

SAN GABRIEL VALLEY  
MUNICIPAL



WATER DISTRICT

AZUSA | SIERRA MADRE | MONTEREY PARK | ALHAMBRA

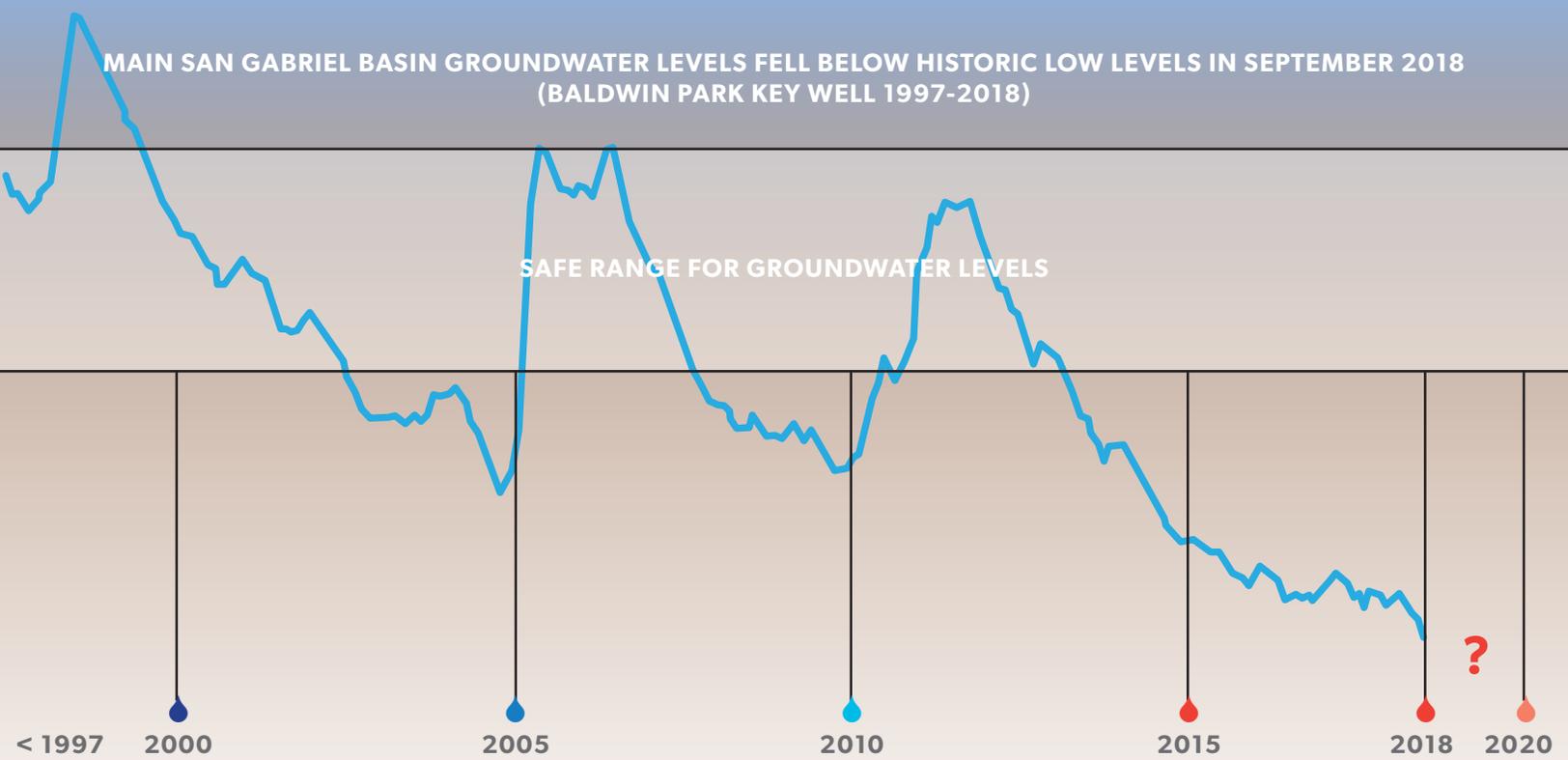
## 2017-2018 ANNUAL REPORT



### THE NEW NORMAL

*Meeting our Water Supply Challenges by  
Strategic Management, Infrastructure Investments and Conservation*

