



Water Quality Authority

# ANNUAL 2019-2020 REPORT

San Gabriel Basin Water Quality Authority





## who we are

Over its 27-year history, the San Gabriel Basin Water Quality Authority (WQA) has worked with its partners to clean up 1.7 million acre-feet of contaminated groundwater – enough to meet the water needs of Basin customers for almost six years.

## what we do

**COORDINATE** Groundwater Cleanup

**INFORM** the Public

**CHARACTERIZE** Groundwater Contamination

**ASSIST** Cooperating Respondents

**PREVENT** or Minimize Migration of Contamination

**REMOVE** Contamination Quickly and Efficiently

**PROTECT** Groundwater Resources

**FUND** WQA Projects and Programs with Outside Funding Sources

## staff

**RANDY SCHOELLERMAN, P.E.**  
Executive Director

**DAN COLBY**  
Assistant Executive Director/  
Senior Project Manager

**MARY SAENZ** Director of Finance

**STEPHANIE A. MORENO**  
Executive Assistant/  
Public Outreach Coordinator

**MICHELLE SANCHEZ**  
Administrative/Accounting Assistant

**RICHARD PADILLA** Legal Counsel

# MESSAGE FROM OUR NEW EXECUTIVE DIRECTOR

**T**he San Gabriel Basin Water Quality Authority's fiscal year ended with the retirement of our longtime Executive Director Kenneth R. "Ken" Manning. Upon his exit after nine years in the position, Ken reflected upon the accomplishments of the Authority, saying:

*"It has been an honor to lead such an important organization. When the San Gabriel Basin Water Quality Authority was formed in 1993, there was little knowledge about how to treat the groundwater and how to pay for it. Today, we have a program that is really the envy of many areas around the country."*



He is right. We have gone from almost nothing to something quite extraordinary. I've seen it first hand as an engineer and leader with WQA since close to its inception 27 years ago. I have also witnessed the great resiliency and adaptability of our staff and our industry during the novel coronavirus. We went from offices to home offices without missing a beat and made sure those operators working at the treatment facilities stayed safe and well. We have met many challenges on the path to securing a clean water source for the region and we know there is still a lot of work to be done. Our end goal is the same: To complete the cleanup of the San Gabriel Basin Superfund sites. However, our priorities have shifted.

## **From Building Plants to Running Them**

There are now 32 active groundwater treatment plants in the San Gabriel Basin. The WQA has coordinated cleanup efforts that have resulted in the treatment of more than 1.7 million acre-feet of water. That's equivalent to a full year of water for 8.5 million residents. We are at the end point of building new treatment plants and getting the remedies in place. We turned our strategy a few years ago from capital funding to keeping the treatment and remediation going. We will continue upgrading technology at treatment plants and keep them running efficiently.

## **Finding Sources of Contamination**

Even though most of the larger remedies throughout the basin are in place, there remains hundreds of individual sites that require further investigation to rule them out as continued sources of groundwater contamination. Our Whitmore Street Groundwater Remediation Facility is one location where we are using Hydropunch wells to investigate multiple sites to determine a contamination source. We have been awarded two state Prop. 1 grants for this type of project in the South El Monte area.

## **Securing State and Federal Funding**

Our ability to coordinate cleanup efforts in the San Gabriel Basin is dependent upon the support of state and federal funding. More than \$951 million has been raised, however an additional \$517 million is needed. We will be expanding our outreach and education efforts as well as our social media presence. We will highlight our support of many agencies in the cleanup and the 1.4 million people we ultimately serve. Finding and securing funds elsewhere will lessen the burden on ratepayers in the San Gabriel Valley.

A handwritten signature in black ink that reads "Randy Schoellerman". The signature is fluid and cursive, written in a professional style.

