



City of  
**Mountain View**

PUBLIC WORKS DEPARTMENT  
PUBLIC SERVICES DIVISION

**2025 WATER SYSTEM  
PUBLIC HEALTH GOALS REPORT**

**Water System No. 4310007  
Calendar Years 2022-24**

<http://www.mountainview.gov/waterquality>

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Exhibit A: California Health and Safety Code Section 116470

## 1. INTRODUCTION

The City of Mountain View (City) operates a water system delivering an average of nine million gallons per day of drinking water to residents and businesses within Mountain View. The City's water supply sources include imported water from the San Francisco Public Utilities Commission and the Santa Clara Valley Water District (Valley Water), as well as groundwater from City-owned wells. California Water Service (Cal Water) also operates a water system within Mountain View, serving around 600 customers. Cal Water performs water quality monitoring and reporting for their system separately and provides this information on the Cal Water website.

The City tests for contaminants in its drinking water supply to comply with water quality requirements established by the U.S. Environmental Protection Agency (EPA) and the California State Water Resources Control Board (SWRCB). In addition to water quality requirements, the California Office of Environmental Health Hazard Assessment (OEHHA) and the EPA set more aggressive goals (nonregulatory requirements) to further reduce contaminants in water. This mandatory Public Health Goals Report discusses the City's water quality relative to these goals.

## 2. BACKGROUND

The City performs approximately 2,000 tests annually to ensure the quality of its water meets federal and state standards. Additionally, the City evaluates its water relative to nonenforceable water quality goals set by the OEHHA and EPA. These goals include:

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected health risk. PHGs are nonenforceable goals established by the OEHHA and are based on health risk assessments.

PHGs are not regulatory requirements but are nonmandatory goals set at a level at which no known or anticipated adverse effects on health will occur with an adequate margin of safety. PHGs are established based on numerous criteria, including consideration of possible synergistic effects resulting from exposure to two or more contaminants and consideration of potential adverse effects on members of subgroups that comprise a meaningful proportion of the population, including, but not limited to, infants, children, pregnant women, the elderly, and individuals with a history of serious illness. PHGs for cancer-causing chemicals are typically established at a risk level that one person in a population of one million people drinking the water daily for 70 years would be expected to develop cancer as a result of exposure to that chemical.

The process for establishing a PHG for a chemical contaminant in drinking water is rigorous. OEHHA scientists first compile all relevant scientific information available, which includes studies of the chemical's effects on laboratory animals and studies of humans who have been exposed to the chemical. The scientists use data from these studies to perform a health risk assessment in which they determine the levels of the contaminant

in drinking water that could be associated with various adverse health effects. When calculating a PHG, the OEHHA uses all the information it has compiled to identify the level of the chemical in drinking water that would not cause significant adverse health effects in people who drink that water every day for 70 years. The OEHHA must also consider any evidence of immediate and severe health effects when setting the PHG.

For cancer-causing chemicals, the OEHHA typically establishes the PHG at the “one-in-one million” risk level. At that level, not more than one person in a population of one million people drinking the water daily for 70 years would be expected to develop cancer as a result of exposure to that chemical.

State Law requires the SWRCB to set drinking water requirements for chemical contaminants as close to the corresponding PHG as is economically and technologically feasible. PHGs adopted by the OEHHA are reviewed at least once every five years and revised as necessary based on the availability of new scientific data. There are no penalties for exceeding PHGs.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs are set by the EPA and allow for a margin of safety. MCLGs are unenforceable, and there are no penalties or action required for exceeding an MCLG.