MAIN SAN GABRIEL BASIN GROUNDWATER LEVELS FELL BELOW HISTORIC LOW LEVELS IN SEPTEMBER 2018  
(BALDWIN PARK KEY WELL 1997-2018)



## BOARD OF DIRECTORS



Mark R. Paulson  
Division I - Alhambra



Dr. Steven Placido  
Division II -  
Alhambra and  
Monterey Park



Thomas Wong  
Division III -  
Monterey Park,  
President



Miles L. Prince  
Division IV -  
Sierra Madre



Raul Romero  
Division V - Azusa

## Mission Statement

The San Gabriel Valley Municipal Water District provides reliable supplemental water for the communities of Alhambra, Azusa, Monterey Park and Sierra Madre in a cost-effective and environmentally responsible manner.



Darin J. Kasamoto  
General Manager



Ed Hills  
Assistant General  
Manager



Dear Friends:

*This past year has brought tremendous challenges and opportunities for our District. With heavy precipitation in northern California in early 2017, we were able to complete one of the largest deliveries of water from the State Water Project in our District's history, in excess of 25,000 acre-feet. Our water deliveries supplemented local groundwater supplies, which our member cities depend on, and generated 1,396.5 MWh of "green" hydroelectric power along the way. We've also executed several exchange agreements whereby we partner with other local water agencies to assist with their water delivery needs via our pipeline.*

*However, local precipitation over the past year has been extremely low and, as of mid-September 2018, groundwater levels in the Main San Gabriel Basin dropped below historic low levels. The reality is that despite significant precipitation in early 2017, our local groundwater supplies, on which we rely for more than 77% of our supply, did not recover from the recent 5-year drought.*

*As we continue to experience this "New Normal" of persistent drought conditions, we must move our communities towards long-lasting attitude and behavior changes—towards a more water-efficient way of life. Toward that end, our Board recently passed a Resolution that "commends the San Gabriel Valley's adaptive water management practices...and the commitment of the Valley's water providers and local agencies to water conservation which, together, have prevented local groundwater supplies from reaching historic low levels much sooner."*

*The recurring cycle of drought underscores the need for developing a resilient and sustainable water supply, featuring smart management and infrastructure investments, along with conservation. We increasingly see water-related funding, legislation and ballot measures at the local, county and state levels that will help finance much needed water infrastructure improvements.*

*Our Board and Staff look forward to continuing our leadership in the region to help to ensure a reliable, sustainable, and affordable water supply, now and into the future. We will redouble our efforts to engage and partner with our member cities, other water agencies, schools, community groups and leaders towards that end in the years ahead.*

*In closing, I'd like to note the retirements in 2018 of two long-serving board members, Tom Love and Raul Romero. We thank them for their dedicated service and contributions. I'd also like to thank our staff for their daily professionalism and sense of urgency in operating the District's facilities, and commend our member cities which are institutionalizing strong water management and conservation practices. As we confront our water future, the New Normal = Drought and Conservation!*

Sincerely,

Thomas Wong  
President, Board of Directors  
San Gabriel Valley Municipal Water District

