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# Milwaukee **Water Works**

*Safe, Abundant Drinking Water.*

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Chemical Contaminants  
that were NOT found in  
Milwaukee's Drinking  
Water

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2008 Water Quality  
Monitoring Results

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## **Undetected Chemical Contaminants 2008 Water Quality Monitoring Results**

*Milwaukee drinking water is exceptional in quality and exceeds all standards set by water quality regulators.*

The Milwaukee Water Works has expanded its water quality monitoring and screening activities to include organisms and contaminants that are not yet regulated but considered of “emerging concern.”

There are no requirements to test for these contaminants nor are there regulations governing detectable levels of these contaminants in drinking water.

The Milwaukee Water Works continually meets U.S. Environmental Protection Agency (EPA) requirements to test for 90 regulated contaminants, and voluntarily tests for over 500 non-regulated contaminants. Most of the contaminants are not detected.

Science has not demonstrated an impact on human health at the trace levels these compounds are being discovered. Neither testing for pharmaceutical compounds nor disclosure of results from voluntary testing for these compounds is required by the Safe Drinking Water Act.

The monitoring is done to best understand the water quality and to be in a position to take additional action if needed, to collect baseline data for study, and to meet future regulations.

Milwaukee’s water treatment system was in full compliance five years ahead of time with new EPA regulations to control disinfection byproducts, the result of rigorous water quality monitoring and investment in treatment and distribution systems.

The Milwaukee Water Works (MWW) was one of the first utilities in the U.S. to test for endocrine disrupting compounds (EDCs) (2003) and pharmaceuticals and personal care products (PPCPs) (2006) in its source water and drinking water.

The Milwaukee Water Works is proactive in expanding monitoring of unregulated contaminants to include

additional EDCs and brominated flame retardants to increase the understanding of these contaminants to protect consumer health.

The Milwaukee Water Works has been recognized by the EPA for its interagency relationships with local, state, and national health and environmental agencies in a program of enteric disease surveillance and response.

A link to American Water Works Association consumer information about pharmaceuticals in drinking water is found at [www.drinktap.org](http://www.drinktap.org) (at the left, choose Water Information). The Water Research Foundation recently released findings of a study which indicated the levels of trace pharmaceuticals in drinking water are too low to impact human health. A release about the findings is found at:

<http://www.prweb.com/releases/2009/03/prweb2199124.htm>

*The following is a list of chemical contaminants, regulated and non-regulated, which were tested for in Milwaukee Water Works treated drinking water. None were detected.*

*Please refer to the 2008 Consumer Confidence Report for additional information,*  
[www.water.mpw.net/1waterquality.htm](http://www.water.mpw.net/1waterquality.htm).

*Carrie M. Lewis, Superintendent  
Lon Couillard, Water Quality Manager*

April 1, 2009

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### **INORGANIC CHEMICALS**

Antimony; Arsenic; Beryllium; Cadmium; Cerium; Cesium; Chlorite; Cobalt; Cyanide; Dysprosium; Erbium; Europium; Gadolinium; Gold; Hafnium; Holmium; Iridium; Lanthanum; Lutetium; Molybdenum; Neodymium; Nitrite; Niobium; Osmium; Palladium; Platinum; Praseodymium; Protactinium; Rhenium; Rhodium; Ruthenium; Samarium; Selenium; Silver; Tantalum; Tellurium; Thallium; Thorium; Thulium; Tin; Titanium; Tungsten; Uranium; Vanadium; Ytterbium; Zinc; Zirconium.