**Maximum Contaminant Level (MCL):** MCLs may be established by either the EPA or SWRCB and are the highest level of a contaminant that is allowed in drinking water. Primary MCLs (those that address health concerns) are set as close to PHGs (or MCLGs if no PHG exists) as is economically and technologically feasible. Secondary MCLs are set to regulate the odor, taste, and appearance of drinking water. MCLs established by the SWRCB must be at least as stringent as the federal MCL, if one exists. An MCL is a regulation to be met by public water systems which specifies the maximum allowable content of a contaminant in drinking water. MCLs take into account not only chemicals’ health risks, but also factors such as their detectability and treatability, as well as costs of treatment. California Health and Safety Code requires a contaminant’s MCL to be established at a level as close to its PHG as is technologically and economically feasible, placing primary emphasis on the protection of public health.

### **3. REPORTING REQUIREMENTS**

California Health and Safety Code Section 116470 (Exhibit A) requires California water retailers, such as the City of Mountain View, serving more than 10,000 service connections, to prepare a report every three years informing consumers of water quality contaminants (that have a set MCL) that exceeded the corresponding PHG or MCLG during the reporting period. Many contaminants with established MCLs do not have corresponding PHGs. For these contaminants, the City is required to report on exceedances of MCLGs if one exists. The City’s last PHG report was published in May 2019 and included information on lead and gross alpha particle exceedances. There was no

PHG report in 2022 as there were no PHG exceedances from 2022-2024. The City used guidance provided by the OEHHA and reference material from the SWRCB to prepare this report.

The City's water met all primary and secondary water quality regulatory requirements during 2022 through 2024, and the City incurred no water quality violations. Routine water quality testing identified one contaminant, hexavalent chromium (also known as chromium 6), at levels exceeding PHGs or reporting limits. To meet regulatory requirements, the City must issue a Public Health Goals Report and conduct a public hearing to take comments on the report. In accordance with State Law, the report must include the following elements:

For each exceedance, the PHG report must by law include the following information:

- The identification of each contaminant detected in drinking water that exceeds the applicable PHG during the last three years.
- The MCL and PHG as determined by OEHHA for each contaminant identified.
- The category or type of risk to health that could be associated with each contaminant identified.
- The Best Available Technologies (BATs) commercially available, if any, that could be used to reduce the contaminant level, and an estimate of the cost to utilize that treatment if it is appropriate and feasible.
- A description of the action, if any, public water systems intend to take to reduce the concentration of the contaminant.

#### **Water Quality Data Reviewed for this Report**

The City reviewed water quality data for 2022 through 2024 to determine compliance with PHGs and MCLGs. This data was summarized in the City's 2022, 2023, and 2024 Annual Water Quality Reports, also known as Consumer Confidence Reports (CCRs). Notification of the availability of the CCRs was mailed to all of City of Mountain View water customers through direct mail. The CCRs are available on the City's website or a hard copy is provided upon request.

#### **4. CONTAMINANT LEVELS THAT EXCEEDED PHGs OR MCLs**

This report contains required information for contaminant levels in the City's water supply. The City is reporting on:

- a. Hexavalent Chromium

A table summarizing the required elements, and a more detailed discussion of the contaminants is provided below:

**Hexavalent Chromium: Summary**

<u>Standards and goals</u>	PHG 0.02 parts per billion (ppb) MCL: 10 ppb
<u>Measured amounts</u>	Hexavalent chromium levels exceeded the PHG at four potable groundwater wells, with measurements of 0.36 to 1.6 ppb.
<u>Sources of contaminant</u>	Hexavalent chromium is a soluble form of chromium and enters water from sources such as electroplating factories, leather tanneries, and textile manufacturing facilities. Hexavalent chromium is also naturally occurring and can enter groundwater from geologic formations that contain chromium.
<u>Health risk</u>	Hexavalent chromium has been known to cause cancer when inhaled and has also been linked to cancer when ingested.
<u>BAT to reduce</u>	Anion Exchange treatment at groundwater wells
<u>Estimated Cost to reduce</u>	\$12 million per well to construct; \$2.4 million annually to operate and maintain
<u>Source of cost estimate</u>	SWRCB BAT for Hexavalent Chromium Treatment, Hazen & Sawyer 2013 Hexavalent Chromium BAT study
<u>Steps to reduce contaminant levels</u>	None planned. The City’s water meets all health requirements.