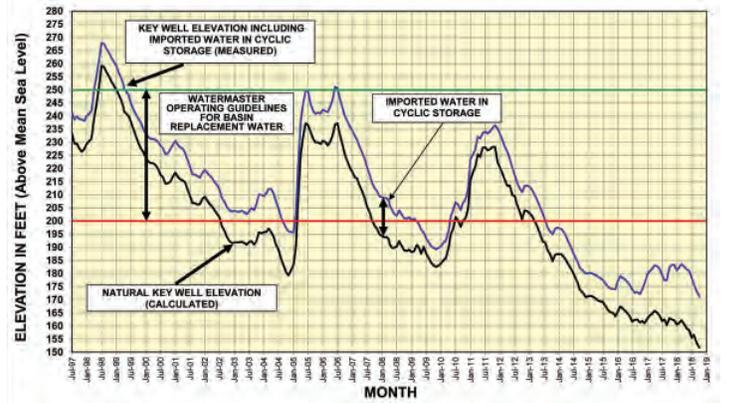
# GROUNDWATER: OUR "BUCKET LIST" TO MEET THE CHALLENGE OF SUSTAINABLE SUPPLY

More than three-fourths of the water used by residents and businesses in the San Gabriel Valley is sourced from local groundwater supplies. Therein lies the opportunity as well as the challenge.



## GROUNDWATER STATUS ▶

The black line shows where groundwater levels would be without cyclic storage and the blue line shows actual groundwater levels. While northern California's water supply improved during the rainy 2016-2017 winter, the benefits to our local groundwater were much less pronounced...we've continued on a downward trajectory, surpassing historic low levels in mid-September 2018. (Right: Baldwin Park Keywell Groundwater Graph)



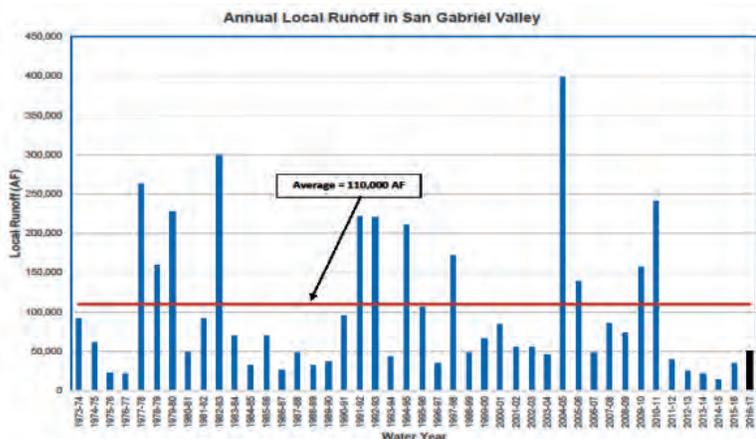
## HOW AND WHY DID WE FALL BELOW HISTORIC LOW GROUNDWATER LEVELS?

### ↓ The Drought Never Ended in the San Gabriel Valley

Despite increased precipitation statewide in 2016 - 2017 and the positive impact it had on snowpack and reservoirs, local groundwater levels showed only slight improvement. We've had five multi-year drought cycles since 1959.

### ↓ Runoff from Local Mountains to Groundwater Locations Has Diminished

Reduced rainfall, hot weather, evaporation and thirsty vegetation reduce the amount of water that seeps down to groundwater. The summer of 2018 was the hottest in Southern California in 124 years of recordkeeping.



### ↓ Precipitation Declined Considerably in Late 2017 and All of 2018

The 2017-2018 rainy season was the third driest in over 140 years. Los Angeles received only 4.7 inches of rain. 15 inches is normal.

### ↓ Imported Water Deliveries Were Reduced in 2018

Allocations from the State Water Project were reduced from 85% in 2017 to 35% in 2018. Long-term, we also have to anticipate supply disruptions resulting from aging or storm-impacted infrastructure.

### ↓ Demand and Well Production Have Increased

Increasing population, new housing and business growth increase demand for water.

### ↓ Conservation Has Declined Since Drought-Era Mandatory Restrictions

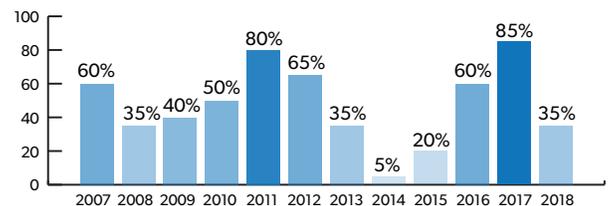
The Valley exceeded the mandatory 25% conservation requirement during the drought emergency, however, conservation has declined 10-15% in recent years.