### **SYNTHETIC ORGANIC CHEMICALS**

Acenaphthene; Acenaphthylene; Acetochlor; Alachlor (Lasso); Aldicarb; Aldicarb sulfone; Aldicarb sulfoxide; Aldrin; Ametryn; Anilazine; Anthracene; Aspon; Atraton; Atrazine; Azinphos-ethyl;  
Azinphos-methyl; Bendiocarb; Benfluralin; Benzo(a)anthracene; Benzo(b)fluoranthene; Benzo(k)fluoranthene; Benzo(a)pyrene; Benzo(g, h, i)perylene; alpha-Benzenehexachloride;  
beta-Benzenehexachloride; delta-Benzenehexachloride; gamma-Benzenehexachloride (Lindane); Bolstar; Bromacil; Butachlor; Butylate; Butylbenzylphthalate; Carbaryl; Carbofuran; Carbophenothion; Carboxin; Chlordane alpha, Chlordane gamma, Chlordane, Chlorfenvinphos; Chlorobenzilate; 2-Chlorobiphenyl; Chloroneb; Chloropropylate; Chlorothalonil; Chlorpropham; Chlorpyrifos; Chlorpyrifos methyl; Chrysene; Clomazone; Clopyralid; Coumaphos; Crotoxyphos; Cyanazine; Cycloate; 2,4-D; Dalapon; DCPA;  
4,4'-DDD; 4,4'-DDE; 4,4'-DDT; Deethylatrazine; Deisopropylatrazine; Demeton O; Demeton S; Desethylatrazine; Desisopropylatrazine; Diazinon; Dibenzo(a,h)anthracene; 1,2-Dibromo-3-chloropropane (DBCP); Di-n-butylphthalate; Dicamba; Dichlobenil; Dichlofenthion; Dichloran; 2,3-Dichlorobiphenyl; Dichlorvos; Dicrotophos; Dieldrin; Di (2-ethylhexyl) adipate; Di (2-ethylhexyl) phthalate; Diethylphthalate; Dimethoate; Dimethylphthalate; 2,4-Dinitrotoluene; 2,6-Dinitrotoluene; Dinoseb; Di-n-octylphthalate; Dioxathion; Diphenamid; Diquat; Disulfoton; Disulfoton sulfone; Disulfoton sulfoxide; Endosulfan I; Endosulfan II; Endosulfan sulfate; Endothall; Endrin; Endrin aldehyde; EPN; EPTC; Erucylamide; Esfenvalerate; Ethalfuralin; Ethion; Ethofumesate; Ethoprop; Ethylene dibromide (EDB); Etridiazole; Famphur; Fenamiphos; Fenarimol; Fenitrothion; Fenoxypop-ethyl; Fensulfothion; Fenthion;  
Fluazifop-butyl; Fluchloralin; Fluometuron; Fluoranthene; Fluorene; Fluridone; Fonofos; Glyphosate (Round-up); Heptachlor; Heptachlor epoxide; 2,2',3,3',4,4',6-Heptachlorobiphenyl; Hexachlorobenzene; 2,2',4,4',5,6'-Hexachlorobiphenyl; Hexachlorocyclopentadiene; Hexazinon; 3-Hydroxycarbofuran; Indeno(1,2,3-cd)pyrene; Iprodione; Isafenphos; Isophorone; Leptophos; Lindane; Malathion; Metalaxyl; Methoxychlor; Methomyl; 1-Methyl naphthalene; 2-Methyl naphthalene; Methyl paraoxon;  
Methyl parathion; Dual (Metolachlor); Metribuzin (Sencor); Metsulfuron methyl; Mevinphos; MGK-264 isomer a; MGK-264 isomer b; MGK-326; Mirex; Molinate; Monocrotophos; Naled; Naphthalene; Napropamide; cis-Nonachlor; trans-Nonachlor; Norflurazon;  
2,2',3,3',4,5',6,6'-Octachlorobiphenyl; Oryzalin; Oxadiazon; Oxamyl (Vydate); Oxyfluorfen; Parathion; Pebulate; Pendimethalin; Pentachlorobenzene; Pentachloronitrobenzene; 2,2',3',4,6-Pentachlorobiphenyl; Pentachlorophenol;  
  
cis-Permethrin; trans-Permethrin; Phenanthrene; Phorate; Phosmet; E-Phosphamidon; Z-Phosphamidon; Picloram (Tordon); Polychlorinated Biphenols (total); Profluralin; Prometon; Prometryn; Pronamide; Propachlor; Propanil; Propazine; Propiconazole isomer a; Propiconazole isomer b; Prothiofos; Pyrene; 2,4,5-TP(Silvex); Simazine; Simetryn; Stirofos; Sulfotep; 2,3,7,8-TCDD (Dioxin); Tebuthiuron; TEPP; Terbacil; Terbufos; Terbutryn; 1,2,4,5-Tetrachlorobenzene;  
2,2',4,4'-Tetrachlorobiphenyl; Thiabendazole; Thiobencarb; Thionazin; Toxaphene; Triademefon; Tribufos (DEF); 2,4,5-Trichlorobiphenyl; Trichloronate; Tricyclazole; Trifluralin; Vernolate; Vinclozolin.

### **VOLATILE ORGANIC CHEMICALS**

Acetone; Acrylonitrile; Allyl chloride; tert-Amyl methyl ether; Benzaldehyde; Benzene; Bromobenzene; Bromochloroacetic acid; Bromochloromethane; Bromoform; Bromomethane; 2-Butanone (MEK); n-Butylacrylate; tert-Butyl alcohol; n-Butylbenzene; sec-Butylbenzene; tert-Butylbenzene;

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**VOLATILE ORGANIC CHEMICALS, continued**

