

2004 Consumer Confidence Report

Water System Name: Meadowlark Ranches MWC

Report Date: October 5, 2005

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, 2004.

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

Type of water source(s) in use: Four groundwater wells. Two are primarily used for domestic water while the remaining two serve as stand-bys.

Name & location of source(s): Wells #1,2 and 4 are located at the end of Indian Way in the Santa Ynez River, Well 3 is located on White Oak

Drinking Water Source Assessment information: Completed by Environmental Health Services and is available upon request

Time and place of regularly scheduled board meetings for public participation: _____

For more information, contact Mike Hadley, President

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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.

Primary Drinking Water Standards (PDWS): MCLs 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.

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)

pCi/L: picocuries per liter (a measure of radiation)

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 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).

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

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 which a water system must follow.

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

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*, which 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, and septic systems.
- *Radioactive contaminants*, which 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, USEPA and the state Department of Health Services (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 must provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 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 requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (to be completed only if there was a detection of bacteria)	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	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

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (to be completed only if there was a detection of lead or copper in the last sample set)	No. of samples collected	90 th percentile level detected	No. Sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead mg/l	5	0	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper mg/l	5	1.0	1	1.3	0.17	Internal corrosion of household water 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 mg/l	1/03	40	---	none	none	Generally found in ground and surface water
Hardness mg/l	1/03	390	---	none	none	Generally found in ground and surface water

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided on the next page.

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
Lab Turbidity mg/l	1/03	0.1	---	NA	NA	Soil runoff
Fluoride mg/l	1/03	0.30	---	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

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
Sulfate mg/l	1/03	200	---	250-500-600	NA	Runoff/leaching from natural deposits' industrial wastes
Chloride mg/l	1/03	38	---	250-500-600	NA	Runoff/leaching from natural deposits; seawater influence
Specific Conductance umhos/cm	1/03	860	---	900-2200	NA	Substances that form ions when in water; seawater influence
Total Dissolved Solids mg/l	1/03	550	---	900-1600	NA	Runoff/leaching from natural deposits

Odor	TON	1/03	1	_____	NA	NA	Naturally-occurring organic materials

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Action Level	Health Effects Language
Boron ug/l	01/03	210	1000	Some men who drink water containing boron in excess of the action level over many years may experience reproductive effects, based on studies in dogs.
Vanadium ug/l	1/03	14	50	The babies of some pregnant women who drink water containing vanadium in excess of the action level may have an increased risk of developmental effects, based on studies in laboratory animals

* Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided below.

Additional General Information On Drinking Water

All 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).

Summary Information for Contaminants Exceeding an MCL or AL, or a Violation of any Treatment or Monitoring and Reporting Requirements
No Primary Contaminant Levels or Action Levels have been exceeded.

ATTACHMENT 2

Information to Provide for Detected Chemicals & Constituents with PRIMARY DRINKING WATER STANDARDS					
Contaminant	Unit Measure ment	MCL	PHG	MCLG	Typical Source of Contaminant
Microbiological Contaminants					
1. Total Coliform Bacteria	MCL (systems that collect less than 40 samples per month): No more than 1 positive sample (systems that collect more than 40 samples per month): More than 5.0% of monthly samples are positive		N/A	0	Naturally present in the environment
2. Fecal coliform and <i>E.coli</i>	MCL: a routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive		N/A	0	Human and animal waste
3. Turbidity		TT	N/A	N/A	Soil runoff
90.. Giardia lamblia, viruses, heterotrophic plate count, bacteria, Legionella		TT	N/A	0	Naturally present in the environment
Radioactive Contaminants					
4. Gross Beta Activity	pCi/L	50	N/A	0	Decay of natural and man-made deposits
5. Strontium 90	pCi/L	8	N/A	0	Decay of natural and man made deposits
6. Tritium	pCi/L	20,000	N/A	0	Decay of natural and man made deposits
7. Gross Alpha Activity	pCi/L	15	N/A	0	Erosion of natural deposits
8. Radium 226 & 228 (total)	pCi/L	5	N/A	0	Erosion of natural deposits
9. Uranium	pCi/L	20	0.5	0	Erosion of natural deposits
Inorganic Contaminants					
10. Aluminum	ppm	1	0.6	N/A	Erosion of natural deposits; residue from some surface water treatment processes
11. Antimony	ppb	6	20	N/A	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
12. Arsenic	ppb	50	0.004	N/A	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
13. Asbestos	MFL	7	N/A	7	Internal corrosion of asbestos cement water mains; erosion of natural deposits
14. Barium	ppm	1	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
15. Beryllium	ppb	4	1	4	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries
16. Cadmium	ppb	5	.07	N/A	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge

