities and is a net energy generator at its wastewater treatment plant. EBMUD is an active participant in national efforts by EPA and by industry groups to assess the vulnerabilities to water supplies that could result from a changing climate.

New Water Storage in the Greater East Bay

The fragile state of the Delta is a concern for EBMUD because our aqueducts cross the Delta. One option now being explored that could help mitigate that concern is to store some EBMUD water in Contra Costa Water District’s (CCWD) Los Vaqueros Reservoir, which is located to the west of the Delta. CCWD has expanded that reservoir and EBMUD could partner with CCWD for a portion of the storage that was created.

EBMUD also can store some water locally in a deep underground aquifer. (See below)



The Bayside Groundwater Facility is a state-of-the-art groundwater injection well that can move some water into a deep underground aquifer more than 500 feet below ground. During shortages, EBMUD can draw the water from storage into the treatment facility and then distribute the treated water to customers. The well can provide a supply of up to one million gallons of water per day on average.

Water Transfers and New Water Storage

The EBMUD-Sacramento County jointly-owned pumping facilities on the Sacramento River offer another way to move water to places where it is needed. Conjunctive use projects designed to replenish groundwater basins in wet years and also store some water underground for use during future dry times are being investigated in Sacramento County and San Joaquin County. EBMUD is exploring water transfer and exchange possibilities throughout Northern California that would make use of the Sacramento River pumping facilities at Freeport.

An additional option being explored is a regional project that would include conjunctive use opportunities in San Joaquin County (one or more groundwater storage projects located in the county).

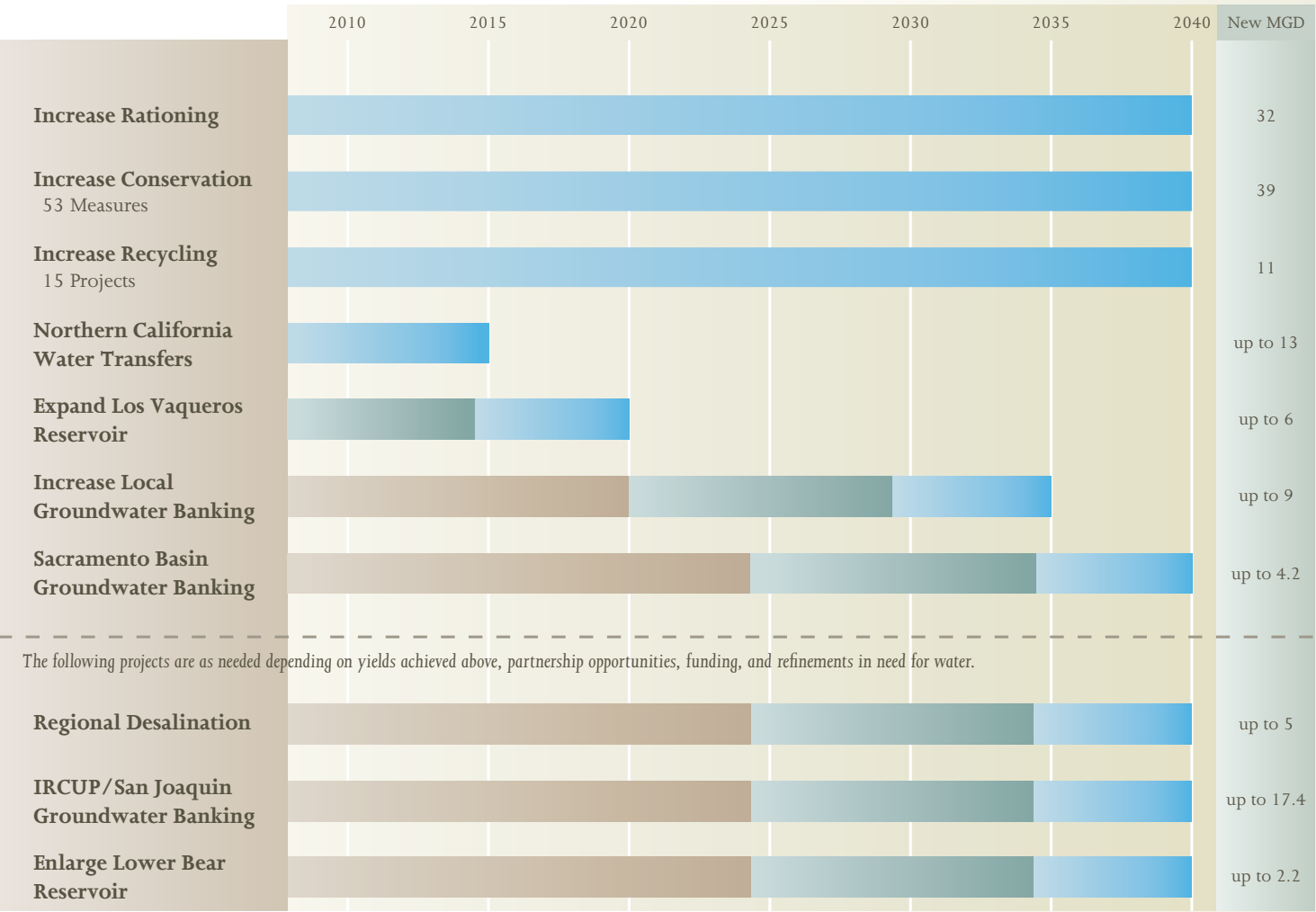
EBMUD is committed to a partnership-driven approach for any water supply and/or storage plan. Before moving to project-level planning, stakeholder support, regional benefits and a confirmed need for water will need to be in place.

