

2012 Consumer Confidence Report

Water System Name: Prunedale Mutual Water Company Report Date: June 30, 2013

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 - December 31, 2012.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: The drinking water sources for the Prunedale MWC consist of groundwater from 4 wells located directly off of Langley Canyon Road. The wells draw water from a combination of sediment and decomposed granite. General land use is rural residential.

Name & location of source(s): Well 2700702-001 – Lower Tank Site, 7373 Langley Canyon Road (**Stand-By Status**)
Well 2700702-002 – Private Road, 7401 Langley Canyon Road
Well 2700702-003 – Langley Canyon Road (7426)
Well 2700702-004 – Langley Canyon Road (7422)

Time and place of regularly scheduled board meetings for public participation: 1st Wednesday of the month, location varies.

For more information, contact: Elizabeth Mitchell, System Operator Phone: (831) 663-3290

TERMS USED IN THIS REPORT

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 (USEPA).

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.

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.

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.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variations and Exemptions: Department permission 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 (ug/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)

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 by-products 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.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 6, and 7 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 Department 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 MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.*

MICROBIOLOGICAL						
Microbiological Contaminants	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria	
Total Coliform Bacteria	(In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment from decomposition of organic matter; may be an indication of fecal waste	
Fecal Coliform or <i>E. coli</i>	(In the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste	
SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) (2010)	5	2.95	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) (2010)	5	0.41	0	1.3	0.3	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)	10/2012 Well #3&4	130 ppm	54-130 All Wells	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	10/2012 Well #1	190 ppm	100-190 All Wells	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
pH	10/2012	7.6 (average)	6.7-8.2 All Wells	6.5-8.5	none	N/A
Bicarbonate as HCO ₃ (ppm)	10/2012 Well #3	260	120-260 All Wells	N/A	N/A	N/A
Total Alkalinity as CaCO ₃ (ppm)	10/2012 Well #3	210	98-210 All Wells	N/A	N/A	N/A

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	PHG (MCLG)]	Typical Source of Contaminant
Arsenic (ppb) Distribution System	Jan-Feb'12 Apr-Dec'12	<10 ppb	3.4-14	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
	Mar '12	14* ppb		10		
Arsenic (ppb) Quarterly Sampling All Wells	3/30/12	50* Well #3	5.0-50*	10		
	6/5/12	48* Well #3	5.5-48*			
	10/6/12	55* Well #3	7.3-55*			
	12/26/12	50* Well #3	5.5-50*			
Barium (ppb)	6/5/2012	120 ppb	Well #1 only	1000	2000	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium	6/5/2012 Well #1	7.8 ppb	Well #1 only	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Fluoride (ppm)	6/5/2012	ND Well #1 0.10 Well #2 0.17 Well #3 0.19 Well #4	ND-0.19 All Wells	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nickel (ppb)	6/5/2012	31 Well #1 10 Well #2	Well 1&2 only	100	12	Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects.
Nitrate (ppm) Quarterly Sampling Well #1 Note: Well #1 is inactive	Q1	51*	44-51*	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
	Q2	48*				
	Q3	44*				
	Q4	48*				
Nitrate (ppm) Annual Sampling Wells 2, 3 & 4	12/26/2012	ND	ND	45	45	

Perchlorate (ppb)	9/19/2011	ND	ND	6	6	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
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Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors

Major sources in drinking water are by-products of drinking water disinfection

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Health Effects Language
TTHMs [Total Trihalomethanes] (ppb)	8/31/11 6987	10.2 ppb	N/A	80	n/a	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
Haloacetic Acids (ppb)	8/31/11 6987	ND	N/A	60	n/a	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Bromate (ppb)	3/6/11 18295	ND	N/A	10	0.1	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