					from electroplating and industrial chemical factories and metal refineries; runoff from waste batteries and paints
17. Chromium	ppb	50	N/A	100	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Contaminant	Unit Measurement	MCL	PHG	MCLG	Typical Source of Contaminant
18. Copper	ppm	AL=1.3	0.17	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
19. Cyanide	ppb	150	150	N/A	Discharge from steel/metal, plastic and fertilizer factories
20. Fluoride	ppm	2	1	N/A	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
21. Lead	ppb	AL=15	2	N/A	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
22. Mercury (inorganic)	ppb	2	1.2	N/A	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
23. Nickel	ppb	100	12	N/A	Erosion of natural deposits; discharge from metal factories
24. Nitrate (as nitrate, NO ₃)	ppm	45	45	N/A	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
25. Nitrite (as nitrogen, N)	ppm	1	1	N/A	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
26. Selenium	ppb	50	N/A	50	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
27. Thallium	ppb	2	0.1	N/A	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides					
28. 2,4-D	ppb	70	70	N/A	Runoff from herbicide used on row crops
29. 2,4,5-TP [Silvex]	ppb	50	25	50	Residue of banned herbicide
30. Acrylamide		TT	N/A	0	Added to water during sewage/wastewater treatment
31. Alachlor	ppb	2	4	N/A	Runoff from herbicide used on row crops
32. Atrazine	ppb	1	0.15	N/A	Runoff from herbicide used on row crops and along railroad and highway right-of-ways
33. Bentazon	ppb	18	200	N/A	Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses
34. Benzo(a)pyrene (PAH)	ppt	200	4	N/A	Leaching from linings of water storage tanks and distribution mains
35. Carbofuran	ppb	18	1.7	N/A	Leaching of soil fumigant used on rice and alfalfa, and grape vineyards

Contaminant	Unit Measurement	MCL	PHG	MCLG	Typical Source of Contaminant
36. Chlordane	ppt	100	30	N/A	Residue of banned insecticides
37. Dalapon	ppb	200	790	N/A	Runoff from herbicide used on rights-of-ways, and crops and landscape maintenance
38. Di(2-ethylhexyl) adipate	ppb	400	200	400	Discharge from chemical factories
39. Di(2-ethylhexyl) phthalate	ppb	4	12	N/A	Discharge from rubber and chemical factories; inert ingredient in pesticides
40. Dibromochloropropane [DBCP]	ppt	200	1.7	N/A	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
41. Dinoseb	ppb	7	14	N/A	Runoff from herbicide used on soybeans, vegetables, and fruits
42. Dioxin [2,3,7,8-TCDD]	ppq (parts per quadrillion)	30	N/A	0	Emissions from waste incineration and other combustion; discharge from chemical factories
43. Diquat	ppb	20	15	N/A	Runoff from herbicide use for terrestrial and aquatic weeds
44. Endothall	ppb	100	580	N/A	Runoff from herbicide use for terrestrial and aquatic weeds; defoliant
45. Endrin	ppb	2	1.8	N/A	Residue of banned insecticide and rodenticide
46. Epichlorohydrin		TT	N/A	0	Discharge from industrial chemical factories; impurity of some water treatment chemicals
47. Ethylene dibromide [EDB]	ppt	50	10	0	Discharge from petroleum refineries; underground gas tank leaks; banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops
48. Glyphosate	ppb	700	1000	N/A	Runoff from herbicide use
49. Heptachlor	ppt	10	8	N/A	Residue of banned insecticide
50. Heptachlor epoxide	ppt	10	6	N/A	Breakdown of heptachlor
51. Hexachlorobenzene	ppb	1	0.03	0	Discharge from metal refineries and agricultural chemical factories and byproduct of chlorination reactions in wastewater
52. Hexachlorocyclopentadiene	ppb	50	50	N/A	Discharge from chemical factories
53. Lindane	ppt	200	32	N/A	Runoff/leaching from insecticide used on cattle, lumber, gardens
54. Methoxychlor	ppb	30	30	N/A	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
55. Molinate [Ordram]	ppb	20	N/A	N/A	Runoff/leaching from herbicide used on rice
56. Oxamyl [Vydate]	ppb	50	50	N/A	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
57. PCBs [Polychlorinated biphenyls]	ppt	500	N/A	0	Runoff from landfills; discharge of waste chemicals
58. Pentachlorophenol	ppb	1	0.4	N/A	Discharge from wood preserving factories
59. Picloram	ppb	500	500	N/A	Herbicide runoff
60. Simazine	ppb	4	4	4	Herbicide runoff
61. Thiobencarb	ppb	70	70	N/A	Runoff/leaching from herbicide used on rice