## HOW WILL WE INCREASE GROUNDWATER'S RELIABILITY?

### ↑ Adaptive Water Management

The District partners with the Main San Gabriel Basin Watermaster, which administers water rights and manages the withdrawal, replenishment and quality of groundwater resources within the Basin. Through strategic planning, water transfers, exchange agreements and other forms of partnerships, the District leverages and optimizes resources, technology and infrastructure to get every drop of water possible into our groundwater Basin. Long-term, we must develop a solution for the Delta that assures reliability of imported water.

#### State Water Project Annual Allocation to SGVMWD



### ↑ Recycled Water

The San Gabriel Valley has had a modicum of success with recycled water projects. New projects, under construction and review in and around the San Gabriel Valley, present opportunities for supplementing groundwater supplies.

### ↑ Stormwater Capture

A hallmark of the San Gabriel Valley's water infrastructure is its ability to capture and reuse stormwater before it escapes to the ocean, requiring cities and the County to work closely together to protect water quality.

### ↑ Reduce Demand through Efficiencies and Conservation

Water management, leak detection, water-wise technologies, and investments in infrastructure will allow us to meet increased demand with less production.

Investing in public education programs, rebate programs, grant programs and other ways of motivating water-wise behavior, especially among our younger generations, is a key strategy to preserve our groundwater supplies. Every gallon of water we save is one we don't have to import, pump, treat, recycle, desalinate or purchase. We've exceeded 25% conservation levels in the past and we must do it again.

# 2017-18 HIGHLIGHTS

## WATER SUPPLY RELIABILITY & OPERATIONS HIGHLIGHTS

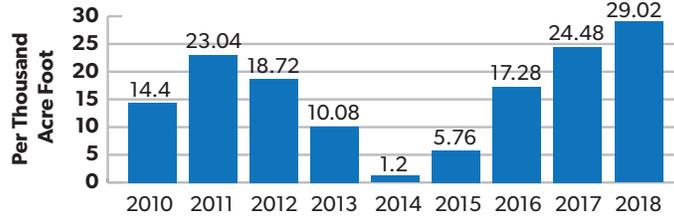
The District is one of 29 State Water Contractors. Our primary mission and operational responsibility is to deliver imported water from northern California through our pipeline to supplement local groundwater supplies in the Main San Gabriel Basin. That water is referred to as “cyclic storage” and is stored for future use. The District provides “water insurance” and a variety of water solutions for our member cities and has also developed exchange agreements whereby we partner with other local water agencies in the Basin to assist with their water delivery needs utilizing our pipeline.

Major operational accomplishments in the 2017-2018 fiscal year included:

- **Supplemental Water** – planned water supplies from the State Water Project to the Main San Gabriel Basin for calendar year 2018 are 10,080 acre-feet (AF), compared to 29,024 AF in 2017. The graph displays the variability of the District’s water deliveries this decade (one acre-foot supplies water for a typical family one year). As shown, deliveries declined significantly during the recent severe drought hindering recovery of the Basin’s groundwater supplies.
- **Connection to Covina Irrigation Company** – the District was able to assist Three Valleys Municipal Water District by delivering 6,588 AF of water to the CIC water treatment facility through a direct connection to the District’s pipeline.
- **Hydroelectric “Green Power” Generation** – the District was able to increase green power generation in the past year as more water flowed through its pipeline and the San Dimas hydroelectric plant. The power generation reached 1,396.5 MWh, assisting the District’s budget by more than \$50,000.



Annual Water Deliveries by SGVMWD



## FINANCIAL HIGHLIGHTS

### Strategic Financial/Cost Management

The District’s balance sheet and financial reserves continue to improve while we manage through uncertainties presented by increased fixed costs and variable revenue.