Radioactive Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
Gross Alpha (pCi/L)	9/2007	0.7895	N/A	15	0	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Radium 228 (pCi/L)	9/2007	.07435	N/A	5	0	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Synthetic Organic Contaminants including Pesticides and Herbicides							
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
2,4-D (ppb)	11/2008	ND (All 4 Wells)	ND	70	70	Runoff from herbicide used on row crops, range land, lawns, and aquatic weeds	Some people who use water containing the weed killer 2,4-D in excess of the MCL over many years may experience kidney, liver, or adrenal gland problems.
2,4,5-TP [Silvex] (ppb)	11/2008	ND (All 4 Wells)	ND	50	25	Residue of banned herbicide	Some people who drink water containing Silvex in excess of the MCL over many years may experience liver problems.
Alachlor (ppb)	11/2008	ND (All 4 Wells)	ND	2	4	Runoff from herbicide used on row crops	Some people who use water containing alachlor in excess of the MCL over many years may experience eye, liver, kidney, or spleen problems, or experience anemia, and may have an increased risk of getting cancer.
Atrazine (ppb)	11/2008	ND (All 4 Wells)	ND	1	0.15	Runoff from herbicide used on row crops and along railroad and highway right-of-ways	Some people who use water containing atrazine in excess of the MCL over many years may experience cardiovascular system problems or reproductive difficulties.
Bentazon (ppb)	11/2008	ND (All 4 Wells)	ND	18	200	Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses	Some people who drink water containing bentazon in excess of the MCL over many years may experience prostate and gastrointestinal effects.
Dalapon (ppb)	11/2008	ND (All 4 Wells)	ND	200	790	Runoff from herbicide used on rights-of-way, and crops and landscape maintenance	Some people who drink water containing dalapon in excess of the MCL over many years may experience minor kidney changes.

Dinoseb (ppb)	11/2008	ND (All 4 Wells)	ND	7	14	Runoff from herbicide used on soybeans, vegetables, and fruits	Some people who drink water containing dinoseb in excess of the MCL over many years may experience reproductive difficulties.
Diquat (ppb)	11/2008	ND (All 4 Wells)	ND	20	15	Runoff from herbicide use for terrestrial and aquatic weeds	Some people who drink water containing diquat in excess of the MCL over many years may get cataracts.
Molinate [Ordram] (ppb)	11/2008	ND (All 4 Wells)	ND	20	1	Runoff/leaching from herbicide used on rice	Some people who use water containing molinate in excess of the MCL over many years may experience reproductive effects.
Pentachlorophenol (ppb)	11/2008	ND (All 4 Wells)	ND	1	0.4	Discharge from wood preserving factories, cotton and other insecticidal/herbicidal uses	Some people who use water containing pentachlorophenol in excess of the MCL over many years may experience liver or kidney problems, and may have an increased risk of getting cancer.
Picloram (ppb)	11/2008	ND (All 4 Wells)	ND	500	500	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years may experience liver problems.
Simazine (ppb)	11/2008	ND (All 4 Wells)	ND	4	4	Herbicide runoff	Some people who use water containing simazine in excess of the MCL over many years may experience blood problems.
Thiobencarb (ppb)	11/2008	ND (All 4 Wells)	ND	70	70	Runoff/leaching from herbicide used on rice	Some people who use water containing thiobencarb in excess of the MCL over many years may experience body weight and blood effects.