Contaminant	Unit Measurement	MCL	PHG	MCLG	Typical Source of Contaminant
62. Toxaphene	ppb	3	0.03	0	Runoff/leaching from insecticide used on cotton and cattle
63. Benzene	ppb	1	0.15	N/A	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills
64. Carbon tetrachloride	ppt	500	100	N/A	Discharge from chemical plants and other industrial activities
65. 1,2-Dichlorobenzene [o-DCB]	ppb	600	600	N/A	Discharge from industrial chemical factories
Volatile Organic Contaminants					
66. 1,4-Dichlorobenzene [p-DCB]	ppb	5	6	N/A	Discharge from industrial chemical factories
67. 1,1-Dichloroethane	ppb	5	3	N/A	Extraction and degreasing solvent; used in the manufacture of pharmaceuticals, stone, clay, and glass products; fumigant
68. 1,2-Dichloroethane	ppt	500	400	N/A	Discharge from industrial chemical factories
69. 1,1-Dichloroethylene	ppb	6	10	N/A	Discharge from industrial chemical factories
70. cis-1,2-Dichloroethylene	ppb	6	N/A	70	Discharge from industrial chemical factories
71. trans-1,2-Dichloroethylene	ppb	10	N/A	100	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination
72. Dichloromethane	ppb	5	4	N/A	Discharge from pharmaceutical and chemical factories; insecticide
73. 1,2-Dichloropropane	ppb	5	0.5	N/A	Discharge from industrial chemical factories; primary component of some fumigants
74. 1,3-Dichloropropene	ppt	500	200	N/A	Runoff/leaching from nematocide used on croplands
75. Ethylbenzene	ppb	300	300	N/A	Discharge from petroleum refineries; industrial chemical factories
76. Methyl- <i>tert</i> -butyl ether	ppb	13	13	N/A	
77. Monochlorobenzene	ppb	70	200	100	Discharge from industrial and agricultural chemical factories and dry cleaning facilities
78. Styrene	ppb	100	N/A	100	Discharge from rubber and plastic factories; leaching from landfills
79. 1,1,2,2-Tetrachloroethane	ppb	1	0.1	N/A	Discharge from industrial and agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers
80. Tetrachloroethylene [PCE]	ppb	5	0.06	N/A	Leaching from PVC pipes; discharge from factories, dry cleaners and auto shops (metal degreaser)
81. 1,2,4-Trichlorobenzene	ppb	5	5	N/A	Discharge from textile-finishing factories
82. 1,1,1-Trichloroethane	ppb	200	N/A	200	Discharge from metal degreasing sites and other factories; manufacture of food wrappings
83. 1,1,2-Trichloroethane	ppb	5	N/A	3	Discharge from industrial chemical factories
84. Trichloroethylene [TCE]	ppb	5	.8	N/A	Discharge from metal degreasing sites and other factories
85. Toluene	ppb	150	150	N/A	Discharge from petroleum and chemical factories; underground gas tank leaks

