

SUMMARY OF WATER QUALITY

CONTAMINANTS (UNITS)	MCLG	MCL	LEVEL FOUND	RANGE OF DETECTIONS	VIOLATION	YEAR SAMPLED	MAJOR SOURCES
MICROBIOLOGICAL CONTAMINANTS							
Turbidity (NTU)	NA	TT	0.69 NTU	0.023-0.69 NTU	NO	2005	Soil runoff
Turbidity (% samples meeting standard)	NA	TT	99.87%	99.87%-100%	NO	2005	
Chlorine (ppm)	MRDL=4.0	MRDL=4.0	1.47 ppm	1.07-1.47	No	2005	Water additive use
Total Organic Carbon (TOC)	NA	TT	2.57	1.52-2.57	NO	2005	Present in the environment
INORGANIC CHEMICALS							
Copper (ppm) sampled at customer tap	1.3 *	1.3 AL=1.3	0.090 ppm 90%	<.05-0.115 mg/L n/a	NO	2005	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Flouride (ppm) sampled in distribution system	4	4	1.0111 ppm	0.9-1.08 ppm	NO	2005	Erosion of natural deposits water additive which promotes strong teeth; discharge from fertilizer & aluminum factories
Nitrate (ppm) Sampled at plant tap	10	10	.95 ppm	<.5-1.06 mg/L	NO	2005	Run off from fertilizer use, leaching (from septic tanks) sewage; erosion of natural deposits
SYNTHETIC ORGANIC CHEMICALS (SAMPLES AT PLANT TAP)							
Atrazine (ppb)	3	3	0.1995 ppb	0.0-0.1365	NO	2005	Run off from herbicide use on row crops
Alachlor (ppb)	0	2	.028 ppb	0-0.11	NO	2004	Run off from herbicide use on row crops
Simazine (ppb)	4	4	0.037 ppb	0.0-0.128	NO	2003	Herbicide run off
VOLATILE ORGANIC CHEMICALS							
TTHM (Total Trihalomethanes) (ppb)	0	80	61.8 ppb	31.12-98.9 ppb	NO	2005	By-product of drinking water chlorination
HAA5 (ppb)	0	60	21.37 ppb	7.81-45.15	NO	2005	By-product of drinking water chlorination
Bromodichloro-methane (ppb) (sampled at plant tap)	not regulated	not regulated	13.1 ppb	13.1	NO	2002	Treatment by-product
Dibromochloro-methane (ppb) (sampled at plant tap)	not regulated	not regulated	6.7 ppb	6.7	NO	2002	Treatment by-product
Bromoform (ppb)	not regulated	not regulated	0.7 ppb	0.7	NO	2002	Treatment by-product
RADIOACTIVE CONTAMINANTS (SAMPLED AT WATER PLANT)							
Alpha emitters (pci/L)	0	15	1.1 pci/l	1.1	NO	2003	Decay of natural & man-made deposits
Beta emitters (pci/L)	0	50	5.0 pci/l	5.0	NO	2003	Decay of natural & man-made deposits

(Listed above are 16 contaminants detected in Marysville's drinking water in 2004. All are below allowed levels. Not listed are over one hundred contaminants for which we tested that were not detected.)

* Zero out of thirty (30) samples was found to have copper levels in excess of the action level of 1.3 ppm

DEFINITIONS:

- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
- **pci/L:** Picocuries per liter is a measure of the radioactivity in water.
- **Treatment Technique (TT):** A required process intended to remove the level of a contaminant in drinking water.
- **AL = Action Level:** The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.
- **ppm:** Parts per Million (one penny out of \$10,000.00)
- **ppb:** Parts per Billion (one penny out of 10 million dollars)
- **Distribution System:** System of pipes used to deliver the water to the customer.
- **"<" symbol:** Less than
- **">" symbol:** More than
- **n/a =** not applicable
- **MRDL =** Maximum Residual Disinfectant Level

NOTES:

- ATRAZINE, SIMAZINE, and TTHM highest levels allowed (MCL) are based on a running average of the last 4 quarters. The running average is updated every 3 months. (Did not sample in June & July as required.)
- Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.30 NTU in 95% of the daily samples and shall not exceed 1.0 NTU at anytime. As reported above the City of Marysville recorded turbidity result for 2004 was 0.98 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.99
- Total Organic Carbon (TOC) has no health effects. However, TOC provides a medium when the water is disinfected for the formation of disinfection byproducts. TOC removal early in the treatment plant is required. The monthly TOC removal ratio is calculated as the ratio between the actual TOC removal and the TOC rule removal requirements. The actual ratio shown is the average of the ratios for the 12 months in 2004.