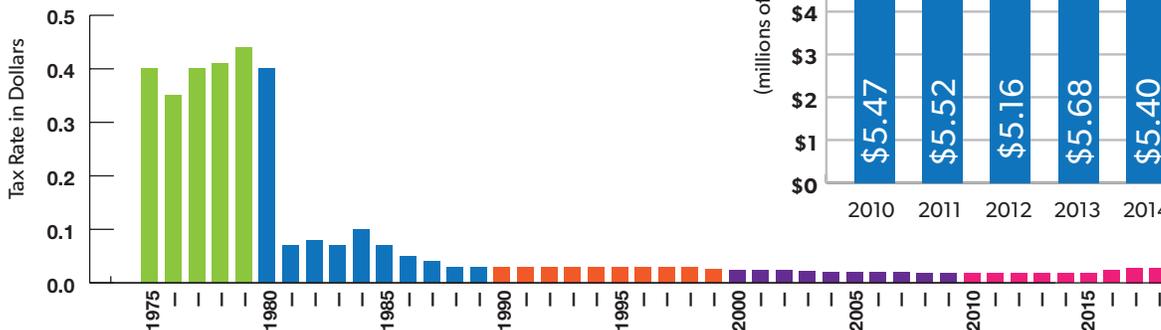
Over the past 6-7 years, as the drought worsened, the District’s financial reserves showed a structural deficit, primarily because rapidly escalating State Water Project costs are fixed costs, regardless of our annual water allocation from the State and resulting water “sales” to member cities.

In recent years, the District reduced discretionary expenses and implemented two revenue adjustments to address the structural deficit. First, the District adjusted its water rate for member cities in 2015 from \$130 per acre-foot (AF) (which it had been since 1989) to \$145/AF, and began a three-year rate adjustment that will move our rate to \$200/AF by 2018-2019. Second, the Board voted in June 2017 to increase the property tax rate from .023 to .030 cents per 100 dollar assessed value throughout its service area, effective in late 2017.

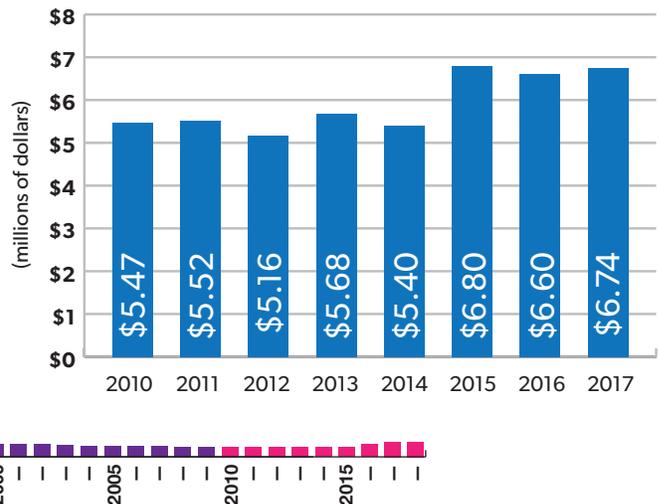
### Continuation of Lowest Wholesale Water Rates

The District’s wholesale replenishment rate of \$200 per acre-foot remains extremely fair and competitive and is the lowest in the region. As we witnessed in 2014 with passage of the \$7.5 billion Water Bond, and the public’s positive response to mandatory water use restrictions in 2015, stakeholders are supportive of prudent investments in water infrastructure that make our water supply more resilient and sustainable.

Consistently Low Property Tax Rate



Annual State Water Project Fixed Costs



## WATER CONSERVATION AND PUBLIC EDUCATION HIGHLIGHTS

In August 2018, the Board of Directors issued a Resolution re-committing the District to both strategic water management and conservation. In addition, we're providing increased financial resources to promote partnerships with our member cities for public outreach and conservation education. Banners and other communication materials with the "CONSERVE WATER" message featured below are being utilized throughout our service area.



### Educational Website – [www.sgvmd.org](http://www.sgvmd.org)

Please check our website for water saving tips, rebates, grant program guidelines, educational videos, downloadable information for teachers and schools, water-related news and legislation, and more.