Contaminant	Unit Measurement	MCL	PHG	MCLG	Typical Source of Contaminant
86. Trichlorofluoromethane	ppb	150	700	N/A	Discharge from industrial factories; degreasing solvent; propellant and refrigerant
87. 1,1,2-Trichloro 1,2,2-trifluoroethane	ppm	1.2	4	N/A	Discharge from metal degreasing site and other factories; dry cleaning solvent; refrigerant
88. Vinyl Chloride	ppt	500	50	N/A	Leaching from PVC piping; discharge from plastics factories; biodegradation byproduct of TCE and PCE groundwater contamination
89. Xylenes	ppm	1.75	1.8	N/A	Discharge from petroleum and chemical factories; fuel solvent
Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors					
Federal Rule, currently being implemented in California per USEPA					
91. TTHMs [Total Trihalomethanes]	ppb	80	N/A	N/A	Byproduct of drinking water chlorination
92. Halocetic Acids	ppb	10	N/A	N/A	Byproduct of drinking water disinfection
93. Bromate	ppb	1	N/A	0	Byproduct of drinking water disinfection
94. Chloramines	ppm	[MRDL= 4.0 (as Cl ₂)]	N/A	[MRDLG = 4 (as Cl ₂)]	Drinking water disinfectant added for treatment
95. Chlorine	ppm	[MRDL= 4.0 (as Cl ₂)]	N/A	[MRDLG = 4 (as Cl ₂)]	Drinking water disinfectant added for treatment
96. Chlorite	ppm	1.75	N/A	0.8	Byproduct of drinking water disinfection
97. Chlorine Dioxide	ppb	[MRDL = 800 (as ClO ₂)]	1.8	[MRDLG = 800 (as ClO ₂)]	Drinking water disinfectant added for treatment
98. Control of DBP precursors (TOC)	TT	-	-	-	Various natural and manmade sources

ATTACHMENT 3

Information to Provide for Detected Chemicals					
<i>with SECONDARY DRINKING WATER STANDARDS</i>					
Contaminant	Unit Measurement	MCL	PHG	MCLG	Typical Source of Contaminant
Aluminum	ppb	200	N/A	N/A	Erosion of natural deposits; residual from some surface water treatment processes
Color	Units	15 units	N/A	N/A	Naturally-occurring organic materials
Copper	ppm	1.0	N/A	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Corrosivity	---	Non-corrosive	N/A	N/A	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Foaming Agents [MBAS]	ppb	500	N/A	N/A	Municipal and industrial waste discharges
Iron	ppb	300	N/A	N/A	Leaching from natural deposits; industrial wastes
Manganese	ppb	50	N/A	N/A	Leaching from natural deposits
Methyl-tert-butyl ether [MTBE]	ppb	5	N/A	N/A	Leaking underground storage tanks; discharge from petroleum and chemical factories
Odor--Threshold	Units	3 units	N/A	N/A	Naturally-occurring organic materials
Silver	ppb	100	N/A	N/A	Industrial discharges
Thiobencarb	ppb	1	N/A	N/A	Runoff/leaching from rice herbicide
Turbidity	Units	5 units	N/A	N/A	Soil runoff
Zinc	ppm	5.0	N/A	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS]	ppm	1000	N/A	N/A	Runoff/leaching from natural deposits
Specific Conductance	micromhos	1600	N/A	N/A	Substances that form ions when in water; seawater influence
Chloride	ppm	500	N/A	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate	ppm	500	N/A	N/A	Runoff/leaching from natural deposits' industrial wastes

Note: There are no PHGs or MCLGs for constituents with secondary drinking water standards because these are not health-based levels, but set on the basis of aesthetics.

ATTACHMENT 4

<i>Information to Provide for Detected Chemicals and Constituents with No Maximum Contaminant Levels (i.e. Unregulated Chemicals)</i>		
Monitoring Required by Section 64450, Chapter 15, Title 22, California Code of Regulations		
Chemicals	Action Level (AL)	Health Effects Language (Optional)
Boron	1 ppm	Some men who drink water containing boron in excess of the action level over many years may experience reproductive effects, based on studies in dogs.
Chromium VI (Hexavalent chromium)	n/a	n/a
Dichlorodifluoromethane (Freon 12)	1 ppm	Some people who drink water containing dichlorodifluoromethane far in excess of the action level may experience neurological and cardiac effects. Long-term exposures to dichlorodifluoromethane resulted in smaller body weight in laboratory animals.
Ethyl-tert-butyl ether (ETBE)	n/a	n/a
Perchlorate	4 ppb	Some people who drink water containing perchlorate in excess of the action level may experience effects associated with hypothyroidism. Perchlorate interferes with the production of thyroid hormones, which are required for normal pre- and postnatal development in humans, as well as normal body metabolism.
tert-Amyl-methyl ether (TAME)	n/a	n/a
tert-Butyl alcohol (TBA)	12 ppb	Some people who use water containing tert-butyl alcohol in excess of the action level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.
Trichloropropane (1,2,3-TCP)	5 ppt	Some people who use water containing 1,2,3-trichloropropane in excess of the action level over many years may have an increased risk of getting cancer, based on studies in laboratory animals
Vanadium	50 ppb	The babies of some pregnant women who drink water containing vanadium in excess of the action level may have an increased risk of developmental effects, based on studies in laboratory animals

