

**MADISON WATER UTILITY
WATER QUALITY WATCH LIST**

Organics - Regulated

Contaminant	Maximum *	Units	MCLG	PAL	MCL	Detects Below PAL %	Watch List	Action Plan	Reference
1,2-Dichloroethane	[0.17]	µg/L	zero	0.5	5	#17	none		NR 140.10
1,2-Dichloroethylene (cis)	[0.40]	µg/L	70	7	70	#8, #9, #11, #14	none		NR 140.10
Ethylbenzene	[0.14]	µg/L	700	140	700	#225	none		NR 140.10
Tetrachloroethylene [PCE]	3.9	µg/L	zero	0.5	5	#11, #14, #27	#6, #9, #15, #18	Budget one GW Inv per Year; Air Stripper at #15 (2013)	NR 140.10
Toluene	2.2	µg/L	1000	160	1000	#15, #18, #25	none		NR 140.10
1,1,1-Trichloroethane	[0.29]	µg/L	200	40	200	#9, #18	none		NR 140.10
Trichloroethylene [TCE]	0.43	µg/L	zero	0.5	5	#11, #14, #15, #18, #27	none		NR 140.10
Xylene, Total	1.5	µg/L	10000	400	10000	#225	none		NR 140.10

* Maximum detection observed at any Madison well from 2009 through 2013

% Detected in at least one sample collected from 2009 through 2013

Organics - Unregulated

Contaminant	Maximum *	Units	MCLG	PAL	ES	Wells with Detects %	Watch List	Action Plan	Reference
Dichlorodifluoromethane	[0.23]	µg/L	n/a	200	1000	#14	none		NR 140.10
1,1-Dichloroethane	0.07	µg/L	n/a	85	850	#9	none		NR 140.10
1,4-Dioxane	0.63	µg/L	n/a	0.3	3	#9, #11, #14, #15	#11, #14	Monitor	NR 140.10
Methyl t-butyl ether [MTBE]	[0.14]	µg/L	n/a	12	60	#15	none		NR 140.10
Trichlorofluoromethane	1.3	µg/L	n/a	698	3490	#11	none		NR 140.10
1,2,4-Trimethylbenzene	0.64	µg/L	n/a	96	480	#7, #15	none		NR 140.10
1,3,5-Trimethylbenzene	[0.20]	µg/L	n/a	96	480	#15	none		NR 140.10

* Maximum detection observed at any Madison well from 2009 through 2013

% Detected in at least one sample collected from 2009 through 2013

Radionuclides

Contaminant	Maximum	Units	MCLG	Watch	MCL	Wells with Detects	Watch List	Action Plan	Reference
Gross alpha	13.8	pCi/L	zero	5	15	All Wells	#7, #13, #19, #25, #27, #28, #30	Monitor	NR 809.50
Gross beta	14.8	pCi/L	zero	10	50	All Wells	#19, #28	Monitor	NR 809.50
Combined Radium	5.8	pCi/L	zero	2.5	5	All Wells	#7, #8, #15, #19, #27, #28, #30	Monitor	NR 809.50
Uranium	2.0	µg/L	zero	3	30	All Wells	none		NR 809.50

ES - Enforcement Standard (NR 140 - Groundwater Quality)

MCL - Maximum Contaminant Level Legal Limit

MCLG - MCL Goal (Public Health Goal)

PAL - Preventive Action Limit (NR 140 - Groundwater Quality)

**MADISON WATER UTILITY
WATER QUALITY WATCH LIST**

Inorganics - Regulated

Substance	Maximum*	Units	MCLG	PAL	MCL	Detects Below PAL	Watch List	Action Plan	Reference
Antimony	0.2	µg/l	6	1.2	6	#11	none		NR 140.10
Arsenic	0.7	µg/l	zero	1	10	#7, #8, #14, #17, #19, #23, #24, #26, #27, #28, #29, #30	none		NR 140.10
Barium	66	µg/l	2000	400	2000	All Wells	none		NR 140.10
Chromium	2.2	µg/l	100	10	100	All Wells	none		NR 140.10
Copper	60	µg/l	1300	130	1300	All Wells	none		NR 140.10
Lead	0.6	µg/l	zero	1.5	15	All Except #14, #16, #19, #27, #29, #30	none		NR 140.10
Nickel	3.0	µg/l	100	20	100	All Wells	none		NR 140.10
Nitrogen-Nitrate	4.3	mg/l	10	2	10	#9, #12, #18, #20, #25, #27, #29	#6, #11, #13, #14, #15, #16, #23, #26	Monitor	NR 140.10
Selenium	1.5	µg/l	50	10	50	#6, #9, #11, #13, #14, #15, #16 #17, #23, #25, #26, #27, #29	none		NR 140.10
Thallium	0.3	µg/l	0.5	0.4	2	#11, #17, #19, #23, #26, #27	none		NR 140.10

* Based on 2013 annual test data

Inorganics - Unregulated

Substance	Maximum*	Units	MCLG	Watch	SMCL	Wells with Detects	Watch List	Action Plan	Reference
Aluminum	3.3	µg/l	n/a	50	200	All Wells	none		NR 809.70
Chloride	106	mg/l	n/a	125	250	All Wells	none		NR 809.70
Iron	0.39	mg/l	n/a	0.1	0.3	All Except #6, #9, #11, #12, #14, #16, #18, #20	#7, #8, #17, #19, #24, #27, #28, #30	#7 - Install Filtration (2014), #8 - Install Filtration (2020), #19 - Install Filtration (2015), #30 - Install Filtration (2017)	NR 809.70
Manganese	42	µg/l	n/a	20	50	All Except #16	#7, #8, #17, #19, #23, #24, #26, #27, #28	#7 - Install Filtration (2014), #8 - Install Filtration (2020), #19 - Install Filtration (2015)	NR 809.70
Sodium	37	mg/l	n/a	20	20	All Wells	#14, #15, and #23	Monitor	EPA DWEL
Sulfate	51	mg/l	n/a	125	250	All Wells	none		NR 809.70
Zinc	15	µg/l	n/a	2500	5000	All Wells	none		NR 809.70

* Based on 2013 annual test data

MCL - Maximum Contaminant Level (Legal Limit)

MCLG - MCL Goal Public Health Goal

PAL - Preventive Action Limit (NR 140 - Groundwater Quality)

SMCL - Secondary MCL (Aesthetic Guideline)

DWEL - Drinking Water Equivalency Level