**Randy Schoellerman, P.E.**  
Executive Director



# Securing Grants to Help Fund the Clean Up

**T**he San Gabriel Basin is one of the most contaminated in the nation. It is also a primary source of drinking water for more than 1.4 million people. WQA-sponsored projects have removed nearly 94 tons of contaminants from the Basin since the state legislature established the WQA in 1993. WQA has worked with the responsible parties, water agencies, state and federal authorities and the public to build 32 treatment facilities operating throughout the Basin. With much of the infrastructure built, WQA has turned its focus to site investigation and remediation as well as the long-term operation of facilities. In keeping with the goal to minimize the economic impact on the public, WQA continues to seek State grants and Federal Funds which would be utilized as State grant match requirements.

**State Proposition 1:** This proposition authorizes \$7.545 billion in general obligation bonds to fund ecosystems and watershed protection and restoration, water supply infrastructure projects, including surface and groundwater storage, and drinking water protection. Of that total, about \$720 million is designated to clean up groundwater for public consumption. The Whitmore Street Groundwater Remediation Facility site investigation was expanded thanks to a second Prop. 1 grant. The project involves using Hydropunch wells to investigate an area between two known areas of contamination. The data collected will help define the source of contamination and will be used to enhance current treatment facilities at the site. Another Prop. 1 grant is helping to fund the investigation of 12 high priority sites with known contamination near small businesses in the South El Monte Operable Unit. To date, WQA has received \$2.3M in Prop. 1 funds.

**State Proposition 68:** This measure is a \$4.1 billion bond for parks and habitat restoration as well as flood protection and groundwater cleanup. About \$74 million was made available to operate existing groundwater remediation projects that prevent or reduce contamination of groundwater that serves as a source for drinking water. WQA has applied for a \$35 million grant for 21 treatment facilities in the Basin. If approved, the grant will cover the treatment and remediation costs of those facilities for about five years. It will be the largest state grant ever received by WQA.



# Our History in San Gabriel Basin

After severe groundwater contamination was detected in the San Gabriel Basin and the EPA designated four Superfund sites in the area, a plan of action was needed. The WQA has coordinated the cleanup efforts since its creation more than 27 years ago. As a result, 1.7 million acre-feet of water has been treated, thus making the region less dependent upon imported water.

- 2020** WQA secures additional \$2.2M in Prop. 1 funding.
- 2019** Construction begins on the first reverse osmosis treatment system in the San Gabriel Valley.
- 2018** WQA advocates for the passage of Proposition 68.
- 2014** WQA acquires the General Discharge Permit needed to continue the cleanup.
- 2012** WQA secures \$10 million in state funding for four projects.
- 2009** WQA obtains additional \$50 million for WQA Restoration Fund. H.R. 910, which established the San Gabriel Basin Restoration Fund to facilitate groundwater cleanup, became Public Law 106-554.
- 2002** The first 15-year BPOU project agreement is executed.
- 1999** WQA spearheads legislation for \$75 million in federal funding.
- 1995** WQA's first treatment facility is completed in Monrovia.
- 1994** WQA adopts a consensus approach to integrating water supply and cleanup programs.
- 1993** WQA is established by the California State legislature.
- 1983** The US Environmental Protection Agency (USEPA) declares four Superfund sites in portions of the Main San Gabriel Basin.
- 1979** Groundwater contamination is first detected in the San Gabriel Groundwater Basin.

## cleanup by the numbers

**1,733,968**

Acre-feet of groundwater treated in San Gabriel Basin as of June 30, 2020.

**325,851**

The amount of water in gallons in just one acre-foot.

**6,700**

The number of times you could fill the Rose Bowl with the 1.7 million acre-feet of treated water.

**8,500,000**

The number of residents supplied water for a full year with the 1.7 million acre-feet of treated water.

**188,215**

The amount in pounds of contaminants removed as of June 30, 2020.

**21**

The number of elephants equal to the weight of the contaminants removed.

**27**

Years WQA has been coordinating the cleanup effort.

**32**

Active groundwater treatment facilities in the San Gabriel Basin.

**2**

New treatment plants are under construction.

# Technology Upgrades and Expanded Treatment Areas Propel Cleanup Forward

**T**he WQA coordinates groundwater cleanup across six operable units in the San Gabriel Basin. These six areas are: Area Three Operable Unit (ATOU); Baldwin Park Operable Unit (BPOU); El Monte Operable Unit (EMOU); Puente Valley Operable Unit (PVOU); South El Monte Operable Unit (SEMOU); and Whittier Narrows Operable Unit (WNOU). The largest in geographic size and most significant in terms of the severity of contamination is the BPOU. Progress continues in all of the operable units with significant new developments in the PVOU and ATOU.

