## **2022 Consumer Confidence Report**

### **Water System Information**

Water System Name: Oak Manor Water Company #CA2700509

Report Date: <u>4/25/2023</u>

Type of Water Source(s) in Use: Groundwater wells

Name and General Location of Source(s): Well #1 & #2 are located on Beatrice Drive; Salinas,

<u>California</u>

Drinking Water Source Assessment Information: See attached; dated April, 2001

Time and Place of Regularly Scheduled Board Meetings for Public Participation: Time and place TBA

For More Information, Contact: Tom Yezek (831.801.7810)

### **About This Report**

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2022 and may include earlier monitoring data.

# Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Oak Manor Water Company a Beatrice Drive; Salinas, California para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 Oak Manor Water Company 以获得中文的帮助: Beatrice Drive; Salinas, California (831.801.7810).

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Oak Manor Water Company; Beatrice Drive; Salinas, California o tumawag sa 831.801.7810 para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ Oak Manor Water Company tại Beatrice Drive; Salinas, California để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau Oak Manor Water Company ntawm Beatrice Drive, Salinas, California rau kev pab hauv lus Askiv.

## **Terms Used in This Report**

| Terms Used in This                                     |   |
|--|---|
| Term   | Definition  |
| Level 1 Assessment                                     | A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.   |
| Level 2 Assessment                                     | A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions. |
| Maximum Contaminant<br>Level (MCL)                     | The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.            |
| Maximum Contaminant<br>Level Goal (MCLG)               | The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).  |
| Maximum Residual<br>Disinfectant Level<br>(MRDL)       | The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.   |
| Maximum Residual<br>Disinfectant Level Goal<br>(MRDLG) | The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.  |
| Primary Drinking Water<br>Standards (PDWS)             | MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.  |
| Public Health Goal<br>(PHG)                            | The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.  |
| Regulatory Action Level (AL)                           | The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.  |
| Secondary Drinking<br>Water Standards<br>(SDWS)        | MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.   |
| Treatment Technique (TT)                               | A required process intended to reduce the level of a contaminant in drinking water.   |
| Variances and Exemptions                               | Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.  |
| ND   | Not detectable at testing limit.  |
| ppm  | parts per million or milligrams per liter (mg/L)  |
| ppb  | parts per billion or micrograms per liter (µg/L)  |
| ppt  | parts per trillion or nanograms per liter (ng/L)  |
| ppq  | parts per quadrillion or picogram per liter (pg/L)  |
| pCi/L  | picocuries per liter (a measure of radiation)   |

## Sources of Drinking Water and Contaminants that May Be Present in Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

## Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

### **About Your Drinking Water Quality**

#### **Drinking Water Contaminants Detected**

Tables 1, 2, 3, 4, 5, 6, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Complete if bacteria are detected.

| Microbiological<br>Contaminants | Highest No.<br>of<br>Detections | No. of<br>Months in<br>Violation | MCL | MCLG | Typical Source of Bacteria         |
|---------------------------------|---------------------------------|----------------------------------|-----|------|------------------------------------|
| E. coli                         | (In the year)<br>0              | 0                                | (a) | 0    | Human and<br>animal fecal<br>waste |

<sup>(</sup>a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Table 2. Sampling Results Showing the Detection of Lead and Copper

Complete if lead or copper is detected in the last sample set.

| Lead and<br>Copper | Sample Date | No. of Samples<br>Collected | 90 <sup>th</sup> Percentile<br>Level Detected | No. Sites<br>Exceeding AL | AL  | ЭНС | No. of Schools<br>Requesting<br>Lead Sampling | Typical Source<br>of<br>Contaminant   |
|--------------------|-------------|-----------------------------|---|---------------------------|-----|-----|---|---|
| Lead<br>(ppb)      | 9/19/2022   | 5                           | 16*   | 1*                        | 15  | 0.2 | Not<br>applicable                             | Internal corrosion of<br>household water plumbing<br>systems; discharges from<br>industrial manufacturers;<br>erosion of natural deposits |
| Copper (ppm)       | 9/19/2022   | 5                           | 1.02  | 0                         | 1.3 | 0.3 | Not<br>applicable                             | Internal corrosion of<br>household plumbing<br>systems; erosion of natural<br>deposits; leaching from<br>wood preservatives               |