Regional Desalination

Taking the salt out of brackish or salty water has been possible for many years, but prohibitively expensive. EBMUD is working with other Bay Area water agencies (Contra Costa Water District, San Francisco Public Utilities Commission, Santa Clara Valley Water District and Zone 7 Water Agency) to explore adding desalinated water to the local water supply. Today, the costs of desalination are lower, but questions remain about the environmental impacts of the process.

A pilot test showed it would be feasible to desalinate up to 20 million gallons per day of water at a location in eastern Contra Costa County. Desalination costs are still high, and environmental impacts must be analyzed and addressed. But over time, with advancements in technologies, desalination may prove to be a viable supplemental supply source for the Bay Area. Investigation into this supply option continues to assess the pros and cons of moving forward into an actual operation.

EBMUD’s 30-Year Plan to Meet the East Bay’s Water Needs\*



\*Assumes that when needed, an average of 32 million gallons per day (MGD) will be saved through rationing to stretch supplies. Project MGD by project as estimated in WSMP 2040; actual yields to EBMUD and project partners will vary.

Exploratory Phase Determine Project Feasibility Implementation of Feasible Projects



# WSMP 2040:

*Diverse Regional Partnerships Seeking a Secure Water Future*

## Conservation and Recycling

Water conservation and recycling are critical elements of EBMUD water supplies for today and tomorrow. Water Supply Management Program 2040 calls for conserving 62 million gallons a day by 2040 and for recycling 20 million gallons a day by that same year. Additionally, customers will be asked to cut use up to 15 percent in dry years.

## Desalination in Partnership with Multiple Bay Area Water Agencies

Continuing study and investigation of how desalination could one day serve as a supplemental water source.

Existing water supply

Dry-year water transfer options

Regional interties

Future supply options

## Supply Transfers

Potential partnership agreements with other water agencies. Water transfer agreements allow agencies to share their supplies to best meet their collective water needs.

## Sacramento County Groundwater

Potential partnerships with water agencies and interests in Sacramento County.

Water would be stored ("banked") in the underlying groundwater basin in wet years. The banked groundwater would be extracted during dry years and delivered to EBMUD via the Freeport intake and Mokelumne conveyance facilities.

## Lower Bear Reservoir

Continued partnership with Amador Water Agency, PG&E and other foothill water interests to study the option to expand the water storage volume of Lower Bear Reservoir.