### PUENTE VALLEY OPERABLE UNIT

#### Treatment Plant Construction Continues

Construction activities on the intermediate zone remedy ramped up in 2019. All treatment equipment has been positioned on site. The influent pipeline from the existing off-site wells to the treatment plant has been installed. Startup testing is scheduled to begin in late 2020. La Puente Valley County Water District will operate and maintain the plant. Northrop Grumman Corporation is paying for the treatment facility that will also clean up naturally occurring contaminants to make the water drinkable, in addition WQA has contributed approximately \$5.5M of federal funding.

As of June 30, 2020, other PVOU facilities have treated more than 96,884 acre-feet of water and removed approximately 5,176 lbs. of VOCs.



#### UTC Engages in Shallow Remediation

United Technologies Corporation (UTC) continues to make progress on the shallow zone north remedy. Activities include the development of work plans necessary for the installation of additional monitoring wells and the preparation of an updated discharge options study to accommodate re-injection of the treated groundwater. WQA will continue to help facilitate and coordinate with state and federal agencies to ensure shallow zone remediate stays on track.



### AREA THREE OPERABLE UNIT

#### Cleanup Continues

The City of South Pasadena and City of Alhambra continue to operate their treatment facilities in the ATOU.

The USEPA installed additional monitoring wells in Alhambra to further characterize groundwater contamination in the area. As of June 30, 2020, the ATOU facilities have treated more than 36,299 acre-feet of water and removed approximately 1,290 lbs. of VOCs.





## BALDWIN PARK OPERABLE UNIT

### Tremendous Progress Made in Cleanup

More than three years into a historic 10-year agreement to clean up contaminants in the BPOU, WQA reports continued success. The five treatment plants continue to operate. The San Gabriel Valley Water Company began construction of its new 3rd generation advanced oxidation (AO) treatment equipment utilizing ultra-violet (UV) light technology at its Baldwin Park Plant B6. The new treatment equipment is replacing outdated AO treatment. The cost of the upgrade is being partially funded via a State Water Resources Control Board Proposition 1 grant.

The BPOU facilities have treated 917,838 acre-feet of water and removed approximately 110,183 lbs. of VOCs as of June 30, 2020.

## EL MONTE OPERABLE UNIT

### Enhancements Underway

The parties responsible for westside shallow zone remedy have constructed additional extraction wells to enhance containment of the contaminant plume and are working closely with USEPA to ensure compliance. The work party is also investigating solutions to enhance the intermediate zone remedy to ensure compliance.

The City of El Monte continues to operate a series of wells and treatment facilities built with the assistance of WQA federal funds. It is treating water from El Monte and Rosemead.

The EMOU facilities have treated 71,707 acre-feet of water as of June 30, 2020 and removed approximately 2,430 lbs. of VOCs.

## SOUTH EL MONTE OPERABLE UNIT

### New Site Investigation

In 2019, WQA used a Proposition 1 grant to conduct expanded site investigation activities upgradient of the Whitmore Street Groundwater Remediation Facility. Based on the results, WQA was successful in amending its current Prop. 1 grant by an additional \$200,000 for more site investigation activities.

In addition, in 2020, WQA was awarded another Prop. 1 grant in the amount of \$2,000,000 to conduct regional site investigations within the SEMOU at 12 high priority properties.

As of June 30, 2020, the SEMOU facilities have treated more than 222,367 acre-feet and removed approximately 27,157 lbs. of VOCs.

## WHITTIER NARROWS OPERABLE UNIT

### Public/Private Partnerships

The Department of Toxic Substances Control continues progress on the required infrastructure to return the WNOU intermediate zone remedy back into a potable water supply project. The project is funded via public and private partnerships included Proposition 1 grant funds.

The WNOU facilities have treated 89,020 acre-feet of water and removed approximately 3,470 lbs. of VOCs as of June 30, 2020.