**Hexavalent Chromium: Overview**

Hexavalent chromium, also known as chromium 6, is a heavy metal that is commonly found at low levels in drinking water. It can occur naturally but can also enter drinking water sources by historic leaks from industrial plants’ hazardous waste sites. Various other sources also contribute to the amount of hexavalent chromium in groundwater. Chromium 6 is known to be a potent carcinogen when inhaled. It was found to also cause cancer in laboratory mice and rats that were exposed through drinking water.

In 2011, OEHHA set a final PHG for hexavalent chromium of 0.02 ppb. In 2014, the SWRCB adopted drinking water standards in the form of maximum contaminants levels (MCLs) for hexavalent chromium in drinking water. Due to challenges to the SWRCB process used to set the 2014 MCL, in 2017 the Superior Court of Sacramento County invalidated the hexavalent chromium MCL and ordered the State Water Board to adopt a new MCL. In 2024, the SWRCB adopted the revised and current MCL set at 10 ppb.

A 2007 National Toxicology Program study by the U.S. Department of Health and Human Services found significant numbers of gastrointestinal tumors in male and female rats and mice that consumed drinking water with hexavalent chromium. In addition, OEHHA's analysis of data collected from China found increased rates of stomach cancer in people exposed to high levels of hexavalent chromium from drinking water. Scientific studies have found a higher-than-average rate of lung and gastrointestinal cancers in workers who inhaled hexavalent chromium on the job. There is substantial evidence that hexavalent chromium can damage DNA. Exposure to hexavalent chromium from breathing dust or fumes is considered much more dangerous than exposure from drinking water. It is estimated that exposure to airborne hexavalent chromium is 1,000 times more potent than exposure from drinking water.

### **Hexavalent Chromium: Best Available Technologies**

Both the EPA and SWRCB identify Best Available Technologies (BATs) which are the best-known methods of reducing contaminant levels below the MCL. While a BAT may identify a process that can reduce the presence of a contaminant, there may not be commercially available technologies to reach levels below PHGs. Treatment is further complicated because it is often not possible to verify by analytical means that the contaminant has been totally eliminated. In some cases, installing a treatment technology to attempt to reduce very low levels of one contaminant may, in turn, have adverse effects on other aspects of water quality. Although there are several approved BATs for hexavalent chromium, the SWRCB has designated anion exchange as the BAT for hexavalent chromium.

The cost estimates for anion exchange treatment at City facilities were developed using the Hazen & Sawyer 2013 study cited in the SWRCB hexavalent chromium BAT report and adjusting to 2025 values. The estimated cost to implement anion exchange at each of the City's well sites is approximately \$12.0 million for construction and \$2.4 million annually for operations and maintenance costs. Estimated costs for treatment at the City's four well sites would total \$48.0 million for construction and \$9.6 million annually for operations and maintenance. Since hexavalent chromium was detected above the PHG at four well sites, each site would require individual treatment systems. Additional costs not considered in these estimates are extensive feasibility studies, pilot testing, and potential land acquisitions. In addition, the Hazen & Sawyer study targeted a final hexavalent chromium level of 1.0 ppb. Further reduction to the PHG level will have a substantial increase in, at minimum, ongoing operations costs.

## **5. NEXT STEPS**

The City of Mountain View will continue to monitor and protect water sources as required by state and federal regulations. Because the hexavalent chromium levels are well below the MCL, the City does not intend to implement additional treatment measures.

## 6. CONCLUSION

The drinking water for the City of Mountain View meets all standards established by the SWRCB and EPA. Hexavalent chromium levels in City wells are well below the MCL of 10 ppb and staff is recommending no changes to the City's current water treatment process. Therefore, no further action is proposed.

