

**MADISON WATER UTILITY  
WATER QUALITY WATCH LIST**

**Organics - Regulated**

Contaminant	Maximum*	Units	MCLG	PAL	MCL	Detects Below PAL%	Watch List	Action Plan	Reference
Atrazine	0.04	µg/L	3	0.3	3	#14, #29	none		NR 809.20
1,2-Dichloroethane	0.1	µg/L	zero	0.5	5	#17	none		NR 809.24
1,2-Dichloroethylene (cis)	0.41	µg/L	70	7	70	#8, #9, #11, #27	none		NR 809.24
Ethylbenzene	0.7	µg/L	700	140	700	#9	none		NR 809.24
Tetrachloroethylene [PCE]	3.7	µg/L	zero	0.5	5	#27	#6, #7, #9, #11, #14, #18	Quarterly Monitoring	NR 809.24
Toluene	0.2	µg/L	1000	160	1000	#9, #31	none		NR 809.24
1,1,1-Trichloroethane	0.1	µg/L	200	40	200	#9, #18	none		NR 809.24
Trichloroethylene [TCE]	0.42	µg/L	zero	0.5	5	#11, #14, #18	none		NR 809.24
Xylene, Total	4.5	µg/L	10000	400	10000	#9, #24, #31	none		NR 809.24

\* Maximum detection observed at any Madison well from 2018 through 2022

% Detected in at least one sample collected from 2018 through 2022

**Organics - Unregulated**

Contaminant	Maximum*	Units	HAL	PAL	ES	Detects Below PAL%	Watch List	Action Plan	Reference
Chloromethane	0.72	µg/L	n/a	3	30	#18	none		NR 140.10
1,4-Dioxane	0.41	µg/L	0.35~	0.3	3	#9, #14, #15, #18	#11	Semi-Annual Monitoring	NR 140.10
Metolachlor	0.01	µg/L	n/a	10	100	#14	none		NR 140.10
PFAS: Combined / PFOA + PFOS	0.056 / 0.012	µg/L	0.07^	0.002^#	0.02^#	#6, #7, #9, #11, #13, #17, #18, #24, #25, 26, #27, #29, 30	#8, #14, #15, #16	Semi-Annual Monitoring	WI DNR Rulemaking
Trichlorofluoromethane	0.78	µg/L	n/a	698	3490	#11	none		NR 140.10
Trichlorotrifluoroethane	0.54	µg/L	--	--	--	#14	none		N.A.

\* Maximum detection observed at any Madison well from 2018 through 2022

% Detected in at least one sample collected from 2018 through 2022

~ 10<sup>-6</sup> Cancer Risk Level

^ PFOA + PFOS

# Proposed

**Radionuclides (2020 & 2021 data)**

Contaminant	Maximum	Units	MCLG	Watch	MCL	Wells with Detects	Watch List	Action Plan	Reference
Gross alpha	11	pCi/L	zero	5	15	All Wells	#7, #18, #19, #25, #27, #28	Annual or Quarterly Monitoring	NR 809.50
Gross beta	10	pCi/L	zero	10	50	All Wells	#27		NR 809.50
Combined Radium	5.3	pCi/L	zero	2.5	5	All Wells	#7, #8, #19, #24, #27, #28, #30	Continued Monitoring; Treatment (2023)	NR 809.50

ES - Enforcement Standard (NR 140 - Groundwater Quality)

HAL - Health Advisory Level

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	0.11	µg/l	6	1.2	6	#9	none		NR 140.10
Arsenic	0.51	µg/l	zero	1	10	#8, #19, #24, #30	none		NR 809.11
Barium	66	µg/l	2000	400	2000	All Wells	none		NR 809.11
Chromium, Total	2.1	µg/l	100	10	100	#6, #8, #9, #11, #12, #13, #14, #16, #17, #18, #20, #25, #26, #27, #29, #31	none		NR 809.11
Nickel	2.5	µg/l	100	20	100	All Wells	none		NR 809.11
Nitrogen-Nitrate	4.0	mg/l	10	2	10	#7, #9, #12, #18, #20, #25, #26, #27, #28, #29	#6, #11, #13, #14, #16	Annual Monitoring	NR 809.11
Nitrogen-Nitrite	0.30	mg/l	1	0.2	1	All Wells Except #14	none		NR 809.11
Selenium	1.4	µg/l	50	10	50	#6, #9, #11, #13, #14, #16, #25, #29	none		NR 809.11
Thallium	0.19	µg/l	0.5	0.4	2	#11, #12, #17, #19, #27	none		NR 809.11

\* Based on 2021 annual test data

**Inorganics - Unregulated**

Substance	Maximum*	Units	MCLG	Watch	SMCL	Wells with Detects	Watch List	Action Plan	Reference
Chloride	164	mg/l	n/a	125	250	All Wells	#14	Borehole Investigation, (2022)	NR 809.70
Iron	0.62	mg/l	n/a	0.1	0.3	All Wells Except #20	#8, #17, #19, #24, #27, #28, #30	Install Filtration: Well #8 (20XX) Well #19 (2023) Well #24 (20XX) Well #28 (20XX) Well #30 (20XX)	NR 809.70
Manganese	52	µg/l	n/a	20	50	All Wells Except #14	#8, #17, #19, #24, #26, #27, #28		NR 809.70
Sodium	60	mg/l	n/a	20	n/a	All Wells	#6, #9, #11, #14, #16	Annual Monitoring	EPA DWEL
Sulfate	40	mg/l	n/a	125	250	All Wells	none		NR 809.70
Zinc	26	µg/l	n/a	2500	5000	All Wells	none		NR 809.70

\* Based on 2021 annual test data

DWEL - Drinking Water Equivalency Level    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)