**Table 3. Sampling Results for Sodium and Hardness** 

| Chemical or<br>Constituent (and<br>reporting units) | Sample<br>Date          | Level<br>Detected | Range of Detections | MCL  | PHG<br>(MCLG) | Typical Source of Contaminant   |
|---|-------------------------|-------------------|---------------------|------|---------------|---|
| Sodium (ppm)  | 3/4/2015 &<br>2/27/2017 | 54.5              | 45-64               | None | None          | Salt present in the water and is generally naturally occurring          |
| Hardness (ppm)                                      | 3/4/2015 &<br>2/27/2017 | 100.3             | 94.5-106            | None | None          | Sum of polyvalent cations present in the water, generally magnesium and |

|  |  |  | calcium, and are  |
|--|--|--|-------------------|
|  |  |  | usually naturally |
|  |  |  | occurring         |

Table 4. Detection of Contaminants with a Primary Drinking Water Standard

| Chemical or<br>Constituent<br>(and<br>reporting units) | Sample<br>Date          | Level<br>Detected | Range of<br>Detections | MCL<br>[MRDL] | PHG<br>(MCLG)<br>[MRDLG] | Typical Source<br>of<br>Contaminant  |
|--|-------------------------|-------------------|------------------------|---------------|--------------------------|--|
| Arsenic (ppb)  | 2017 &<br>2022          | 7.4               | 0.0 <b>-14</b> *       | 10            | 0.004                    | Erosion of<br>natural<br>deposits; runoff<br>from orchards;<br>glass and<br>electronics<br>production<br>wastes                  |
| Fluoride (ppm)   | 3/4/2015 &<br>2/27/2017 | 0.18              | 0.13-0.23              | 2.0           | 1                        | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories         |
| Nitrate (as nitrogen, N) (ppm)                         | 2/4/2022                | 0.7               | 0.0-1.4                | 10            | 10                       | Runoff and<br>leaching from<br>fertilizer use;<br>leaching from<br>septic tanks<br>and sewage;<br>erosion of<br>natural deposits |
| Gross Alpha<br>(pCi/L)                                 | 2014-2020               | 0.45              | 0-0.9                  | 15            | (0)                      | Erosion of natural deposits  |
| Total Trihalomethanes (TTHM) (ppb)                     | 9/22/2022               | 5.0               | N/A                    | 80            | N/A                      | Byproduct of drinking water disinfection   |

Table 5. Detection of Contaminants with a Secondary Drinking Water Standard

| Chemical or<br>Constituent (and<br>reporting units) | Sample<br>Date          | Level<br>Detected | Range of Detections | SMCL  | PHG<br>(MCLG) | Typical Source<br>of<br>Contaminant                                |
|---|-------------------------|-------------------|---------------------|-------|---------------|--|
| Turbidity (units)                                   | 3/4/2018 &<br>2/27/2017 | 0.3               | 0.15-0.45           | 5     | N/A           | Soil runoff  |
| Chloride (ppm)                                      | 3/4/2018 &<br>2/27/2017 | 55                | 54-56               | 500   | N/A           | Runoff/leaching<br>from natural<br>deposits; seawater<br>influence |
| Conductivity<br>(umho/cm)                           | 6/9/2020                | 440               | 420-460             | 1,600 | N/A           | Substances that form ions when in water; seawater influence        |
| Iron (ppb)  | 2017 &<br>2022          | 1,108*            | 0.0-1,600*          | 300   | N/A           | Leaching from natural deposits; industrial wastes                  |
| Manganese (ppb)                                     | 2017 &<br>2021          | 1,094*            | 0.0-1,700*          | 50    | N/A           | Leaching from natural deposits                                     |
| Sulfate (ppm)                                       | 3/4/2015 &<br>2/27/2017 | 8.8               | 8-9.6               | 500   | N/A           | Runoff/leaching<br>from natural<br>deposits; industrial<br>wastes  |
| Total Dissolved<br>Solids (TDS)<br>(ppm)            | 3/4/2015 &<br>2/27/2017 | 270               | 265-275             | 1,000 | N/A           | Runoff/leaching<br>from natural<br>deposits                        |

**Table 6. Detection of Unregulated Contaminants** 

| Chemical or<br>Constituent (and<br>reporting units) | Sample<br>Date | Level<br>Detected | Range of Detections | Notification<br>Level | Health Effects |
|---|----------------|-------------------|---------------------|-----------------------|----------------|
| Hexavalent<br>Chromium (ppb)                        | 10/7/2014      | 3.87              | 0-7.73              | Currently no MCL*     | None           |

<sup>\*</sup>There is currently no MCL for Hexavalent Chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

#### **Additional General Information on Drinking Water**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who

have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Oak Manor Water Company is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/lead. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline (1-800-426-4791).

