SAN GABRIEL VALLEY WATER COMPANY EL MONTE / WHITTIER SYSTEM

2025 Public Health Goal Report

Required by

California Health and Safety Code Sections 116365 and 116470

JUNE 2025

STETSON ENGINEERS INC.

MainSanGabrielBasin WATERMASTER

2025 Public Health Goal (PHG) Report

San Gabriel Valley Water Company - El Monte/Whittier System

1.0 Introduction

California Health and Safety Code Sections 116365 and 116470 requires all public water systems in California serving more than 10,000 service connections to prepare a report containing information on 1) the detection of any contaminant in drinking water at a level exceeding a Public Health Goal (PHG), 2) the estimated costs to remove detected contaminants to below the PHG using Best Available Technology (BAT), and 3) the health risk associated with each contaminant exceeding a PHG. The report must be updated and made available to the public every three years. The initial PHG report was due on July 1, 1998, and subsequent reports are due every three years thereafter.

The 2025 PHG Report has been prepared to address the requirements set forth in California Health and Safety Code Section 116470. It is based on water quality analyses performed during calendar years 2022, 2023, and 2025 or, if certain analyses were not performed during those years, the most recent data available. This 2025 PHG Report is designed to be as informative as possible, without unnecessary duplication of information contained in the Consumer Confidence Report, which is provided to customers by July 1 of each year.

There are no regulations that explain the requirements or methodology for preparing PHG reports. However, a workgroup of the Association of California Water Agencies (ACWA) Water Quality Committee has prepared suggested guidelines for water utilities to use in preparing PHG reports. The ACWA guidelines were used in the preparation of this 2025 PHG Report. These guidelines include tables of cost estimates for BAT. The State of California (State) provides ACWA with numerical health risks and category of health risk information for contaminants with PHGs. This health risk information is appended to the ACWA guidelines.

2.0 California Drinking Water Regulatory Process

California Health and Safety Code Section 116365 requires the State to develop a PHG for every contaminant with a primary drinking water standard and for any contaminant the State is proposing to regulate with a primary drinking water standard. A PHG is the level that poses no significant health risk if the contaminant is consumed for a lifetime. The process of establishing a PHG is a risk assessment based strictly on human health considerations. PHGs are recommended targets and are not required to be met by any public water system.

The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) is the State office responsible for developing PHGs. OEHHA submits the PHGs to the State Water Resources Control Board, Division of Drinking Water (DDW)

for use in revising or developing a Maximum Contaminant Level (MCL) in drinking water. The MCL is the highest level of a contaminant allowed in drinking water. State MCLs cannot be less stringent than federal MCLs and must be as close as is technically and economically feasible to the PHGs. The DDW is required to take treatment technologies and cost of compliance into account when setting an MCL. Each MCL is reviewed at least once every five years.

Section 116470(b)(1) of the Health and Safety Code requires public water systems serving more than 10,000 service connections to identify each contaminant detected in its drinking water that exceeded its applicable PHG. Section 116470(f) requires the Maximum Contaminant Level Goal (MCLG), the U.S. Environmental Protection Agency (USEPA) equivalent of PHGs, to be used for comparison if there is no applicable PHG.

Two radiological contaminants (gross alpha particle activity and gross beta particle activity) have MCLs but do not yet have designated PHGs. If any of these contaminants was detected in drinking water, the MCLG was used in lieu of a designated PHG.

3.0 Identification of Contaminants

San Gabriel Valley Water Company - El Monte/Whittier System (San Gabriel) provides water service through approximately 46,608 service connections. The following contaminants were detected at one or more locations in San Gabriel's water system at levels that exceeded the applicable PHGs or MCLGs.