# COMMUNICATION AND OUTREACH



## Awareness Efforts Garner National Recognition

**T**he National Groundwater Association (NGWA) presented an Outstanding Groundwater Project Award in Groundwater Awareness to the San Gabriel Basin Water Quality Authority (WQA) in recognition of its public outreach and educational programs.

The WQA was one of three applicants for the 2019 awareness award and the sole recipient. NGWA gave out 16 awards in various categories. The award recognizes the WQA-sponsored EcoVoices program, which has taught 3,000 students annually for the past

*"The Awards Committee was particularly impressed with the San Gabriel Basin Water Quality Authority's creative approach to implementing a dynamic water quality education curriculum that has reached thousands of children and brought awareness to the public of water quantity and quality issues in the San Gabriel Valley of California."*

*David Lipson, NGWA Awards Committee Chair*

three years about the importance of clean, local water. The award also was given to WQA for its public outreach, which includes informative articles published in their constituent area.

NGWA is a nationwide community of groundwater professionals working together to advance groundwater knowledge and the success of its members through education and outreach; advocacy; cooperation and information exchange; and enhancement of professional practices.

The EcoVoices curriculum, designed and implemented by Dr. Richard Shope of the World Space Foundation, focuses on the water cycle, the local watershed, water quality, the role

of water agencies, and water conservation. The EcoVoices Expeditions program has been a tremendously successful and creative avenue for the San Gabriel Basin

Water Quality Authority to spread groundwater knowledge and awareness throughout its service area. This year-round program is creating the next generation of environmental stewards and water-quality scientists while spreading the word about our groundwater supply to all those around them in the community.



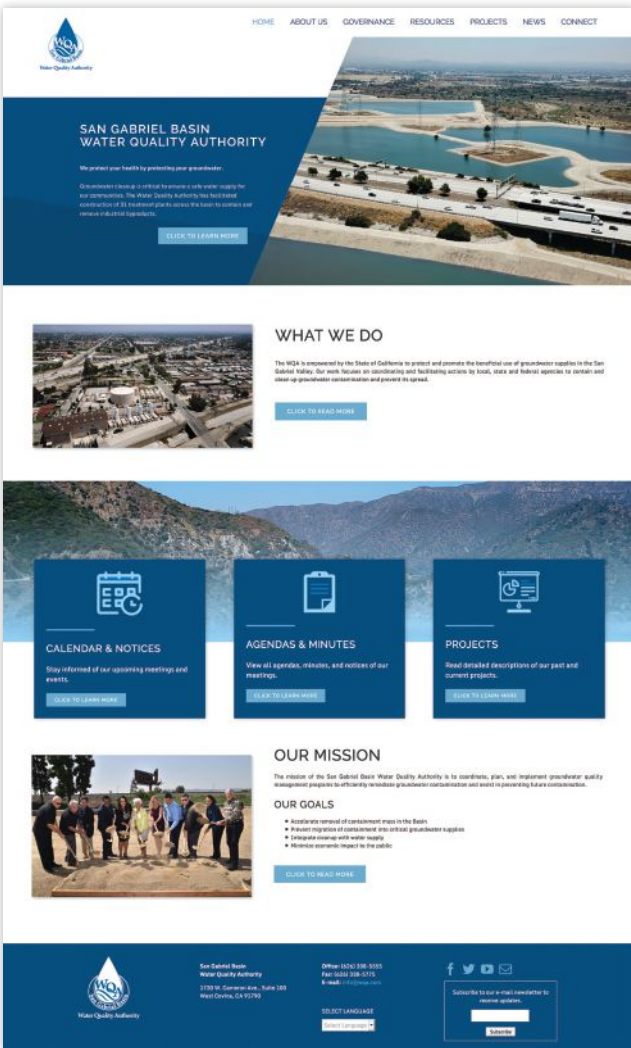


## Updating and Expanding Our Online Presence

The WQA website has a new look. The updated site features new images and information in an easy-to-navigate format. It also includes project updates, news features and videos. The web site is an important avenue for communication and education of both the public and legislators. The next step is to expand the Water Quality Authority's social media presence on such platforms as Twitter, Facebook and Instagram. Engagement in up-to-date and regular online activities will help to further establish the necessity of the WQA and highlight sponsored accomplishments. This, in turn, aids efforts to receive more state and federal funding.