NOTE: Detected chemical results must be included in the CCR, but inclusion of the action level and health effects language for levels above the action level is only recommended, not required.

Background

The 1996 Amendments to the Safe Drinking Water Act required the EPA to establish criteria for a monitoring program for unregulated contaminants and to publish a list of contaminants to be monitored. The EPA has revised the Unregulated Contaminant Monitoring Rule, which includes requirements for a representative sample of small public water systems to monitor for contaminants on the list for which methods have been promulgated. Small system monitoring will be paid for by the EPA, including provisions for sampling equipment, and sample shipping, testing and analysis.

Information to Provide for Chemicals Detected under the Federal UCMR Contaminants

List 1 - Assessment Monitoring

A randomly selected sample of 800 small water systems will conduct Assessment Monitoring. The State Drinking Water Agency or the EPA will inform you if your system is selected

2,4-dinitrotoluene
2,6-dinitrotoluene
Acetochlor
DCPA mono-acid degradate
DCPA di-acid degradate
4,4' - DDE
EPTC
Molinate
MTBE
Nitrobenzene
Perchlorate
Terbacil

List 2 - Screening Survey

A subset of the 800 small water systems selected to conduct Assessment Monitoring will also be required to participate in a Screening Survey. The State Drinking Water Agency or the EPA will inform you if your system is selected

1,2-diphenylhydrazine
2-methyl-phenol
2,4-dichlorophenol
2,4-dinitrophenol
2,4,6-trichlorophenol
alachlor ESA
diazinon
disulfoton
diuron
fonofos
linuron
nitrobenzene
prometon
RDX
Terbufos
Aeromonas

ATTACHMENT 5

Health Effects Language for CCR

(Constituents with Primary MCLs only - there is no standard health effects language specified for constituents with only secondary MCLs because secondary MCLs are set on the basis of aesthetics)

1. **Total 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. Coliforms were found in more samples than allowed and this was a warning of potential problems.”
2. **Fecal coliform/*E. coli*:** “Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.”
3. **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.”
4. **Gross beta activity:** “Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.”
6. **Strontium-90:** “Some people who drink water containing strontium-90 in excess of the MCL over many years may have an increased risk of getting cancer.”
7. **Tritium:** “Some people who drink water containing tritium in excess of the MCL over many years may have an increased risk of getting cancer.”
5. **Gross alpha activity:** “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.”
8. **Combined Radium 226/228:** “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.”
9. **Uranium:** “Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer.”
10. **Aluminum:** “Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.”
11. **Antimony:** “Some people who drink water containing antimony in excess of the MCL over many years may experience increases in blood cholesterol and decreases in blood sugar.”
12. **Arsenic:** “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.”
13. **Asbestos:** “Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.”
14. **Barium:** “Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.”
15. **Beryllium:** “Some people who drink water containing beryllium in excess of the MCL over many years may develop intestinal lesions.”
16. **Cadmium:** “Some people who drink water containing cadmium in excess of the MCL over many years may experience kidney damage.”