- **Arsenic** - naturally occurring in local groundwater.
- **Bromate** - formed when naturally-occurring bromide reacts with ozone during the disinfection process in treated surface water purchased from the Metropolitan Water District of Southern California (MWDSC).
- **Coliform Bacteria**, Total - naturally-occurring in the environment but can also be an indicator of the presence of other pathogenic organisms originating from sewage, livestock or other wildlife.
- **Gross Alpha Particle Activity** (gross alpha) - naturally occurring in local groundwater.
- **Gross beta particle activity** (gross beta) - naturally-occurring in treated surface water purchased from MWDSC; not required to be tested in the groundwater.
- **Hexavalent Chromium** - naturally-occurring in local groundwater.
- **Perchlorate** - industrial contamination in local groundwater.
- **Perfluorooctanesulfonic acid** (PFOS) - industrial contamination in local groundwater.

- **Perfluorooctanoic acid** (PFOA) - industrial contamination in local groundwater.

- **Radium, Combined**, is the sum of Radium-226 and Radium-228 - naturally-occurring in local groundwater.

- **Tetrachloroethylene (PCE)** - industrial contamination in local groundwater.

- **Uranium** - naturally occurring in local groundwater and treated surface water purchased from MWDSC.

The accompanying table shows the applicable PHG or MCLG and MCL for each contaminant listed above. The table includes the maximum, minimum, and average concentrations of each contaminant which exceeds a PHG or MCLG in drinking water supplied by San Gabriel in calendar years 2022 through 2024.

4.0 Numerical Public Health Risks

Section 116470(b)(2) of the Health and Safety Code requires disclosure of the numerical public health risk, determined by OEHHA, associated with each MCL, PHG and MCLG. OEHHA has only quantified numerical risks associated with cancer-causing chemicals. Available numerical health risks developed by OEHHA for the contaminants identified above are shown on the accompanying table.

Arsenic – OEHHA has determined the health risk associated with the PHG is 1 excess case of cancer per million people and the risk associated with the MCL is 2.5 excess cases of cancer per 1,000 people, over a 70-year lifetime exposure.

Bromate – OEHHA has determined the health risk associated with the PHG is 1 excess case of cancer in a million people and the risk associated with the MCL is 1 excess case of cancer in 10,000 people exposed over a 70-year lifetime.

Coliform Bacteria, Total – OEHHA has not established a PHG. USEPA has established an MCLG of 0.

Gross Alpha – OEHHA has not established a PHG. USEPA has established an MCLG of 0. USEPA has determined the risk associated with the MCL is 1 excess case of cancer per 1,000 people, over a 70-year lifetime exposure.

Gross Beta – OEHHA has not established a PHG. USEPA has established an MCLG of 0. USEPA has determined the risk associated with the MCL is 2 excess cases of cancer in 1,000 people exposed over a 70-year lifetime for the most potent beta emitter.

Hexavalent Chromium – OEHHA has determined the health risk associated with the PHG is 1

excess case of cancer in a million people and the risk associated with the MCL is 5 excess cases of cancer in 10,000 people exposed over a 70-year lifetime.

Perchlorate – OEHHA has not established a numerical health risk for perchlorate because PHGs for non-carcinogenic chemicals in drinking water are set at a concentration at which no known or anticipated adverse health risks will occur, with an adequate margin of safety.

PFOS – OEHHA has determined the health risk associated with the PHG is 1 excess case of cancer in a million people. There is no California MCL for PFOS; therefore, the risk information associated with the MCL is not available/applicable.

PFOA – OEHHA has determined the health risk associated with the PHG is 1 excess case of cancer in a million people. There is no California MCL for PFOA; therefore, the risk information associated with the MCL is not available/applicable.

PCE – OEHHA has determined the theoretical health risk associated with the PHG is 1 excess case of cancer in a million people and the risk associated with the MCL is 8 excess cases of cancer in 100,000 people exposed over a 70-year lifetime exposure.

Radium, Combined – OEHHA has determined that the health risk associated with the PHG is 1 excess case of cancer in one million people over a 70-year lifetime exposure; and the risk associated with the MCL is 1 excess case of cancer in 10,000 people for radium-226 and 3 excess cases of cancer in 10,000 people for radium-228 over a 70-year lifetime exposure.