## San Joaquin Groundwater

Potential partnership(s) with Upper Mokelumne River Water Authority (UMRWA) and Northeastern San Joaquin County Groundwater Banking Authority (GBA) member agencies as well as environmental interest groups.

UMRWA in partnership with the GBA has secured grant monies through the California Department of Water Resources to implement the Mokelumne Watershed Interregional Sustainability Evaluation (Moke WISE) Program. The goal of the work effort is to identify comprehensive and sustainable approaches to water resources management in the Mokelumne watershed. A wide array of water sources and strategies to balance water supplies and demands while minimizing environmental impacts will be investigated.

As the concept moves forward, partnership arrangements will become clearer, as will possible program elements such as expanded use of recycled water, groundwater storage/conjunctive use, increased water conservation, etc.

## Expand Los Vaqueros

Potential partnership with Contra Costa Water District (CCWD).

In mid 2012, CCWD completed the expansion of their Los Vaqueros Reservoir, increasing the total storage from a total of 100,000 acre feet to 160,000 acre feet. CCWD has indicated that a portion of the storage capacity created could be made available to EBMUD and that CCWD's existing conveyance facilities could be used to move water to and from the reservoir. EBMUD is working with CCWD to develop plans to move the concept forward.



# EBMUD and the Delta

The Sacramento-San Joaquin Delta provides habitat for more than 500 species. It provides water to roughly two-thirds of California's population, is a vital recreation resource and is critical to commercial fisheries, agriculture and an extensive network of infrastructure including EBMUD's Mokelumne Aqueducts. State legislation passed in 2009 calls for investing billions in restoring the ecosystem, protecting levees and potentially building a canal or tunnel to take water south of the Delta.

EBMUD does not deliver Delta water to the East Bay, but 60 percent of water for the Bay Area comes from the larger Delta watershed. Over the past two decades, EBMUD investments in Delta-related projects have totaled almost \$100 million to protect and maintain aqueducts and levees and effectively manage the Mokelumne River fishery.

Pressures to increase freshwater inflows to the Delta may lead to new limits on upstream water diversions, including EBMUD's water diversions from the Mokelumne River (which represent about 1.5 percent of all Delta watershed diversions). Projects to improve the conveyance of water to the

Delta export pumps may disrupt the migration of the steelhead and salmon that EBMUD has invested so heavily to restore. And funding that now helps maintain levees that protect EBMUD's aqueducts could be diverted to other purposes.

EBMUD has an exemplary record in water use efficiency and stewardship of natural resources. Average fall-run Mokelumne River salmon returns over the past ten years have surpassed the long-term historic average, an indicator that the stewardship program is working. Any Delta restoration plan must provide that EBMUD's resource management plan can continue to ensure the river's health.

In addition to the potential effects a new Delta plan could have on water supplies, it also could affect water costs. Some options would make the East Bay responsible for a share of the costs for new water facilities it doesn't want or need. Other options would increase EBMUD's financial obligation to protect Delta levees.