17. **Chromium:** “Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.”
18. **Copper:** “Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.”
19. **Cyanide:** “Some people who drink water containing cyanide in excess of the MCL over many years may experience nerve damage or thyroid problems.”
20. **Fluoride:** “Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.”
21. **Lead:** “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.”
22. **Mercury:** “Some people who drink water containing mercury in excess of the MCL over many years may experience mental disturbances, or impaired physical coordination, speech and hearing.”
23. **Nickel:** “Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects.”
24. **Nitrate:** “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. Symptoms include shortness of breath and blueness of the skin.”
25. **Nitrite:** “Infants below the age of six months who drink water containing nitrite in excess of the MCL may become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blueness of the skin.”
26. **Selenium:** “Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years may experience hair or fingernail losses, numbness in fingers or toes, or circulation system problems.”
27. **Thallium:** “Some people who drink water containing thallium in excess of the MCL over many years may experience hair loss, changes in their blood, or kidney, intestinal, or liver problems.”
28. **2,4-D:** “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.”
29. **2,4,5-TP (Silvex):** “Some people who drink water containing Silvex in excess of the MCL over many years may experience liver problems.”
30. **Acrylamide:** “Some people who drink water containing high levels of acrylamide over a long period of time may experience nervous system or blood problems, and may have an increased risk of getting cancer.”
31. **Alachlor:** “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.”
32. **Atrazine:** “Some people who use water containing atrazine in excess of the MCL over many years may experience cardiovascular system problems or reproductive difficulties.”

33. **Bentazon:** “Some people who drink water containing bentazon in excess of the MCL over many year may experience prostate and gastrointestinal effects.”
34. **Benzo(a)pyrene [PAH]:** “Some people who use water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.”
35. **Carbofuran:** “Some people who use water containing carbofuran in excess of the MCL over many years may experience blood, or nervous or reproductive system problems.”
36. **Chlordane:** “Some people who use water containing chlordane in excess of the MCL over many years may experience liver or nervous system problems, and may have an increased risk of getting cancer.”
37. **Dalapon:** “Some people who drink water containing dalapon in excess of the MCL over many years may experience minor kidney changes.”
38. **Dibromochloropropane [DBCP]:** “Some people who use water containing DBCP in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.”
39. **Di (2-ethylhexyl) adipate:** “Some people who drink water containing di(2-ethylhexyl) adipate in excess of the MCL over many years may experience toxic effects such as weight loss, liver enlargement, or reproductive difficulties..”
40. **Di (2-ethylhexyl) phthalate:** “Some people who use water containing di(2-ethylhexyl) phthalate in excess of the MCL over many years may experience liver problems or reproductive difficulties, and may have an increased risk of getting cancer.”
41. **Dinoseb:** “Some people who drink water containing dinoseb in excess of the MCL over many years may experience reproductive difficulties.”
42. **Dioxin (2,3,7,8-TCDD):** “Some people who use water containing dioxin in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.”
43. **Diquat:** “Some people who drink water containing diquat in excess of the MCL over many years may get cataracts.”
44. **Endothall:** “Some people who drink water containing endothall in excess of the MCL over many years may experience stomach or intestinal problems.”
45. **Endrin:** “Some people who drink water containing endrin in excess of the MCL over many years may experience liver problems.”
46. **Epichlorohydrin:** “Some people who drink water containing high levels of epichlorohydrin over a long period of time may experience stomach problems, and may have an increased risk of getting cancer.”
47. **Ethylene dibromide [EDB]:** “Some people who use water containing ethylene dibromide in excess of the MCL over many years may experience liver, stomach, reproductive system, or kidney problems, and may have an increased risk of getting cancer.”
48. **Glyphosate:** “Some people who drink water containing glyphosate in excess of the MCL over many years may experience kidney problems or reproductive difficulties.”
49. **Heptachlor:** “Some people who use water containing heptachlor in excess of the MCL over many years may experience liver damage and may have an increased risk of getting cancer.”
50. **Heptachlor epoxide:** “Some people who use water containing heptachlor epoxide in excess of the MCL over many years may experience liver damage, and may have an increased risk of getting cancer.”