"In the eyes of many, we are one agency. The reality is that we support many agencies that serve 1.4 million people in the San Gabriel Valley. This is the message we need to emphasize to receive funding."

*Randy Schoellerman, WQA Executive Director*



WQA also informs the general public about the ongoing cleanup effort through a variety of means throughout the year:

- Advertorials on WQA progress and happenings are distributed via special sections in area newspapers that reach more than 200,000 readers.
- Spanish and Chinese advertorials are also run in various newspapers.
- WQA Executive Director and Main San Gabriel Basin Watermaster Executive Officer jointly participate in Chinese language television interviews.
- Joint sponsorship of the San Gabriel Valley Water Forum.



### Legislators Express Support for Water Quality Authority Efforts

Congressman Cisneros and State Sen. Archuleta tour San Gabriel Basin groundwater cleanup facility

By Elizabeth Bender

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# FUNDING SOURCES

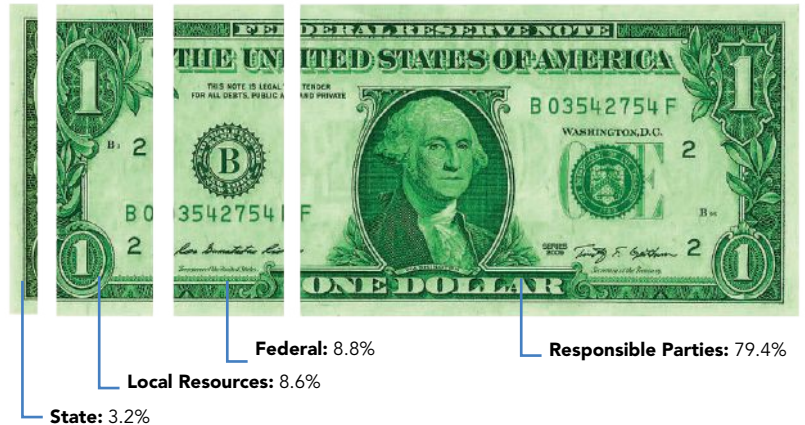
## Long-Term Funding Challenges Continue

To date, WQA has raised \$951 million toward the cleanup effort. The money has primarily covered facility construction, which represents only a fraction of the overall funding requirements. Long-term costs for treatment and remediation account for 75 percent of the total Basin cleanup cost.

WQA estimates another \$500 million is needed to complete its mission as an organization.

Congress has authorized \$125 million to WQA but has not appropriated the funds for years. So far, the WQA has been given \$70.5 million dollars of the \$125 million authorized. The remaining \$54.5 million is needed to complete the task of operating existing facilities as well as cleaning up the many sites that have been identified as potential pollution sites in the valley. Without federal funding soon, some of the groundwater cleanup projects in the San Gabriel Valley could be forced to shut down, which would jeopardize efforts to contain the contamination plume and reduce a much-needed water supply.