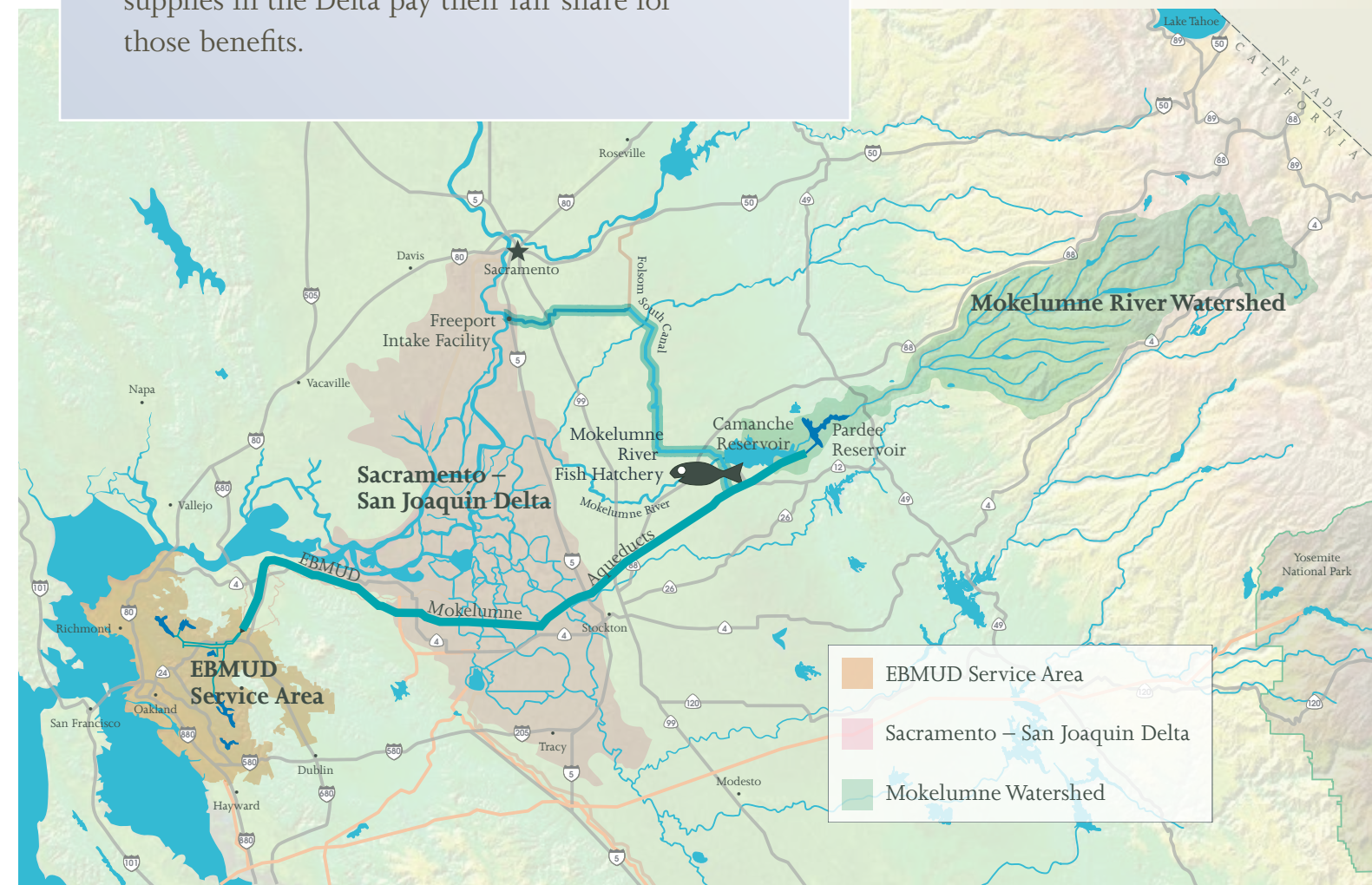
EBMUD is working to ensure the interests of its customers are protected while actively participating to help balance the many competing needs in the Delta.

## EBMUD Goals for the Delta

- Ensure that any additional Delta flows needed to mitigate impacts from a new tunnel or canal are provided by the direct beneficiaries of that project
- Strengthen the levees surrounding islands that protect critical infrastructure, including EBMUD's Mokelumne Aqueducts
- Protect the Mokelumne fishery and its migratory routes through the Delta
- Minimize impacts on water supplies from the Freeport facility on the Sacramento River
- Ensure that those who benefit from new water supplies in the Delta pay their fair share for those benefits.

EBMUD has invested millions in the lower Mokelumne River salmon fishery, and Delta operations affect the migration of fish from the Mokelumne.

Decisions about the Delta could affect the cost of the East Bay's water and the reliability of its water supply.





**EBMUD provides high-quality drinking water for 1.3 million customers in Alameda and Contra Costa counties.**

**EBMUD's award-winning wastewater treatment plant generates renewable energy from waste and protects San Francisco Bay; it serves 650,000 customers.**

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Printed on FSC-certified recycled paper  
Publication 130/Dec 12/3 M



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