Additional Special Language for Nitrate, Arsenic, Lead, Radon, and *Cryptosporidium*: While your drinking water meets the federal and state standard for arsenic, the offline well (Well #2) does contain varying levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

State Revised Total Coliform Rule (RTCR): This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

# Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

| Violation  | Explanation   | Duration                                   | Actions Taken to Correct Violation  | Health Effects<br>Language  |
|------------|---|--|---|---|
| Lead (ppb) | Required distribution samples collected at 5 sites every 3 years averaged above the MCL for the first time. | Samples were collected in September, 2022. | The distribution samples will be resampled in summer, 2023 per MCHD requirement.                        | Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure. |
| Arsenic    | Well #2 (offline) has<br>had some results<br>above the MCL<br>since April, 2018                             | Well #2 was last<br>tested<br>11/10/2022   | Quarterly testing of offline Well #2.   | Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.  |
| Iron       | Well #2 (offline) has<br>had levels above<br>the MCL since<br>2013  | Well #2 was last<br>tested<br>10/13/2022   | Quarterly testing of offline Well #2. The water system is investigating treatment/replace ment options. | None.   |
| Manganese  | Well #2 (offline) ha<br>had levels above<br>the MCL since<br>2013.  | Well #2 was last<br>tested<br>10/13/2022   | Quarterly testing of offline Well #2. The water system is investigating treatment/replace ment options. | Manganese exposures resulted in neurological effects. High levels of manganese in people have been  |

|  | shown to result in  |
|--|---------------------|
|  | adverse effects to  |
|  | the nervous system. |

#### For Water Systems Providing Groundwater as a Source of Drinking Water

#### Table 8. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples

| Microbiological Contaminants (complete if fecal- indicator detected) | Total No. of<br>Detections | Sample<br>Dates | MCL<br>[MRDL] | PHG<br>(MCLG)<br>[MRDLG] | Typical Source of<br>Contaminant |
|--|----------------------------|-----------------|---------------|--------------------------|----------------------------------|
| E. coli  | (In the year)<br>0         | N/A             | 0             | (0)                      | Human and animal fecal waste     |
| Enterococci  | (In the year)<br>0         | N/A             | TT            | N/A                      | Human and animal fecal waste     |
| Coliphage  | (In the year)              | N/A             | TT            | N/A                      | Human and animal fecal waste     |

Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

Special Notice of Fecal Indicator-Positive Groundwater Source Sample: None

Special Notice for Uncorrected Significant Deficiencies: None

#### Table 9. Violation of Groundwater TT

| Violation | Explanation | Duration | Actions Taken to Correct Violation | Health Effects<br>Language |
|-----------|-------------|----------|------------------------------------|----------------------------|
| None      |             |          |                                    |                            |

For Systems Providing Surface Water as a Source of Drinking Water

Not applicable

Summary Information for Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

If a water system is required to comply with a Level 1 or Level 2 assessment requirement that is not due to an *E. coli* MCL violation, include the following information below [22 CCR section 64481(n)(1)].

#### Level 1 or Level 2 Assessment Requirement not Due to an E. coli MCL Violation

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. When found, coliforms indicate the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were not required to conduct a Level 1 assessment.

During the past year no Level 2 assessments were required to be completed for our water system.

#### Level 2 Assessment Requirement Due to an E. coli MCL Violation

*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. When found, *E. coli* bacteria indicates the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

We were not required to complete a Level 2 assessment due to *E. coli* in our water system.

## **Drinking Water Source Assessment**

Water System

## **OAK MANOR WS**

**Monterey County** 

Water Source

WELL 01

Assessment Date

**April, 2001** 

Assessment Completed By

**Monterey County** 

California Department of Public Health Drinking Water Field Operations Branch LPA Monterey County

District No. 57

System No. 2700509

Source No. 001

PS Code 2700509-001

| Vulnerak   | oility Summary                           |                       |            |                    |                    |  |  |
|--|--|-----------------------|------------|--------------------|--------------------|--|--|
| District Name<br>System Name   | Monterey County OAK MANOR WS             | District No. 57       | County _   | Monterey<br>System | <b>No.</b> 2700509 |  |  |
| Source Name  | WELL 01                                  | Source No             | 001        | PS Code            | 2700509-001        |  |  |
| Completed by   | Monterey County                          |                       | Da         | te April, 2001     |                    |  |  |
| According to CDPH records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method. |  |                       |            |                    |                    |  |  |
| A source wat   | er assessment was conducted for MANOR WS | or the <u>WELL 01</u> | _ water sy | stem in <u>Ap</u>  | ril, 2001          |  |  |
|  |  |                       |            |                    |                    |  |  |

The source is considered most vulnerable to the following activities not associated with any detected contaminants:

Septic systems - high density [>1/acre]

#### **Discussion of Vulnerability**

There have been no contaminants detected in the water supply recently, however the source is still considered vulnerable to activities located near the drinking water source.

