



Water Quality Authority

ANNUAL ²⁰²²⁻²⁰²³ REPORT

San Gabriel Basin Water Quality Authority



Irwindale Spreading Basin



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DIGITAL EDITION



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who we are

The local agency responsible for overseeing the cleanup and restoration of the San Gabriel Groundwater Basin.

what we do

COORDINATE Groundwater Cleanup

INFORM the Public

ASSIST Cooperating Respondents

PREVENT or Minimize Migration of Contamination

PROTECT Groundwater Resources by Removing Contamination Quickly and Efficiently

INTEGRATE Cleanup with Water Supply

MINIMIZE Economic Impact to the Public

FUND WQA Projects and Programs with Outside Funding Sources

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A MESSAGE FROM OUR EXECUTIVE DIRECTOR

This past year was marked with a dozen atmospheric rivers that brought record rain and snowfall to areas around the state, including the San Gabriel Basin. The welcome rainfall helped to relieve some of the drought concerns and raised water levels in wells across the valley. We observed wells used for remediation that were dry become filled and able to be used once again in the battle to clean up the Basin. And a new front of that battle has emerged over the years with emerging contaminants known as Per- and polyfluoroalkyl substances (PFAS) widely used longlasting chemicals that break down very slowly. In early 2023, the U.S. EPA announced the proposed National Primary Drinking Water Regulation, which would establish legally enforceable levels called Maximum Contaminant Levels for six PFAS compounds in drinking water.



In March 2023, the WQA filed a lawsuit against 3M, DuPont and other companies seeking to recover the costs of cleaning up PFAS from the Main San Gabriel Basin. It is part of our mission to pursue responsible parties for the cost of the cleanup and PFAS has been detected in numerous wells. By joining hundreds of other cities, states and water agencies in filing suit against these companies, we are fulfilling our mandated role.

For a second consecutive year, we received \$10 million in federal funding thanks to the efforts of our U.S. Representatives and Senators. The federal funds were appropriated into the San Gabriel Basin Restoration Fund (Restoration Fund) following more than a decade without federal funds. Congress has authorized \$125 million for the Restoration Fund, of which \$94.5 million has been appropriated and allocated to cleanup projects by the WQA.

Finally, we were grateful to have the support of local stakeholders, including the San Gabriel Valley Water Association, and Assemblywoman Blanca E. Rubio who authored AB 2163, which extended the sunset date of the Authority to July 1, 2050. Our coordination of this cleanup has made a difference in protecting and restoring this vital groundwater basin and our efforts will continue to ensure a clean, safe and reliable water supply.

A handwritten signature in black ink that reads "Randy Schoellerman".

Randy Schoellerman, P.E.
Executive Director



Advocating for More Funding to Cover Cost of New Contaminants



"The WQA remains committed to holding those responsible for the contamination accountable. The WQA will continue to ensure safe, reliable drinking water for the residents of the San Gabriel Valley."

Mark Paulson
WQA Board President

The 2022-23 fiscal year was marked by forward progress for the WQA with additional funding, a renewed sunset date, and efforts to recover PFAS (Per-and Polyfluorinated Substances) cleanup costs.

For a second consecutive year, the WQA received a \$10 million federal Restoration Fund allocation. The funds help to pay for new and existing treatment facilities and contaminant investigations. Congress has authorized \$125 million for the Restoration Fund, of which \$94.5 million has been appropriated and allocated to cleanup projects by the WQA.

The WQA also received additional Prop 68 funding. Ultimately Prop 68 made \$80M available for certain treatment and remediation projects across the state. After applying for the funding, the WQA was awarded \$35M. However, additional Prop 68 funding remained unallocated and WQA was awarded an additional \$17.4M. The combined \$52.4M awarded will reimburse water purveyors the cost of operating the 21 eligible treatment plants across the valley for over seven years.

After previously extending the life of the WQA to 2030, the California State Legislature approved AB 2163 to extend the Authority's life to July 1, 2050. "This legislation will allow the San Gabriel Basin Water Quality Authority to continue removing harmful contaminants from our local groundwater basin," said State Assemblymember Blanca E. Rubio (48th District), who authored the bill. "This work allows local water producers to provide safe and reliable water to our community."