Volatile Organic Contaminants							
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
Benzene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	1	0.15	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills	Some people who use water containing benzene in excess of the MCL over many years may experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Carbon tetrachloride (ppt)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	500	100	Discharge from chemical plants and other industrial activities	Some people who use water containing carbon tetrachloride in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
1,2-Dichlorobenzene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	600	600	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichlorobenzene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems.
1,4-Dichlorobenzene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	5	6	Discharge from industrial chemical factories	Some people who use water containing 1,4-dichlorobenzene in excess of the MCL over many years may experience anemia, liver, kidney, or spleen damage, or changes in their blood.
1,1-Dichloroethane (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	5	3	Extraction and degreasing solvent; used in manufacture of pharmaceuticals, stone, clay and glass products; fumigant	Some people who use water containing 1,1-dichloroethane in excess of the MCL over many years may experience nervous system or respiratory problems.
1,2-Dichloroethane (ppt)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	500	400	Discharge from industrial chemical factories	Some people who use water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	6	10	Discharge from industrial chemical factories	Some people who use water containing 1,1-dichloroethylene in excess of the MCL over many years may experience liver problems.
cis-1,2-Dichloroethylene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	6	100	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination	Some people who use water containing cis-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
trans-1,2-Dichloroethylene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination	Some people who drink water containing trans-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.
Dichloromethane (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	ND – 1.8	5	4	Discharge from pharmaceutical and chemical factories; insecticide	Some people who drink water containing dichloromethane in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
1,2-Dichloropropane (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	5	0.5	Discharge from industrial chemical factories; primary component of some fumigants	Some people who use water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
1,3-Dichloropropene (ppt)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	500	200	Runoff/leaching from nematocide used on croplands	Some people who use water containing 1,3-dichloropropene in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	300	300	Discharge from petroleum refineries; industrial chemical factories	Some people who use water containing ethylbenzene in excess of the MCL over many years may experience liver or kidney problems.
Methyl-tert-butyl ether (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	13	13	Leaking underground storage tanks; discharge from petroleum and chemical factories	Some people who use water containing methyl-tert-butyl ether in excess of the MCL over many years may have an increased risk of getting cancer.
Styrene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	100	0.5	Discharge from rubber and plastic factories; leaching from landfills	Some people who drink water containing styrene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems.
1,1,2,2-Tetrachloroethane (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	1	0.1	Discharge from industrial and agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers	Some people who drink water containing 1,1,2,2-tetrachloroethane in excess of the MCL over many years may experience liver or nervous system problems.

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
Tetrachloroethylene (PCE) (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.
1,2,4-Trichlorobenzene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	5	5	Discharge from textile-finishing factories	Some people who use water containing 1,2,4-trichlorobenzene in excess of the MCL over many years may experience adrenal gland changes.
1,1,1-Trichloroethane (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	200	1000	Discharge from metal degreasing sites and other factories; manufacture of food wrappings	Some people who use water containing 1,1,1-trichloroethane in excess of the MCL over many years may experience liver, nervous system, or circulatory system problems
1,1,2-Trichloroethane (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	5	0.3	Discharge from industrial chemical factories	Some people who use water containing 1,1,2-trichloroethane in excess of the MCL over many years may experience liver, kidney or immune system problems.
Trichloroethylene [TCE] (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	5	1.7	Discharge from metal degreasing sites and other factories	Some people who use water containing trichloroethylene in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
Toluene (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	150	150	Discharge from petroleum and chemical factories; underground gas tank leaks	Some people who use water containing toluene in excess of the MCL over many years may experience nervous system, kidney, or liver problems.
Trichlorofluoromethane (ppb)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	150	700	Discharge from industrial factories; degreasing solvent; propellant and refrigerant	Some people who use water containing trichlorofluoromethane in excess of the MCL over many years may experience liver problems.
1,1,2-Trichloro-1,2,2-trifluoroethane (ppm)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	1.2	4	Discharge from metal degreasing sites and other factories; dry cleaning solvent; refrigerant	Some people who use water containing 1,1,2-trichloro-1,2,2-trifluoroethane in excess of the MCL over many years may experience liver problems.

