2022 Consumer Confidence Report

Water System Information

Water System Name: Colonial Oak Water Company, Inc. #270.0534

Report Date: 5/4/2023

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

Name and General Location of Source(s): Well #1, Well #3, Well #4 & Well #5. All located at the end of Marjorie Lane

Drinking Water Source Assessment Information: See attached; dated 2002

Time and Place of Regularly Scheduled Board Meetings for Public Participation: Quarterly at 19115 Marjorie Lane

For More Information, Contact: Jim Vocelka (831.224.3729)

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 Colonial Oak Water Company, Inc. a Marjorie Lane, Karen Drive and Leon 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 Colonial Oak Water Company, Inc. 以获得中文的帮助：Marjorie Lane, Karen Drive and Leon Drive; Salinas, California 831.224.3729.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Colonial Oak Water Company, Inc.; Marjorie Lane, Karen Drive and Leon Drive; Salinas, California o tumawag sa 831.224.3729 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 Colonial Oak Water Company, Inc. tại Marjorie Lane, Karen Drive and Leon 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 Colonial Oak Water Company, Inc. ntawm Marjorie Lane, Karen Drive and Leon Drive; Salinas, California rau kev pab hauv lus Askiv.

Terms Used in This Report

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 *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant 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 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 Disinfectant Level (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 Disinfectant Level Goal (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 Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (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 Water Standards (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 Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
E. coli	(In the year) 0	0	(a)	0	Human and animal fecal waste

(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 Copper	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	7/16/2020	5	ND	0	15	0.2	Not applicable	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	7/16/2020	5	0.14	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 3. Sampling Results for Sodium and Hardness

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2016, 2017 & 2021	45.5	34-63	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2016, 2017 & 2021	109.25	83.6-137	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 Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Barium (ppm)	2016, 2017 & 2021	0.002	0-0.01	1	2	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2016, 2017 & 2021	7	0-11	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2016, 2017 & 2021	0.10	0-0.14	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha (pCi/L)	2015 & 2020	0.21	0-0.721	15	(0)	Erosion of natural deposits
Nickel (ppb)	2016, 2017 & 2021	0.75	0-3	100	12	Erosion of natural deposits; discharge from metal factories

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Nitrate (as N) (ppm) **(Wells)**	2022	**10.9***	8.3-13.7	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate (as N) (ppm) **(Blend)**	2022	9.8	8.6-**10.1***	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L) (Well #5)	2020	0.24	0.183-0.304	5	0.019	Erosion of natural deposits

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2016, 2017 & 2021	60.25	43-82	500	N/A	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (uS/cm)	2016, 2017 & 2021	450.2	357-612	1,600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2016, 2017 & 2021	16.75	10-25	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2016, 2017 & 2021	322.5	260-400	1,000	N/A	Runoff/leaching from natural deposits
Turbidity (Units)	2016, 2017 & 2021	0.19	0.05-0.35	5	N/A	Soil runoff

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Zinc (ppm)	2016, 2017 & 2021	0.004	0-0.015	5.0	N/A	Runoff/leaching from natural deposits; industrial wastes

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Hexavalent Chromium (ppb) **(Wells)**	2016 & 2018	31.5	8.5-36	Currently no MCL*	None
Hexavalent Chromium (ppb) **(Blend)**	2017	8.4	7.9-9.2	Currently no MCL*	None
*There is currently no MCL for Hexavalent Chromium. The previous Hexavalent Chromium 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. Colonial Oak Water Company, Inc. 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.

Additional Special Language for Nitrate, Arsenic, Lead, Radon, and *Cryptosporidium*: Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

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

Contaminant Detected	Explanation	Duration	Actions Taken to Correct Contamination	Health Effects Language
Total Coliform Bacteria	The water system was under a Treatment Trigger (TT) during the month of July, 2022	July, 2022	Performed system inspection, minor system repairs and completed a disinfection of the system.	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. We found coliforms indicating 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.

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Nitrate (Wells)	Three of the four wells have levels above the MCL	Ongoing	The wells are blended to help keep the Nitrate levels below the MCL for consumption.	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
Nitrate (Blend)	The blend level was over the MCL	March and April, 2022	Alternative treatment options are being investigated.	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath

				and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.

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 Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
E. coli	(In the year) 0				Human and animal fecal waste
Enterococci	(In the year) 0				Human and animal fecal waste
Coliphage	(In the year) 0				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 Language
None				

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 required to conduct one Level 1 assessment. The Level 1 assessment was completed. In addition, we were required to take three corrective actions and we completed all of those actions.

During the past year there were no Level 2 assessments 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 *E. coli* in our water system.