A copy of the complete assessment may be viewed at:

Monterey County Health Department 1270 Natividad Road Room 109 California, CA 93906

You may request a summary of the assessment be sent to you by contacting:

Sandy Ayala Environmental Health Specialist (831)755-8924 (831)755-8929 (fax) ayalasa@co.monterey.ca.us

## **Vulnerability Ranking**

| District Name | Monterey County | District No57 | County | Monterey           |             |          |
|---------------|-----------------|---------------|--------|--------------------|-------------|----------|
| System Name   | OAK MANOR WS    |               |        | System No. 2700509 |             |          |
| Source Name   | WELL 01         | Source No     | 001    | PS Code            | 2700509-001 | 0509-001 |
| Completed by  | Monterey County |               |        | Pate April, 2001   |             |          |

The following PCAs were identified in the assessment and are listed in priority order based on risk to the water supply. Refer to the last page for more information.

| Zone | PCA (Risk Ranking)  | * | PCA Risk<br>Points | Zone<br>Points | PBE<br>Points | Vulnerability<br>Score |
|------|---|---|--------------------|----------------|---------------|------------------------|
| Α    | Septic systems - high density [>1/acre] (VH in Zone A, otherwise M) |   | 7                  | 5              | 5             | 17                     |
| А    | Housing - high density [>1 house/0.5 acres] (M)                     |   | 3                  | 5              | 5             | 13                     |
| Α    | Transportation corridors - Freeways/state highways (M)              |   | 3                  | 5              | 5             | 13                     |
| Α    | Surface water - streams/lakes/rivers (L)                            |   | 1                  | 5              | 5             | 11                     |
| Α    | Transportation corridors - Roads/Streets (L)                        |   | 1                  | 5              | 5             | 11                     |
| B5   | Housing - high density [>1 house/0.5 acres] (M)                     |   | 3                  | 3              | 5             | 11                     |
| B5   | Septic systems - high density [>1/acre] (VH in Zone A, otherwise M) |   | 3                  | 3              | 5             | 11                     |
| B5   | Transportation corridors - Freeways/state highways (M)              |   | 3                  | 3              | 5             | 11                     |
| B5   | Wells - Water supply (M)  |   | 3                  | 3              | 5             | 11                     |
| B5   | Surface water - streams/lakes/rivers (L)                            |   | 1                  | 3              | 5             | 9                      |
| B5   | Transportation corridors - Roads/Streets (L)                        |   | 1                  | 3              | 5             | 9                      |
| B10  | Housing - high density [>1 house/0.5 acres] (M)                     |   | 3                  | 1              | 5             | 9                      |
| B10  | Septic systems - high density [>1/acre] (VH in Zone A, otherwise M) |   | 3                  | 1              | 5             | 9                      |
| B10  | Transportation corridors - Freeways/state highways (M)              |   | 3                  | 1              | 5             | 9                      |
| B10  | Wells - Water supply (M)  |   | 3                  | 1              | 5             | 9                      |
| Α    | Wells - Water supply (M)  |   | 3                  | 0              | 5             | 8                      |

<sup>\* =</sup> A contaminant potentially associated with this activity has been detected in the water supply.

## **Explanation of Source Water Assessments and Definition of Terms**

A source water assessment was recently completed for this drinking water source. The assessment identifies the vulnerability of the drinking water supply to contamination from typical human activities. The assessments are intended to facilitate and provide the basic information necessary for a local community to develop a program to protect the drinking water supply.

A summary of the complete assessment is provided here. For more information, contact the agency or individual that prepared the assessment (shown in summary). You may also contact the local Department of Public Health Drinking Water Field Operations Branch district office <a href="http://www.cdph.ca.gov/programs/Documents/DDWEM/OriginalDistrictMapCDPH.pdf">http://www.cdph.ca.gov/programs/Documents/DDWEM/OriginalDistrictMapCDPH.pdf</a>).

Additional information about assessments can be found at: <a href="http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx">http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx</a>

#### Terms used in this summary:

Source Water Assessment: An assessment is an evaluation of a drinking water source to determine the "possible contaminating activities" (PCAs) to which the source is most vulnerable. The assessment includes: a delineation of protection zones around the source; an inventory of the types of PCAs within the source protection zones; and an analysis to determine the PCAs to which the source is most vulnerable. The information is compiled into a report that includes a map, calculations, checklists, and a summary of the findings.