Uranium – OEHHA has determined the health risk associated with the PHG is 1 excess case of cancer per million people and the risk associated with the MCL is 5 excess cases of cancer per 100,000 people, over a 70-year lifetime exposure.

5.0 Identification of Risk Categories

Section 116470(b)(3) of the California Health and Safety Code requires identification of the category of risk to public health associated with exposure to the contaminant in drinking water, including a brief, plainly worded description of those terms. The risk categories and definitions for the contaminants identified above are shown on the accompanying table.

6.0 Description of Best Available Technology

Section 116470(b)(4) of the California Health and Safety Code requires a description of the BAT, if any is available on a commercial basis, to remove or reduce the concentrations of the contaminants identified above. The BATs are shown on the accompanying table.

7.0 Costs of Using Best Available Technologies and Intended Actions

Section 116470(b)(5) of the California Health and Safety Code requires an estimate of the aggregate cost and cost per customer of utilizing the BATs identified to reduce the concentration of a contaminant to a level at or below the PHG or MCLG. In many instances, a contaminant's PHG level is much lower than its Detection Limit for purposes of Reporting (DLR). The DLR is a designated minimum level that if any analytical finding of a contaminant in drinking water is at or above shall be reported to DDW. Any analytical finding below the DLR is non-detect. In such instances, estimates will be based on removing contaminants to below their respective DLRs.

In addition, Section 116470(b)(6) requires a brief description of any actions the water purveyor plans to take to reduce the concentration of the contaminant and the basis for that decision.

Arsenic – The BATs for the removal of arsenic from water for large water systems are: activated alumina, coagulation/filtration, lime softening, ion exchange, and reverse osmosis. Arsenic was detected below the MCL of 10 micrograms per liter (µg/l) but above the PHG of 0.004 µg/l in groundwater wells owned by San Gabriel. Because the DLR for arsenic is greater than the PHG, treating arsenic to below the PHG level means treating arsenic to below the DLR of 2 µg/l. There are numerous factors that influence the cost of reducing arsenic levels below the DLR, therefore an estimate will be based on the use of ion exchange technology only. The estimated cost to reduce arsenic below the DLR of 2 µg/l using ion exchange technology is approximately $21,000,00 per year, or $450 per service connection per year.

Bromate – The BATs for removal of bromate in water for large water systems are: coagulation/filtration optimization, granular activated carbon (GAC), and reverse osmosis. Bromate was detected above the PHG in the treated surface water purchased from MWDSC. San Gabriel is in compliance with the MCL for bromate. The estimated cost to reduce bromate levels in MWDSC water to below the PHG of 0.1 µg/l using reverse osmosis was calculated. Because the DLR for bromate is 1 µg/l, treating bromate to below the PHG level means treating bromate to below the DLR of 1 µg/l. There are numerous factors that may influence the actual cost of reducing bromate levels to the PHG. Achieving the water quality goal for bromate could range from approximately $101,000 to $868,000 per year, or between $2 and $19 per service connection per year.

Coliform Bacteria, Total – The BAT for removal of coliform bacteria in drinking water has been determined by USEPA to be disinfection. San Gabriel already disinfects all water served to the public. Chlorine is used to disinfect the water because it is an effective disinfectant and residual concentrations can be maintained to guard against biological contamination in the water distribution system.

Coliform bacteria are indicator organisms that are ubiquitous in nature. They are a useful tool because of the ease in monitoring and analysis. San Gabriel collects weekly samples for total coliforms at various locations in the distribution. If coliform bacteria are detected in the drinking water sample, it indicates a potential problem that needs to be investigated and followed up with

additional sampling. It is not unusual for a system to have an occasional positive sample. Although USEPA set the MCLG for total coliforms at 0 percent positive, there is no commercially available technology that will guarantee 0 percent positive every single month; therefore, the cost of achieving the PHG cannot be estimated.

San Gabriel will continue several programs that are in place to prevent contamination of the water supply with microorganisms. These include:

- Disinfection using chlorine and maintenance of a chlorine residual at every point in the distribution system.