The funding and time will be needed as the WQA investigates emerging contaminants to comply with the proposed National Primary Drinking Water Regulation, which would establish Maximum Contaminant Levels for six PFAS compounds in drinking water. PFAS, considered "forever" chemicals because they remain in the environment, were compounds produced mainly by the 3M and DuPont companies and used by them and a variety of other manufacturers to produce everything from Teflon for pots and pans to Scotchgard for fabric protection.

In March 2023, the WQA filed a lawsuit against 3M, DuPont and other companies in an effort to recover the costs of PFAS cleanup in the San Gabriel Basin.

"We are taking this action so that San Gabriel Valley residents are not burdened with the additional cost of the PFAS cleanup," said WQA Board Chairman Mark Paulson. "The WQA remains committed to holding those responsible for the contamination accountable. The WQA will continue to ensure safe, reliable drinking water for the residents of the San Gabriel Valley."

The WQA lawsuit is one of hundreds of similar lawsuits filed by cities, states, water agencies and others in the last several years. It alleges the defendants knowingly contaminated drinking water over a period of years in the Basin (and across the country) as a result of the manufacture and use of a group of more than 4,000 synthetic harmful chemical compounds, collectively known as PFAS.



CLEANUP BY THE NUMBERS

1,982,727

Acre-feet of groundwater treated in San Gabriel Basin as of June 30, 2023.

325,851

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

7,657

The number of times you could fill the Rose Bowl with the 1.9 million acre-feet of treated water.

211,681

The amount in pounds of contaminants removed as of June 30, 2023.

23

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

30

Years WQA has been coordinating the cleanup effort.

32

Active groundwater treatment facilities in the San Gabriel Basin.

3

New treatment plants under construction.

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 30 years ago. As a result, 1.9 million acre-feet of water has been treated, thus making the region less dependent upon imported water.

2023 WQA Secures \$10M in Federal Funding for the San Gabriel Basin Restoration Fund for Fiscal Year 2023.

2022 WQA Secures \$10M for the San Gabriel Basin Restoration Fund and AB 2163 extends the WQA's sunset date to July 1, 2050.

2021 WQA Secures \$35M in Proposition 68 funding.

2020 WQA Secures \$2.2M in Proposition 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.

Record Rainfall Does Not Dampen Cleanup Efforts

The WQA coordinates groundwater cleanup across six operable units (OUs) 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). With a year of unprecedented rainfall, which resulted in a rebound of groundwater elevations from near historic lows, cleanup progress continues.

PUENTE VALLEY OPERABLE UNIT

Treatment Plant Testing Continues

Construction activities on the intermediate zone remedy finished in early 2023. Startup testing activities began in 2023. Several components of the required amended water supply permit have been submitted for review to state regulators. Northrop Grumman continues to make tremendous gains in construction activities associated with the shallow zone south remedy. All infrastructure is in place with startup activities to commence in the next fiscal year. La Puente Valley County Water District will operate the intermediate zone remedy treatment plant and distribute the treated water to its customers.

As of June 30, 2023, other PVOU facilities including San Gabriel Valley Water Company Plant's B7 and B11 have treated more than 99,137 acre-feet of water and removed approximately 5,373 lbs. of VOCs.



Facility Tour for EPA Region 9 Administrator, Martha Guzman Aceves and Supervisor Hilda Solis

Carrier Makes Strides in Shallow Zone North Remedy

Carrier is responsible for the shallow zone north remedy and continues to make progress. Activities include the installation of additional monitoring wells to delineate and characterize the current extent of the groundwater contamination and the rehabilitation of existing extraction wells. It is anticipated that Carrier will start the Remedial Design of the shallow zone north remedy in 2024. WQA will continue to help facilitate and coordinate with state and federal agencies to ensure the shallow zone remediation stays on track.



*South Pasadena
Wilson Treatment Facility*

AREA THREE OPERABLE UNIT

Treatment is Enhanced

The city of South Pasadena continues to operate its Wilson Treatment Facility and began operation of its Graves Treatment Facility. The City of Alhambra continues to operate its water treatment facilities. USEPA is finishing an investigation on the extent of groundwater contamination for Area 3. A report on the investigation will be published in 2024.

As of June 30, 2023, the ATOU facilities have treated more than 56,912 acre-feet of water and removed approximately 2,527 lbs. of VOCs.