51. **Hexachlorobenzene:** “Some people who drink water containing hexachlorobenzene in excess of the MCL over many years may experience liver or kidney problems, or adverse reproductive effects, and may have an increased risk of getting cancer.”
52. **Hexachlorocyclopentadiene:** “Some people who use water containing hexachlorocyclopentadiene in excess of the MCL over many years may experience kidney or stomach problems.”
53. **Lindane:** “Some people who drink water containing lindane in excess of the MCL over many years may experience kidney or liver problems.”
54. **Methoxychlor:** “Some people who drink water containing methoxychlor in excess of the MCL over many years may experience reproductive difficulties.”
55. **Molinate [Ordram]:** “Some people who use water containing molinate in excess of the MCL over many years may experience reproductive effects.”
56. **Oxamyl [Vydate]:** “Some people who drink water containing oxamyl in excess of the MCL over many years may experience slight nervous system effects.”
57. **PCBs [Polychlorinated biphenyls]:** “Some people who drink water containing PCBs in excess of the MCL over many years may experience changes in their skin, thymus gland problems, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.”
58. **Pentachlorophenol:** “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.”
59. **Picloram:** “Some people who drink water containing picloram in excess of the MCL over many years may experience liver problems.”
60. **Simazine:** “Some people who use water containing simazine in excess of the MCL over many years may experience blood problems.”
61. **Thiobencarb:** “Some people who use water containing thiobencarb in excess of the MCL over many years may experience body weight and blood effects.”
62. **Toxaphene:** “Some people who use water containing toxaphene in excess of the MCL over many years may experience kidney, liver, or thyroid problems, and may have an increased risk of getting cancer.”
63. **Benzene:** “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.”
64. **Carbon Tetrachloride:** “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.”
65. **1,2-Dichlorobenzene [o-DCB]:** “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.”
66. **1,4-Dichlorobenzene [p-DCB]:** “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.”
67. **1,1-Dichloroethane:** “Some people who use water containing 1,1-dichloroethane in excess of the MCL over many years may experience nervous system or respiratory problems.
68. **1,2-Dichloroethane:** “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.”

69. **1,1-Dichloroethylene:** “Some people who use water containing 1,1-dichloroethylene in excess of the MCL over many years may experience liver problems.”
70. **cis-1,2-Dichloroethylene:** “Some people who use water containing cis-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.”
71. **trans-1,2-Dichloroethylene:** “Some people who drink water containing trans-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.”
72. **Dichloromethane:** “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.”
73. **1,2-Dichloropropane:** “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.”
74. **1,3-Dichloropropene:** “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.”
75. **Ethylbenzene:** “Some people who use water containing ethylbenzene in excess of the MCL over many years may experience liver or kidney problems.”
76. **Methyl-tert-butyl ether:** “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.”
77. **Monochlorobenzene:** “Some people who use water containing chlorobenzene in excess of the MCL over many years may experience liver or kidney problems.”
78. **Styrene:** “Some people who drink water containing styrene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems.”
79. **1,1,2,2-Tetrachloroethane:** “Some people who drink water containing 1,1,2,2-tetrachloroethane in excess of the MCL over many years may experience liver and nervous system problems.”
80. **Tetrachloroethylene [PCE]:** “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.”
81. **1,2,4-Trichlorobenzene:** “Some people who use water containing 1,2,4-trichlorobenzene in excess of the MCL over many years may experience adrenal gland changes.”
82. **1,1,1-Trichloroethane:** “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.”
83. **1,1,2-Trichloroethane:** “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.”
84. **Trichloroethylene [TCE]:** “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.”
85. **Toluene:** “Some people who use water containing toluene in excess of the MCL over many years may experience nervous system, kidney, or liver problems.”
86. **Trichlorofluoromethane:** “Some people who use water containing trichlorofluoromethane in excess of the MCL over many years may experience liver problems.”
87. **1,1,2-Trichloro-1,2,2-trifluoroethane:** “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.”
88. **Vinyl Chloride:** “Some people who use water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.”

89. **Xylenes:** “Some people who use water containing xylenes in excess of the MCL over many years may experience nervous system damage.”
90. **Giardia lamblia, viruses, heterotrophic plate count, bacteria, Legionella:** “Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.”
91. **Trihalomethanes (TTHMs):** “Some people who use 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.”
92. **Halocetic Acids:** “Some people who drink water containing halocetic acids in excess of the MCL over many years may have an increased risk of getting cancer.”
93. **Bromate:** “Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.”
94. **Chloramines:** “Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort.”
95. **Chlorine:** “Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.”
96. **Chlorite:** “Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.”
97. **Chlorine dioxide:** “Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink the water.”
98. **Control of DBP precursors (TOC):** “Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.”