### 2018 San Gabriel Valley Water Forum – “Drought and Floods: A Balanced Response”



The District pioneered the first San Gabriel Valley Water Forum in 2012. The 2018 Forum was attended by more than 225 stakeholders. Please visit the Forum's website ([www.sgvwaterforum.com](http://www.sgvwaterforum.com)) to review the Meeting's agenda, photos and panelist presentations. NBC4's Patrick Healy moderated the 2018 Water Forum. Continuing Education Contact Hour credits were provided to attendees for the first time.

2018  
SAN GABRIEL VALLEY  
WATER FORUM

### Federal, State and Local Government Outreach

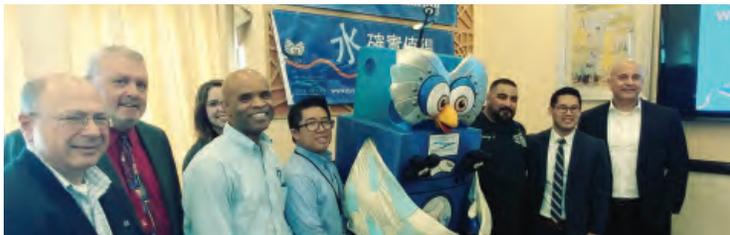
Water-related legislation, ordinances and ballot measures are becoming more common each year. Thus, the District's government relations program is an important means of creating ongoing dialogue between our elected officials, District representatives and stakeholders.

Board President Thomas Wong and General Manager Darin Kasamoto met with legislators to update them on District activities. Meetings were held (left to right): Assembly Member Chris Holden, Assembly Member Blanca Rubio, and Senator Ed Hernandez. Meetings were also held with Assembly Member Ed Chau, Senator Anthony Portantino, and staff of Speaker Anthony Rendon.



### Speakers' Bureau Targeted to Community, Ethnic and Media Audiences

The District provides an ongoing Speakers' Bureau program featuring water supply, water quality and water conservation information. Our annual "Asian Media Briefing," held in conjunction with the cities of Alhambra and Monterey Park, is pictured below.



### Expanded Rebate Program and "Advanced" Water Saving Tips Brochure

In FY 2017-2018, the District created a new water conservation brochure for residents and managers/owners of apartment buildings, translated into Chinese and Spanish. We also funded over 750 rebates for water-saving equipment. Visit our website for more information.



### Youth, School and Community Outreach Programs

**Opportunities for Water Leadership (O.W.L.) Grant Program** – The O.W.L. grant program rewards creativity and innovation with grants ranging from \$200-\$2,000. Eight grants were issued in the 2017-2018 fiscal year and are summarized on the back cover of this Annual Report.

**Home Water Survey** – More than a dozen elementary schools and 3,000 students in our service area participate in our annual "learn-by-doing" home water "audit," whereby students, parents and teachers evaluate water saving opportunities at each student's home. As one of the District's longest-tenured programs, nearly every graduating student in our service area has benefited from participation.



Opportunities for Water Leadership (O.W.L.) Grant Program



**H<sub>2</sub>Owl Mascot** – as our ambassador and water conservation guru, H<sub>2</sub>Owl is a fixture at community and school events, concerts, Earth Day events, libraries and parks throughout our service area.

Left to right is City of Azusa Summer Concerts in the Park, Sierra Madre, Elementary PTA awarded OWL grant for school landscaping, Monterey Park 2018 Earth Day Festival, and City of Alhambra 2018 Earth Day Festival.



# OPERATIONAL OVERVIEW

## Delivering Supplemental Water to the San Gabriel Valley

The San Gabriel Valley Municipal Water District was approved in 1959 by voters in Alhambra, Azusa, Monterey Park and Sierra Madre to help those cities meet their long-term water needs. The District's Devil Canyon-Azusa Pipeline delivers water from northern California via the State Water Project to the Main San Gabriel Basin to replenish the groundwater underlying our communities. This thoughtfully planned and engineered system is maintained and operated by Water District personnel 365 days a year. The District entered into a contract with the State of California Department of Water Resources in 1962 for the delivery of water each year from the State Water Project. Today the District is one of 29 State Water Contractors who obtain water from the vast State Water Project and who pay for retirement of the bond used to construct it, as well as its operation and maintenance. Starting in 1975 and continuing today, the District has been importing water from northern California to replenish groundwater supplies in the San Gabriel Basin.