Additional information regarding hexavalent chromium can be found on the OEHHA and SWRCB websites at:

<https://oehha.ca.gov/chemicals/chromium-hexavalent>

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Chromium6.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6.html)

Additional information regarding the City of Mountain View's water quality can be found at:

**General water quality information:**

<https://www.mountainview.gov/waterquality>

This page provides links to the City's current and historical Consumer Confidence Reports (water quality reports)

Exhibit: A. Health and Safety Code: Section 116470



*NOTE: This publication is meant to be an aid to the staff of the CDHS Drinking Water Program and cannot be relied upon by the regulated community as the State of California's representation of the law. The published codes are the only official representation of the law. Refer to the published codes whenever specific citations are required.*

**Health and Safety Code §116470**

- A. As a condition of its operating permit, every public water system shall annually prepare a consumer confidence report and mail or deliver a copy of that report to each customer, other than an occupant, as defined in Section 799.28 of the Civil Code, of a recreational vehicle park. A public water system in a recreational vehicle park with occupants, as defined in Section 799.28 of the Civil Code, shall prominently display on a bulletin board at the entrance to or in the office of the park, and make available upon request, a copy of the report. The report shall include all of the following information:
1. The source of the water purveyed by the public water system.
  2. A brief and plainly worded definition of the terms "maximum contaminant level," "primary drinking water standard," and "public health goal."
  3. If any regulated contaminant is detected in public drinking water supplied by the system during the past year, the report shall include all of the following information:
    - a. The level of the contaminant found in the drinking water and the corresponding public health goal and primary drinking water standard for that contaminant.
    - b. Any violations of the primary drinking water standard that have occurred as a result of the presence of the contaminant in the drinking water and a brief and plainly worded statement of health concerns that resulted in the regulation of that contaminant.
    - c. The public water system's address and phone number to enable customers to obtain further information concerning contaminants and potential health effects.
      - i. Information on the levels of unregulated contaminants, if any, for which monitoring is required pursuant to state or federal law or regulation.
      - ii. Disclosure of any variances or exemptions from primary drinking water standards granted to the system and the basis therefor.
- B. On or before July 1, 1998, and every three years thereafter, public water systems serving more than 10,000 service connections that detect one or more contaminants in drinking

water that exceed the applicable public health goal, shall prepare a brief written report in plain language that does all of the following:

1. Identifies each contaminant detected in drinking water that exceeds the applicable public health goal.
2. Discloses the numerical public health risk, determined by the office, associated with the maximum contaminant level for each contaminant identified in paragraph (1) and the numerical public health risk determined by the office associated with the public health goal for that contaminant.
3. Identifies the category of risk to public health, including, but not limited to, carcinogenic, mutagenic, teratogenic, and acute toxicity, associated with exposure to the contaminant in drinking water, and includes a brief plainly worded description of these terms.

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4. Describes the best available technology, if any is then available on a commercial basis, to remove the contaminant or reduce the concentration of the contaminant. The public water system may, solely at its own discretion, briefly describe actions that have been taken on its own, or by other entities, to prevent the introduction of the contaminant into drinking water supplies.
  5. Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4), if any, to reduce the concentration of that contaminant in drinking water to a level at or below the public health goal.
  6. Briefly describes what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant in public drinking water supplies and the basis for that decision.
- C. Public water systems required to prepare a report pursuant to subdivision (b) shall hold a public hearing for the purpose of accepting and responding to public comment on the report. Public water systems may hold the public hearing as part of any regularly scheduled meeting.
- D. The department shall not require a public water system to take any action to reduce or eliminate any exceedance of a public health goal.
- E. Enforcement of this section does not require the department to amend a public water system's operating permit.

- F. Pending adoption of a public health goal by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c) of Section 116365, and in lieu thereof, public water systems shall use the national maximum contaminant level goal adopted by the United States Environmental Protection Agency for the corresponding contaminant for purposes of complying with the notice and hearing requirements of this section.
- G. This section is intended to provide an alternative form for the federally required consumer confidence report as authorized by 42 U.S.C. Section 300g-3(c).