BALDWIN PARK OPERABLE UNIT

Enhancements Continue

The five treatment plants continue to operate. San Gabriel Valley Water Company received approval of a more efficient 3rd generation advanced oxidation treatment equipment utilizing ultra-violet (UV) light technology at its Baldwin Park Plant B6 and began the second phase of the project. The second phase will consist of constructing an additional treatment train to destroy 1,4-Dioxane and NDMA. The cost of the project was funded via Proposition 1 funds and WQA federal funding. The BPOU facilities have treated 1,065,344 acre-feet of water and removed approximately 126,614 lbs. of VOCs as of June 30, 2023.

EL MONTE OPERABLE UNIT

Variable Flow Directions Dictate Enhancements

As a result of increased groundwater elevation, 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. Work is underway to design the required pipelines to convey the extracted water to the existing treatment facility. In addition, an EMOU stakeholder sub-group in conjunction with local regulators continues investigation activities to track the progress of site cleanup actions at known source properties within the OU. The City of El Monte continues to operate a series of wells and treatment facilities built with the assistance of WQA federal funds. The EMOU facilities have treated 81,675 acre-feet of water as of June 30, 2023, and removed approximately 2,823 lbs. of VOCs.

SOUTH EL MONTE OPERABLE UNIT

Expanded Treatment on the Horizon

As a result of WQA's Prop 1 Planning Grant, work to conduct expanded site investigation activities upgradient of the Whitmore Street Groundwater Remediation Facility (WSGRF), WQA was awarded a subsequent Prop 1 Implementation Grant to enhance current extraction in and around the WSGRF. In addition, WQA in partnership with the LA Regional Water Quality Control Board was awarded a separate Prop 1 Planning Grant to conduct regional site investigations within the SEMOU at 12 high priority properties. WQA has completed the investigation at the 11 sites. As of June 30, 2023, the SEMOU facilities have treated more than 264,375 acre-feet and removed approximately 32,033 lbs. of VOCs.

WHITTIER NARROWS OPERABLE UNIT

State Makes Progress

The Department of Toxic Substances Control (DTSC) continues progress on the required infrastructure to return the WNOU intermediate zone remedy back into a potable water supply project. DTSC, with the assistance of USEPA, secured additional funding for the construction of a required booster station that will ensure the remedy meets all extraction requirements. The WNOU facilities have treated 95,898 acre-feet of water and removed approximately 3,511 lbs. of VOCs as of June 30, 2023.



Keeping 32 treatment plants operational while also investigating new sites and addressing emerging contaminants, requires a dedicated staff of experts in their field. The San Gabriel Basin Water Quality Authority is sincerely grateful for the efforts of all the operators and staff members who ensure progress in the ongoing Basin cleanup.

Thank you to all!