### Spreading Grounds

Spreading grounds are operated and maintained by the Los Angeles County Department of Public Works. Water from our pipeline is delivered into spreading grounds where it percolates to recharge underground aquifers.



### Operation Center

The Operation Center is located at District headquarters. The state-of-the-art computerized Supervisory Control and Data Acquisition system (SCADA) controls and monitors the pipeline and pressure reducing stations.



### Green Power/Hydroelectric Generator

A turbine generator, powered by water flowing in the pipeline, creates electricity. Built in 1985, this generator has the potential to produce enough electricity for over 500 homes annually. The revenue helps to offset some of our operating costs.



### State Water Project (California Aqueduct)

Water for the Main San Gabriel Basin originates from the State Water Project, also known as the California Aqueduct. Pumps and gravity help move the water from northern California to our Basin.



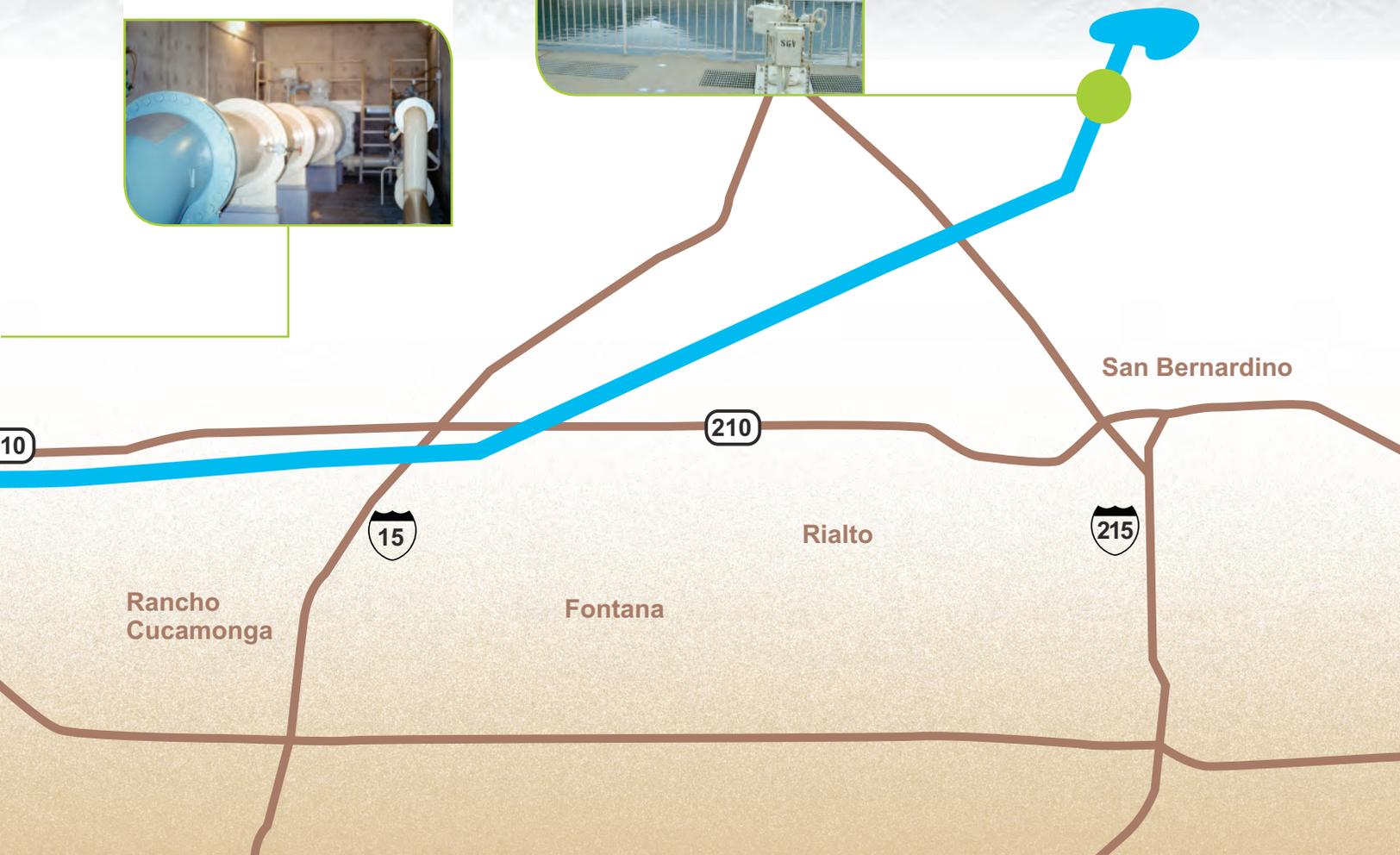
### Devil Canyon/Power Plant

Water coming from the State Water Project (California Aqueduct) powers turbines in the Devil Canyon Power Plant near Lake Silverwood and then enters the pipeline through the slidegate.



### Flow Control Facilities

As water flows from the State Water Project to the spreading grounds, the water flow and pressure are controlled at pressure-reducing stations located in Glendora, La Verne and Fontana.



# O.W.L. COMMUNITY GRANT PROGRAM

## Opportunities for Water Leadership



The *O.W.L. Community Grant Program* began in 2017. We invite school, community or business organizations in our member cities of Alhambra, Azusa, Monterey Park and Sierra Madre to create educational “water-wise,” projects. We’ll help with funding if you identify partners, organize activities, manage the project’s completion and share its results locally. Grants range from \$200-\$2,000. Details about the program, including an online application form, are available on the District’s website:

[www.sgvmwd.org/education/owl\\_program](http://www.sgvmwd.org/education/owl_program)

Projects	Calendar Year	Youth Conservation	Business Conservation	Community Conservation