- Monitoring throughout the distribution system to verify the absence of total coliforms and the presence of a protective chlorine residual.

- Flushing program in which water pipelines known to have little use are flushed to remove stagnant water and bring in fresh water with residual disinfectant.

- Cross-connection control program that prevents the accidental entry of non-disinfected water into the drinking water system.

Gross Alpha, Gross Beta, Combined Radium, and Uranium – The only BAT for the removal of gross alpha in water for large water systems is reverse osmosis, which can also remove gross beta, combined radium, and uranium, if detected. Gross alpha was detected above the MCLG in the local groundwater. Gross beta was detected above the MCLG in the treated surface water purchased from MWDSC. Combined radium was detected above the MCLG in the local groundwater. Uranium was detected above the PHG in the local groundwater and treated surface water purchased from MWDSC. The cost of providing treatment using reverse osmosis to reduce gross alpha levels to the MCLG of 0 picoCurie per liter (pCi/l) (and consequently gross beta to below the MCLG of 0 pCi/l, combined radium to below the MCLG of 0 pCi/l, and uranium to below the PHG of 0.43 pCi/l) was calculated. Because the DLR for gross alpha is 3 pCi/l, treating gross alpha to 0 pCi/l means treating it to below the DLR of 3 pCi/l (and treating gross beta, radium-226, radium-228, and uranium to below their respective DLRs of 4 pCi/l, 1 pCi/l, 1 pCi/l, and 1 pCi/l). Achieving the water quality goal for gross alpha could range from $11,100,000 to $95,200,000 per year, or between $239 and $2,040 per service connection per year.

Hexavalent Chromium – The BATs for removal of hexavalent chromium in water for large water systems are: ion exchange, reduction/coagulation/filtration, and reverse osmosis. Hexavalent chromium was detected above the PHG in the local groundwater. San Gabriel is in compliance with the MCL for hexavalent chromium. The estimated cost to reduce hexavalent chromium levels in the groundwater to below the PHG of 0.02 µg/l using reduction/coagulation/filtration was calculated. Because the DLR for hexavalent chromium is 0.1 µg/l, treating hexavalent chromium to below the PHG level means treating hexavalent chromium to below the DLR of 0.1 µg/l. There are numerous factors that may influence the actual cost of reducing hexavalent chromium levels to the PHG. Achieving the water quality

goal for hexavalent chromium could be approximately $24,400,000 to $152,000,000 per year, or between $523 and $3,270 per service connection per year.

Perchlorate – The BATs for removal of perchlorate in water for large water systems are ion exchange and biological fluidized bed reactor. Perchlorate was detected above the PHG in the local groundwater. San Gabriel currently uses ion exchange treatment to treat perchlorate detected at several of its wells with high perchlorate levels; these perchlorate impacted wells are excluded from the cost estimate below. San Gabriel is in compliance with the MCL for perchlorate. The estimated cost to reduce perchlorate levels in the groundwater to below the PHG of 1 µg/l using ion exchange was calculated. Because the DLR for perchlorate is 1 µg/l, treating perchlorate to below the PHG level means treating perchlorate to below the DLR of 1 µg/l. There are numerous factors that may influence the actual cost of reducing perchlorate levels to the PHG. Achieving the water quality goal for perchlorate could be approximately $593,000 to $1,300,000 per year, or between $13 and $28 per service connection per year.

PFOS and PFOA – The BATs for removal of PFOS and PFOA in water for large water systems are: GAC, ion exchange, and reverse osmosis. PFOS and PFOA were detected above their respective PHGs in the local groundwater. The water from some of the wells impacted by PFOS and PFOA contamination is currently treated for volatile organic compounds using GAC, which is also a BAT for PFOS and PFOA; these PFOS and PFOA impacted wells are excluded from the cost estimate below. Currently, San Gabriel is looking into treatment options for PFOS and PFOA detected in the groundwater wells. San Gabriel is in compliance with the State requirements for PFOS and PFOA. The estimated cost to reduce PFOS and PFOA levels in the groundwater to below their respective PHGs of 1 nanogram per liter (ng/l) and 0.007 ng/l using GAC was calculated. Because the DDW Consumer Confidence Report Detection Level (CCRDL) for PFOS and PFOA is 4 ng/l, treating PFOS and PFOA to below their respective PHG levels means treating PFOS and PFOA to below the CCRDL of 4 ng/l. There are numerous factors that may influence the actual cost of reducing PFOS and PFOA levels to their respective PHGs. Achieving the water quality goal for PFOS and PFOA could be approximately $1,030,000 to $8,650,000 per year, or between $22 and $186 per service connection per year.