FUNDING SOURCES

Money Well Spent

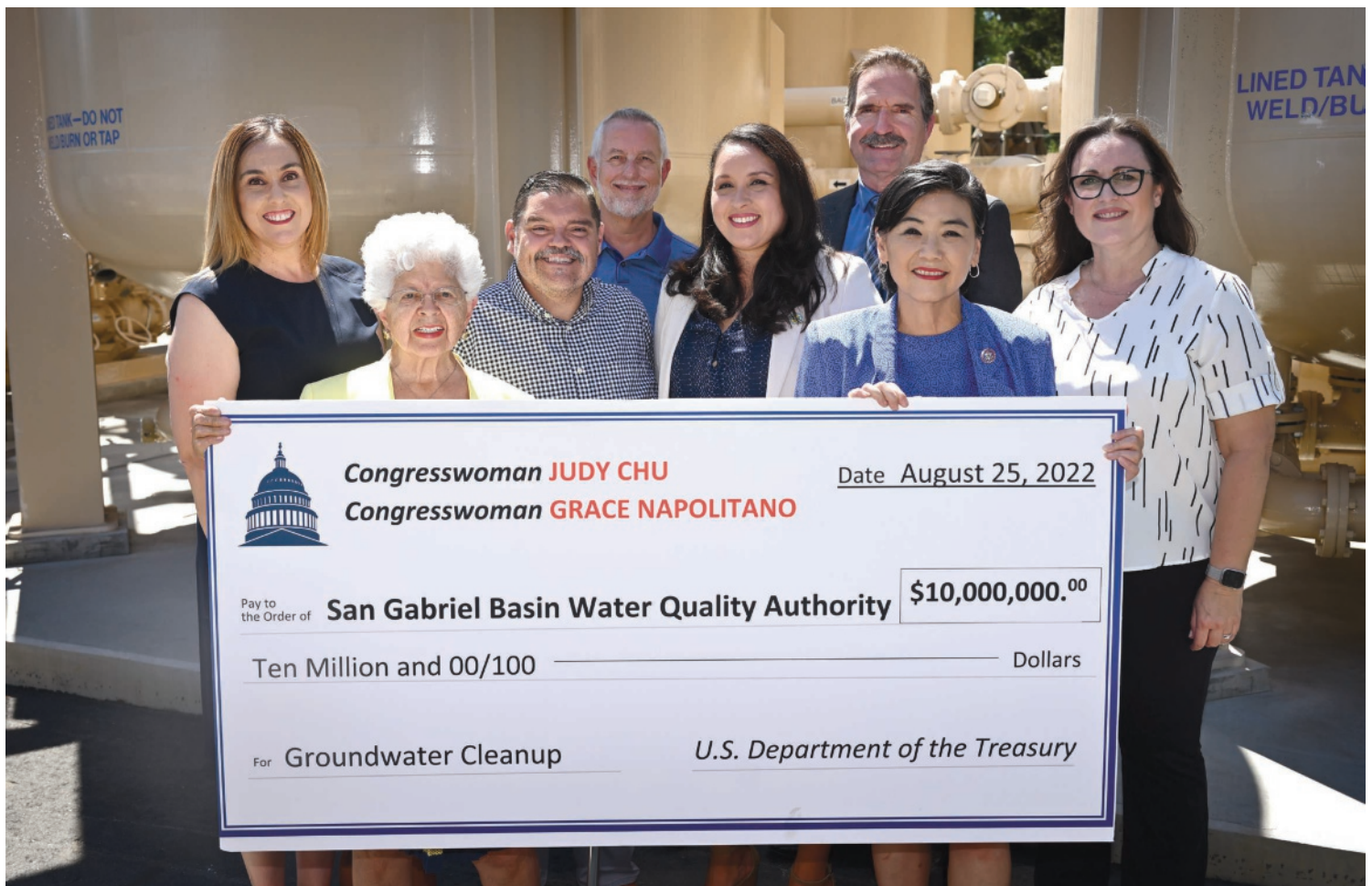
For a second consecutive year, Congress allocated \$10 million to the San Gabriel Basin Restoration Fund (Restoration Fund) following a prior decade without funding. The need for these funds was made apparent by the more than \$200 million in project requests received by the WQA.

The WQA awarded the federal monies to 17 diverse and vital projects that address a wide spectrum of contamination issues. The projects awarded federal funds include: five PFAS (Per- and Polyfluorinated Substances) treatment projects (\$7.6 million); four VOC treatment projects (\$2.2 million); five capital improvements to existing treatment facilities (\$4.8 million); one nitrate treatment project (\$1.3 million); and two treatment and remediation projects (\$2.5 million).

The WQA received 23 applications for a combined capital cost of \$201 million. The Restoration Fund, established in 2000 and amended in 2007, authorizes \$125 million to WQA to facilitate groundwater cleanup. To date, \$94.5 million has been appropriated and allocated. The WQA also received an additional \$17.4 million in State Proposition 68 funds this fiscal year.

While 70% of our cleanup funds to date have come from the responsible parties, the state and federal funds are needed to supplement the cleanup costs and keep local rates low. Additionally, the Restoration Fund dollars are necessary for the cleanup of emerging contaminants of concern, orphan sites, and non-Record of Decision projects where there is no responsible party (RP) identified or the RPs don't have the resources to do the work.

We are grateful to our federal and state legislators, including Congresswomen Grace Napolitano and Judy Chu (shown holding check below), Senator Alex Padilla, and the late Senator Dianne Feinstein, for their outstanding support.



Educating the Next Generation

Dr. Richard Shope, founder of the award-winning EcoVoices educational program sponsored by WQA, has brought his “Water Prospector” character to new videos to explain complex concepts in a lively and animated way. Three videos were produced this year and available on the WQA website. The videos are 8-9 minutes long and short 1-minute versions were shared on WQA’s social media.