<b>Alhambra</b>				
<b>Baldwin Elementary School</b> - conducted “Earth Week” educational field trip, assembly and posters; maintain and enhance the School’s native garden; informed students about water treatment procedures and facilities; demonstrated how rain barrels help capture and reuse stormwater.	2018	💧		
<b>Alhambra High School</b> - provided information about the value of water to our health and economies; informed students about water shortages and water quality challenges in foreign countries and in the San Gabriel Valley.	2018	💧		
<b>Alhambra Chamber of Commerce</b> - created awareness of attractive waterwise/drought tolerant landscaping; educated residents, commercial businesses and apartment owners about saving water and money at commercial locations; co-funded awards, lawn signs and recognition event for Alhambra Beautiful.	2018		💧	💧
<b>Azusa</b>				
<b>Foothill Elementary</b> - on a campus featuring broken or non-functional water fountains, provided students with safe, filtered and fresh drinking water by installing a refilling station, and educated students about recycling water and reusable containers.	2018	💧		
<b>Monterey Park</b>				
<b>Hillcrest Elementary</b> - created a water-wise and sustainable “ZEN” garden that can be used as part of the school’s learning environment; assisted students to research, plan and design the garden; incorporated sustainable best practices such as conservation, stormwater capture, solar power and recycling.	2018	💧		
<b>Planet Save</b> - helped build a drone that can collect accurate data and assist in determining water-wise irrigation plans and optimizing water resource management; developed plant health maps and terrain maps to deal with soil health and erosion challenges.	2018			💧
<b>Sierra Madre</b>				
<b>Sierra Madre Elementary School PTA</b> - maintained and enhanced the existing native garden, provide and help install rain barrels to capture stormwater, and supported the School’s annual Native Garden/Earth Day Festival.	2018	💧		
<b>Landscape Integrity Films</b> - developed, distributed and posted video tutorials/educational films and create a speaker series about native plant vegetation, water-wise landscaping, water conservation and stormwater capture.	2018			💧