Drinking Water Source Assessment

Water System

COLONIAL OAKS WC

Monterey County

Water Source

WELL 01

Assessment Date

March, 2002

Assessment Completed By

Monterey County

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

District No.	**57**
System No.	**2700534**
Source No.	**001**
PS Code	**2700534-001**

Vulnerability Summary

District Name Monterey County **District No.** 57 **County** Monterey

System Name COLONIAL OAKS WC **System No.** 2700534

Source Name WELL 01 **Source No.** 001 **PS Code** 2700534-001

Completed by Monterey County **Date** March, 2002

According to CDPH records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method.

A source water assessment was conducted for the **WELL 01**

of the **COLONIAL OAKS WC** water system in **March, 2002** .

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

The Colonial Oaks WC is currently blending water between the 4 wells into a single pipe, which is an unacceptable form of treatment for nitrates. Therefore, the water sources are considered vulnerable to nitrate contamination.

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 No.** 57 **County** Monterey

System Name COLONIAL OAKS WC **System No.** 2700534

Source Name WELL 01 **Source No.** 001 **PS Code** 2700534-001

Completed by Monterey County **Date** May, 2002

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 Points	Zone Points	PBE Points	Vulnerability Score
A	Septic systems - high density [>1/acre] (VH in Zone A, otherwise M)		7	5	5	17
A	Above ground storage tanks (M)		3	5	5	13
A	Housing - high density [>1 house/0.5 acres] (M)		3	5	5	13
A	Transportation corridors - Freeways/state highways (M)		3	5	5	13
A	Wells - Water supply (M)		3	5	5	13
A	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	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

*** = 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 (http://www.cdph.ca.gov/programs/Documents/DDWEM/OriginalDistrictMapCDPH.pdf).
Additional information about assessments can be found at: http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx

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.

Drinking Water Source Assessment

Water System

COLONIAL OAKS WC

Monterey County

Water Source

WELL 03

Assessment Date

May, 2002

Assessment Completed By

Monterey County

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

District No.	**57**
System No.	**2700534**
Source No.	**003**
PS Code	**2700534-003**

Vulnerability Summary

District Name Monterey County **District No.** 57 **County** Monterey

System Name COLONIAL OAKS WC **System No.** 2700534

Source Name WELL 03 **Source No.** 003 **PS Code** 2700534-003

Completed by Monterey County **Date** May, 2002

According to CDPH records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method.

A source water assessment was conducted for the **WELL 03**

of the **COLONIAL OAKS WC** water system in **May, 2002** .

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

The Colonial Oaks WC is currently blending water between the 4 wells into a single pipe, which is an unacceptable form of treatment for nitrates. Therefore, the water sources are considered vulnerable to nitrate contamination.

A copy of the complete assessment may be viewed at:

Monterey County Health Department
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ayalasa@co.monterey.ca.us

Vulnerability Ranking

District Name Monterey County **District No.** 57 **County** Monterey

System Name COLONIAL OAKS WC **System No.** 2700534

Source Name WELL 03 **Source No.** 003 **PS Code** 2700534-003

Completed by Monterey County **Date** May, 2002

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 Points	Zone Points	PBE Points	Vulnerability Score
A	Septic systems - high density [>1/acre] (VH in Zone A, otherwise M)		7	5	5	17
A	Above ground storage tanks (M)		3	5	5	13
A	Housing - high density [>1 house/0.5 acres] (M)		3	5	5	13
A	Transportation corridors - Freeways/state highways (M)		3	5	5	13
A	Wells - Water supply (M)		3	5	5	13
A	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	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

*** = 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 (http://www.cdph.ca.gov/programs/Documents/DDWEM/OriginalDistrictMapCDPH.pdf).
Additional information about assessments can be found at: http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx

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.

Drinking Water Source Assessment

Water System

COLONIAL OAKS WC

Monterey County

Water Source

WELL 04

Assessment Date

May, 2002

Assessment Completed By

Monterey County

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

District No.	**57**
System No.	**2700534**
Source No.	**004**
PS Code	**2700534-004**

Vulnerability Summary

District Name Monterey County **District No.** 57 **County** Monterey

System Name COLONIAL OAKS WC **System No.** 2700534

Source Name WELL 04 **Source No.** 004 **PS Code** 2700534-004

Completed by Monterey County **Date** May, 2002

According to CDPH records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method.

A source water assessment was conducted for the **WELL 04**

of the **COLONIAL OAKS WC** water system in **May, 2002** .

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

The Colonial Oaks WC is currently blending water between the 4 wells into a single pipe, which is an unacceptable form of treatment for nitrates. Therefore, the water sources are considered vulnerable to nitrate contamination.

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 No.** 57 **County** Monterey

System Name COLONIAL OAKS WC **System No.** 2700534

Source Name WELL 04 **Source No.** 004 **PS Code** 2700534-004

Completed by Monterey County **Date** May, 2002

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A	Wells - Water supply (M)		3	5	5	13
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