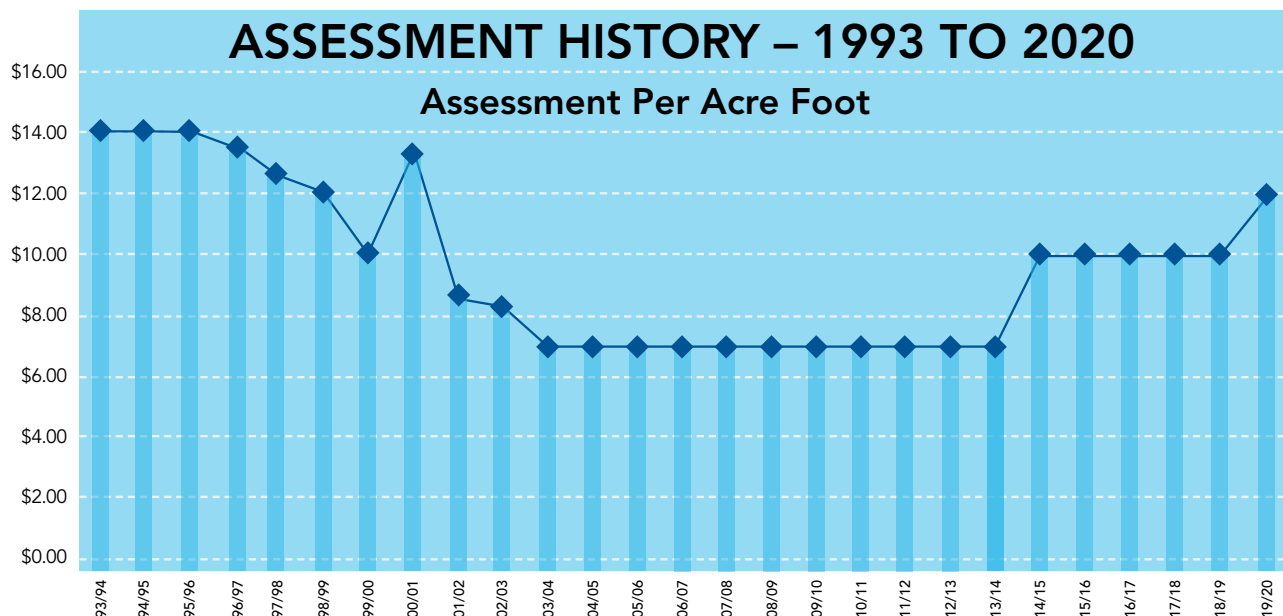
### FUNDING SOURCES TO DATE Feb 2020



## An Increased Use of Assessments

The lack of Federal funding to meet State Proposition match requirements, led the WQA board to raise the prescriptive pumping rights assessment by \$2 beginning in 2019. The current assessment is \$12 per acre-foot of pumping right. The WQA Enabling Act – Section 605 grants the ability to impose an annual pumping right assessment on prescriptive pumping rights. There are 197,610 acre feet of prescriptive pumping rights in the San Gabriel Basin. The assessment had been held at \$10 for the previous five years.

WQA anticipates using the assessment monies for several projects, including the Whitmore Street Groundwater Remediation Facility operations. Many of these are site investigation and remediation projects for which Prop. 1 funds have been secured, but require matching funds. Implementing these projects may require additional assessments ranging from \$320,000 to \$575,000 per year, or \$2.2 million for the five years.





# State Grants Keep Work Going

State Propositions 1 and 68 are providing critically needed funding during a long period in which federal funding is unobtainable. WQA works closely with local agencies to apply for grants as funds are released.

**State Proposition 1:** This proposition authorizes \$7.545 billion in general obligation bonds to fund ecosystems and watershed protection and restoration, water supply infrastructure projects, including surface and groundwater storage, and drinking water protection. Of that total, about \$720 million is designated to clean up groundwater for public consumption.

Prop. 1 grants have funded the San Gabriel Valley Water Company (SGVWC) Plant B6 Ultraviolet Light Flex Modular Demonstration Project. The SGVWC received a \$1.1 million grant for this project. A \$7.1 million grant was received by the Department of Toxic Substances Control for an approximately 7,000-foot pipeline and construction of a booster station in the Whittier Narrows Operable Unit. Two Prop. 1 grants have been secured for the Whitmore Street groundwater site investigation area. Lastly, another Prop. 1 grant is helping to fund the investigation of 12 high priority sites near small businesses in the SEMOU. To date, WQA has received \$2.3 million Prop. 1 funds

**State Proposition 68:** This measure is a \$4.1 billion bond for parks and habitat restoration as well as flood protection and groundwater cleanup. About \$80 million will be available to operate groundwater remediation projects. WQA has applied for a \$35 million grant to operate 21 treatment facilities in the Basin. If approved, the grant will cover the treatment and remediation costs of those facilities for about five years. It will be the largest state grant ever received by WQA.







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Board Member



Michael Whitehead  
Board Member



Randy Schoellerman  
Executive Director