Possible Contaminating Activity (PCA): A PCA is a current or historic human activity that is an actual or potential origin of contamination for a drinking water source. PCAs include activities that use, store, produce or dispose of chemicals that have the potential to contaminate drinking water supplies. There are 110 types of PCAs in the California DWSAP program.

PCA Risk Ranking: Each type of PCA is assigned a risk ranking (Very High, High, Moderate, or Low). The risk ranking is based on the contaminant(s) typically associated with that PCA, the likelihood of release from that type of facility based on historical experience, and the mobility of the contaminant(s).

PCA Inventory: The PCA inventory is a review using local knowledge, databases, and on-site evaluations to identify the occurrence and approximate location of PCAs in the source water zones. The inventory for the basic DWSAP assessments is a presence-absence review. If a type of PCA occurs in a zone, a "Yes" is noted in the inventory for that zone, regardless of whether there is one or many of that type of facility within the zone. If a PCA has been associated with a contaminant detected in the water supply, a notation is made in the PCA inventory.

Source Water Zones or Areas: These are areas located around and typically adjacent to a drinking water source that have been identified as initial protection areas.

For groundwater sources, there are typically three concentric circular zones around a source (Zones A, B5 and B10). The sizes of the are determined based on characteristics of the source. PCAs located in the inner Zone A are considered more of a risk to the water supply than PCAs located in the middle Zone B5. Similarly, PCAs located in Zone B5 are considered more of a risk than PCAs located in the outer Zone B10.

For surface water sources, the watershed is defined as the overall protection area, and as an option, zones are defined closer to the source. Two types of zones are typically established. Zone A is the area within and near the surface water body and its tributaries. Zone B is an area within 2,500 feet of the intake, not including areas in Zone A. For surface water sources, PCAs located in Zone A are considered a greater threat than PCAs located in Zone B. PCAs located on the watershed outside of the zones are considered to be of less risk to the water supply. If zones have not been defined, PCAs are considered to be of equal risk regardless of location on the watershed.

Physical Barrier Effectiveness (PBE): The PBE for a source is an evaluation of the ability of the source and the surrounding area to prevent the movement of contaminants into the source. The PBE is based on the construction and operation features of the source, and the characteristics of the surrounding area. A source is assigned a PBE of Low, Moderate or High, where High indicates that the physical barriers of the source and site are very effective in preventing the movement of contaminants. By design, typical groundwater sources will have Moderate PBE, while typical surface water sources will have Low PBE. This is due to the greater exposure of surface water sources to contamination.

Vulnerability Ranking: The vulnerability ranking is a summary of the PCAs identified in the assessment prioritized by the risk that they pose to the water supply. The prioritization is based on the risk associated with a PCA, the zone in which it occurs, and the PBE of the source. In the vulnerability ranking, points are assigned as follows:

| PCA risk ranking                   | Very High = 7 | High = 5     | Moderate = 3  | Low = 1 | Unknown in any zone = 0 |
|------------------------------------|---------------|--------------|---------------|---------|-------------------------|
| Zone (Groundwater)                 | A = 5         | B5 = 3       | B10 = 1       |         |                         |
| Zone (Surface water with zones)    | A = 5         | B = 3        | Watershed = 1 |         |                         |
| Zone (Surface water without zones) | Watershed = 5 |              |               |         |                         |
| Physical Barrier Effectiveness     | Low = 5       | Moderate = 3 | High = 1      |         |                         |

The points for each type of PCA in each zone are totaled to give a vulnerability score, and the PCAs are ranked in order from the highest score to the lowest score. PCAs associated with detected contaminants are ranked at the top, regardless of vulnerability score. By definition, groundwater sources are not considered vulnerable to PCAs with scores less than 8, and surface water sources are not considered vulnerable to PCAs with scores less than 11. It should be noted that the vulnerability ranking scores do not have a direct quantitative value. Rather, the points are used only to relatively rank the types of PCAs for an individual source.

Note: Some of the summaries do not include a vulnerability ranking. If the assessment was done on paper and the details were not entered into the database, the vulnerability ranking is not available here. In addition, alternate methods of determining vulnerability were allowed in some cases, and the vulnerability ranking is not in the database.

Vulnerability Summary: The source is considered most vulnerable to the PCAs with the highest score, and to PCAs associated with detected contaminants. These PCAs are noted in the vulnerability summary. Further details or discussion may be provided in the vulnerability discussion.