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
Vinyl Chloride (ppt)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	500	50	Leaching from PVC piping; discharge from plastics factories; biodegradation byproduct of TCE and PCE groundwater contamination	.Some people who use water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer
Xylenes (ppm)	5/1/11 W1 9/26/10 W2 10/29/10 W3 11/29/10 W4	ND ND ND ND	N/A	1.750	1.8	Discharge from petroleum and chemical factories; fuel solvent	Some people who use water containing xylenes in excess of the MCL over many years may experience nervous system damage

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	10/7/2012	110 Well #1 63 Well #2 120 Well #3 140 Well #4	63-140 All Wells	500	N/A	Runoff/leaching from natural deposits
Color (units)	10/7/2012	50 Well #1 11 Well #2	Well 1&2 only	N/A	N/A	Naturally-occurring organic materials
Iron (ppb)	10/7/2012	5400 Well #1 1500 Well #2 120 Well #3 100 Well #4	100-5400*	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	10/7/2012	500 Well #1 500 Well #2 190 Well #3 140 Well #4	140-500*	50	N/A	Leaching from natural deposits.
Odor (units)	10/7/2012	ND	All Wells	3	N/A	Naturally-occurring organic materials
Turbidity (NTU)	10/7/2012	51 Well #1 10 Well #2 1.0 Well #3 0.70 Well #4	0.70-51 All Wells	5	2	Soil runoff.
Specific Conductance (micromhos)	10/7/2012	690 Well #1 490 Well #2 800 Well #3 810 Well #4	490-810 All Wells	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	10/7/2012	24 Well #1 7.9 Well #2 ND Well #3 1.2 Well #4	ND-24 All Wells	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	10/7/2012	430 Well #1 280 Well #2 420 Well #3 430 Well #4	280-430 All Wells	1000	N/A	Runoff/leaching from natural deposits
Zinc (ppb)	6/5/2012	420 Well #1	420 Well #1 only	5	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 Language
Boron (ppb)	6/5/2012	ND Well #1 ND Well #2 350 Well #3 360 Well #4	ND-360 All Wells	1,000 ppb	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

TABLE 7 – UNREGULATED ORGANIC CHEMICALS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Detection Limit For Reporting
Bromacil (HYVAR) (ppb)	11/2008	ND	10
Butachlor (ppb)	11/2008	ND	0.38
Dicamba (BANVEL) (ppb)	11/2008	ND	1.5
Dimethoate (CYGON) (ppb)	11/2008	<10	10
Metoachlor (ppb)	11/2008	<0.5	0.50
2,4,5-T	11/2008	ND	1.0
Metribuzin (ppb)	11/2008	<0.5	0.50

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

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 USEPA’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. USEPA/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).

Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. In 2012 E. Coli and Total Coliform bacteria were absent from all samples tested.

Arsenic: While water from Well #1 meets the EPA standard for arsenic, it does contain low 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.

During 2012 quarterly testing revealed that water from Wells #2, #3 and #4 consistently exceeded state and federal limits for arsenic. However, since 2009 the well water is passed through our arsenic treatment plant before being sent to the distribution system. As a result, with few exceptions our drinking water has continued to meet state and federal limits for arsenic.

While our drinking water now meets the federal and state standard for arsenic, it does contain low levels of

arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs 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.

Nitrates: *Nitrate in drinking water at levels above 45 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 45 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.*

Nitrate was detected only in Well #1, which consistently met and/or exceeded the MCL. PMWC took the well offline in 2011 and, while we continue to sample for monitoring purposes, this well source has not been used since February 2011. However, nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

Turbidity: Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Iron and Manganese: Excessive iron and manganese is routinely removed from the well water as part of the treatment process. Levels which exceed the secondary MCL can discoloration, staining, and/or a metallic taste to drinking water. Occasionally you may experience higher than normal levels of iron in your water, however iron and manganese is routinely removed as part of the arsenic treatment process.

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

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Arsenic MCL Exceeded, March 2012	Plant Malfunction	4 weeks	Bottled Water Order Initiated, performed and repair at plant and re-tested, results ok.	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

A drinking water source assessment has been completed for the Prunedale Mutual Water Company. You can review the assessment results at:

<http://swap.des.ucdavis.edu/TSinfo/TSsources.asp?mySystem=2700702>