PCE – The BATs for removing PCE are GAC and packed tower aeration (PTA). PCE was detected above the PHGs at several of San Gabriel's wells. San Gabriel complies with the MCL for PCE. San Gabriel currently uses GAC treatment and PTA treatment to reduce PCE to levels below the MCL of 5 µg/l at several of its wells with high PCE levels; these PCE impacted wells are excluded from the cost estimate below. Because the DLR for PCE is greater than the PHG, treating PCE to the PHG level means treating to below the DLR of 0.5 µg/l. The cost of providing treatment using GAC to reduce PCE levels in groundwater to the DLR is estimated to range from $778,000 to $6,540,000 per year, or between $17 and $140 per service connection per year. The cost of providing treatment using PTA to reduce PCE levels in groundwater to the DLR is estimated to range from $821,000 to $3,070,000 per year, or between $18 and $66 per service connection per year.

All Contaminants – The use of GAC and ion exchange in conjunction with reverse osmosis can remove all of the contaminants detected above the PHGs or MCLGs in San Gabriel's wells to

non-detect levels. As shown on the accompanying table, achieving the water quality goals for all contaminants using GAC and ion exchange in conjunction with reverse osmosis could range from $13,400,000 to $111,000,000 per year, or between $288 and $2,380 per service connection per year.

For additional information, please contact Ms. Hai-Van Nguyen, San Gabriel's Water Quality Superintendent, at htnguyen@sgvwater.com or call her at (626) 774-2291, you may also write to San Gabriel Valley Water Company, P.O. Box 6010, El Monte, CA 91734.

This report is posted on San Gabriel's website at www.sgvwater.com.