Carbon disulfide; Carbon tetrachloride; Chloroacetonitrile; Chlorobenzene; 1-Chlorobutane; Chlorodibromoacetic acid; Chloroethane; Chloromethane; Chloroprene; 2-Chlorotoluene (o-); 4-Chlorotoluene (p-); Crotonaldehyde; Cyclohexanone; Dibromomethane; 1,2-Dibromo-3-Chloropropane (DBCP); Decanal; Dibromoacetic acid; 1,3-Dichlorobenzene; 1,2-Dichlorobenzene; 1,4-Dichlorobenzene; trans-1,4-Dichloro-2-butylene; Dichlorodifluoromethane; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,1-Dichloroethylene; cis-1,2-Dichloroethylene; trans-1,2-Dichloroethylene; Di(2-chloroethyl)ether; Dichloromethane; 1,2-Dichloropropane; 1,3-Dichloropropane; 2,2-Dichloropropane; 1,1-Dichloropropene; 1,3-Dichloropropene; 1,1-Dichloropropylene; cis-1,3-Dichloropropylene; trans-1,3-Dichloropropylene; 1,4-Dioxane; Epichlorohydrin; Ethyl acrylate; Ethylbenzene; Ethyl ether; Ethyl methacrylate; Ethyl tert-butyl ether; Heptanal; Hexachlorobutadiene; Hexachloroethane; Hexanal; 2-Hexanone; Isopropylbenzene; 4-Isopropyltoluene (p-); Methacrylonitrile; Methylacrylate; Methyl iodide (Iodomethane); Methylmethacrylate; 4-Methyl-2-pentanone (MIBK); Methyl-t-butyl ether (MTBE); Monobromoacetic acid; Monochloroacetic acid; Naphthalene; Nitrobenzene; 2-Nitropropane; Nonanal; Octanal; Pentachloroethane; Propionitrile; n-Propylbenzene; Pyruvaldehyde (Methylglyoxal) Styrene; 1,1,1,2-Tetrachloroethane; 1,1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Tetrahydrofuran; Toluene; Tribromoacetic acid; 1,2,3-Trichlorobenzene; 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; Trichlorofluoromethane; 1,2,3-Trichloropropane; 1,1,2-Trichloro-1,2,2-trifluoroethane; 1,2,3-Trimethylbenzene; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; n-Valeraldehyde (Pentanal); Vinyl acetate; Vinyl chloride; Xylene, total.

**ESTROGENS AND OTHER HORMONES**

Diethylstilbestrol (DES); Estrone; 17alpha-Estradiol; 17beta-Estradiol; Estriol; 17alpha-Ethynyl estradiol; Progesterone; cis-Testosterone; trans-Testosterone.

**PHENOLIC ENDOCRINE DISRUPTORS**

Bisphenol A; Nonylphenol, isomer mix; 4-n-Octylphenol; 4-tert-Octylphenol; Pentachlorophenol; Phenylphenol; Tetrabromobisphenol A; 2,4,6-Trichlorophenol.

**NITROSAMINES**

N-Nitropyrrolidine (NPYR); N-Nitrosodi-N-butylamine (NDBA); N-Nitrosodiethylamine (NDEA); N-Nitrosodimethylamine (NDMA); N-Nitrosodi-N-propylamine (NDPA); N-Nitrosomethylethylamine (NMEA).

**PHARMACEUTICALS & PERSONAL CARE PRODUCTS**

Acetaminophen; Amoxicillin; Antipyrine; Aspirin; Azithromycin; Bacitracin; Bezafibrate; Caffeine; Carbadox; Carbamazepine; Chloramphenicol; Chlorotetracycline; Ciprofloxacin; Clofibric acid; DEET; Diclofenac; Dilantin, Diltiazem, Doxycycline, Enrofloxacin; Erythromycin; Fluoxetine (Prozac); Gemfibrozil; Ibuprofen; Lasalocid; Levothyroxine (Synthroid); Lincomycin; Monensin; Naproxen; Narasin; Nicotine; Norfloxacin; Oleandomycin; Oxytetracycline; Paraxanthine; Penicillin G; Penicillin V; Prednisone; Roxithromycin; Salinomycin; Simvastatin; Sulfachloropyridazine; Sulfadiazine; Sulfadimethoxine; Sulfamerazine; Sulfamethazine; Sulfamethizole; Sulfamethoxazole; Sulthiazole; Theobromine; Theophylline; Triclosan; Trimethoprim; Tylosin' Virginiamycin M1.

**UCMR-2**

Acetochlor; Alachlor; Metolachlor; Acetochlor ESA; Acetochlor OA; Alachlor ESA, Alachlor OA; Metolachlor ESA; Metolachlor OA; Dimethoate; 2,2',4,4',5,5'-Hexabromobiphenyl (HBB); 2,2',4,4',5,5'-Hexabromobiphenyl ether BDE-153); 2,2',4,4',5-Pentabromodiphenyl ether (BDE-99);

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**UCMR-2 continued**

2,2',4,4',6-Pentabromodiphenyl ether (BDE-100); Terbufos-sulfone; 2,2',4,4'-Tetrabromodiphenyl ether (BDE-47); 1,3-Dinitrobenzene; RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine); TNT (2,4,6-Trinitrotoluene).

**FLUOROPOLYMERS**

Perfluorocatanoic acid (PFOA); Perfluorobutanoic acid (PFBA).

**PHOSPHATE FLAME RETARDANTS**

Diphenylcresyl phosphate; 2-Ethylhexyldiphenyl phosphate; Tributyl phosphate; Triethyl phosphate; Tri-m-cresyl phosphate; Tri-o-cresyl phosphate; Tri-p-cresyl phosphate; Trimethyl phosphate; Tripentyl phosphate; Triphenyl phosphate; Tris(2-butoxyethyl) phosphate; Tris(2-chloropropyl) phosphate; Tris(2,3-dibromopropyl) phosphate; Tris(1,3-dichloro-2-propyl) phosphate; Tris(2-ethylhexyl) phosphate.

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For more information, please call the Milwaukee Water Works Water Quality section, (414) 286-2585.