“The videos incorporate a discussion of water treatment facilities with young scientists demonstrating the concept, and end in a comic way,” Shope said.

Yes, his Water Prospector is part of the comic ending in two videos: one on volatile organic chemicals and air stripping; and the other on perchlorates and ion exchange. These water treatment methods are introduced in the videos by Dan Arrighi, Water Resources Manager for the San Gabriel Valley Water Company. Arrighi was filmed at Plant B6 treatment plant to better show the processes.

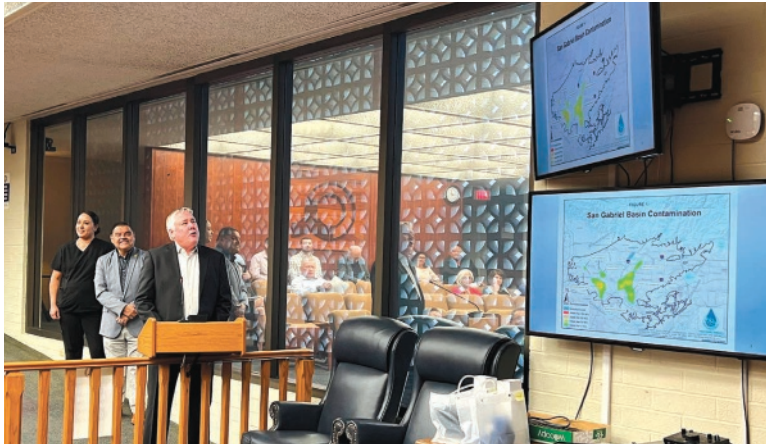


Shope demonstrates the treatment concepts in interactive ways with students from the Mountain View School District and a Montebello acting group. They don safety goggles and lab coats in the air stripping video. At the end of the ion exchange video, the students dance around as water and chemical droplets to demonstrate the exchange.

Next year, Shope will promote the videos to schools and incorporate them into a curriculum with his live presentations. Additionally, more videos are planned. Shope also conducted a WQA-sponsored EcoVoices program in La Puente Park in the summer, where about 150 people participated in water supply and ecosystem demonstrations.



COMMUNICATION AND OUTREACH



Informational Sessions for City Officials and Students

Throughout the year, WQA staff and board members presented to various city council meetings as well as to local students to provide information and updates on current WQA activities. Board Members Valerie Muñoz and Robert Gonzales, who represent cities on the WQA Board, contributed to the City Council sessions. Board Member Bob Kuhn presented to students.

During these presentations, staff explained the groundwater treatment process in the San Gabriel Basin, using maps and aerial photos. Staff also discussed WQA's important role in the cleanup, the regulatory process and provided funding updates. The presentations highlighted the cities currently receiving State Prop 68 funds and recent federal funding that will help to continue the cleanup and keep the burden off ratepayers.

WQA will continue to provide updates to city officials and students going forward and when requested. For more information, go to our website and subscribe for updates.



Making and Keeping Connections

The WQA is staying connected to the communities and people we serve. Our website features up-to-date information in an easy-to-navigate format with the added ability to subscribe for updates. We have also bolstered our social media presence across X (formerly known as Twitter), Facebook and Instagram. We are using these platforms to inform the public and highlight sponsored accomplishments. This community outreach is vital to our continued success as it aids efforts to secure more state and federal funding.

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 published in various newspapers.
- Joint sponsorship of the San Gabriel Valley Water Forum.
- Sponsors EcoVoices, an award-winning water science curriculum offered to area K-12 students.

San Gabriel Basin Water Quality Authority Addressing PFAS to Continue Safeguarding Groundwater

The WQA has continued its efforts to address PFAS contamination in the San Gabriel Basin. The authority has been instrumental in securing federal funding to support the cleanup of the basin, which is one of the largest and most complex environmental remediation projects in the United States.

Board Members: Valerie Muñoz, Robert Gonzales, Bob Kuhn, and others.

San Gabriel Basin Water Quality Authority Awards Federal Funds

The WQA has been awarded federal funding to support the cleanup of the San Gabriel Basin. This funding is a significant milestone in the authority's efforts to address PFAS contamination and protect the region's water supply.

Board Members: Valerie Muñoz, Robert Gonzales, Bob Kuhn, and others.



Water Quality Authority

San Gabriel Basin Water Quality Authority

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