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2025 PUBLIC HEALTH GOAL REPORT
SAN GABRIEL VALLEY WATER COMPANY

PARAMETER	UNITS OF MEASUREMENT	PHG OR (MCLG)*	MCL	DLR OR (CCRDL)	CONCENTRATION GROUNDWATER AVERAGE	CONCENTRATION GROUNDWATER RANGE	CATEGORY OF RISK	CANCER RISK AT PHG OR MCLG	CANCER RISK AT MCL	BEST AVAILABLE TECHNOLOGIES	AGGREGATE COST PER YEAR	COST PER SERVICE CONNECTION PER YEAR
MICROBIOLOGICAL												
Total Coliform Bacteria	% samples positive	(0)	TT	NA	1.6 (a)	0.51 - 3.7 (a)	NA	NA	NA	D	(b)	(b)
INORGANIC CHEMICALS												
Arsenic	µg/l	0.004	10	2	ND	ND - 5.4	C	1×10^{-6}	2.5×10^{-3}	AA,C/F,E,IE,LS,O/F,RO	$21,000,000 (c)	$450 (c)
Bromate	µg/l	0.1	10	1	2.2	ND - 12	C	1×10^{-6}	1×10^{-4}	C/F, GAC, RO	$101,000 - $868,000 (d)	$2 - $19 (d)
Hexavalent Chromium	µg/l	0.02	10	0.1	1.9	ND - 10	C	1×10^{-6}	5×10^{-4}	IE, R/C/F, RO	$24,400,000 - $152,000,000 (e)	$523 - $3,270 (e)
Perchlorate	µg/l	1	6	1	ND	ND - 1.5	E	NA	NA	IE, BFBR	$593,000 - $1,300,000 (f)	$13 - $28 (f)
ORGANIC CHEMICALS												
Perfluorooctanoic Acid (PFOA)	ng/l	0.007	4**	(4)	ND	ND - 4.1***	C	1×10^{-6}	(g)	GAC, IE, RO	$1,030,000 - $8,650,000 (h)	$22 - $186 (h)
Perfluorooctane Sulfonic Acid (PFOS)	ng/l	1	4**	(4)	ND	ND - 4.9***	C	1×10^{-6}	(g)	GAC, IE, RO	--	--
Tetrachloroethylene (PCE)	µg/l	0.06	5	0.5	ND	ND - 1.4	C	1×10^{-6}	8×10^{-5}	GAC	$778,000 - $6,540,000 (i)	$17 - $140 (i)
										PTA	$821,000 - $3,070,000 (j)	$18 - $66 (j)
RADIOLOGICAL												
Gross Alpha Particle Activity	pCi/l	(0)	15	3	ND	ND - 7.7	C	0	1×10^{-3}	RO	$11,100,000 - $95,200,000 (k)	$239 - $2,040 (k)
Gross Beta Particle Activity	pCi/l	(0)	50	4	ND	ND - 6	C	0	2×10^{-3}	IE, RO	--	--
Radium, Combined (l)	pCi/l	(0)	5	1 (l)	ND	ND - 1.1	C	1×10^{-6}	3×10^{-4}	IE, LS, RO	--	--
Uranium	pCi/l	0.43	20	1	1.5	ND - 11	C	1×10^{-6}	5×10^{-5}	C/F, IE, LS, RO	--	--
ALL CONTAMINANTS	--	--	--	--	--	--	--	--	--	GAC, IE, RO	$13,400,000 - $111,000,000 (m)	$288 - $2,380 (m)

* MCLGs are shown in parentheses. MCLGs are provided only when no applicable PHG exists.

** Federal MCL

*** Range of detections reported before the effective Federal MCL effective date of April 10, 2024.

NOTES

CCRDL = Consumer Confidence Report Detection Level
DLR = Detection Limit for Purposes of Reporting
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
µg/l = micrograms per liter or parts per billion
ng/l = nanograms per liter or parts per trillion
NA = Not Appplicable or Available
ND = Not Detected
pCi/l = picoCuries per liter
PHG = Public Health Goal

RISK CATEGORIES

C (Carcinogen) = A substance that is capable of producing cancer.
E (Endocrine Toxicity and Developmental Toxicity) = A substance that can affect the thyroid or cause neurodevelopmental deficits.

TREATMENT/CONTROL TECHNOLOGIES

AA = Activated Alumina
BFBR = Biological Fluidized Bed Reactor
C/F = Coagulation/Filtration
D = Disinfection
E = Electrodialysis
GAC = Granular Activated Carbon
IE = Ion Exchange
LS = Lime Softening
O/F = Oxidation/Filtration
PTA = Packed Tower Aeration
R/C/F = Reduction/Coagulation/Filtration
RO = Reverse Osmosis

(a) Samples collected in the distribution system.
(b) Cost could not be estimated.
(c) Estimated cost to remove arsenic using IE.
(d) Estimated cost to remove bromate using RO.
(e) Estimated cost to remove hexavalent chromium using R/C/F.
(f) Estimated cost to remove perchlorate using IE.
(g) Not applicable. Cancer risk cannot be calculated.
(h) Estimated cost to remove PFOS and PFOA using GAC.
(i) Estimated cost to remove PCE using GAC.
(j) Estimated cost to remove PCE using PTA.
(k) Estimated cost to remove gross alpha particle activity using RO, which also removes combined radium, gross beta particle activity, and uranium.
(l) As the sum of radium-226 and radium-228. DLRs for radium-226 and radium-228 is 1 pCi/L and 1 pCi/L, respectively.
(m) Assuming treating the entire production by GAC, IE, and RO, which can remove all contaminants listed in the above table to below the detectable levels, except for total coliform, which can be detected anywhere in the distribution system.