DETROIT METRO • WILLOW RUN
WAYNE COUNTY AIRPORT AUTHORITY

2005

Water Quality Report

The Wayne County Airport Authority
wants to you to know the tap water
we supply our customers exceeds
all federal and state standards
for quality and safety.

2005 Consumer Confidence Report

Spanish (Espanol)
Este informe contiene informacion muy importante sobre la calidad de su agua beber.
Traduscalo o hable con alguien que lo entienda bien.

French (Francais)
Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez
en avec quequ'un qui le comprend bien.

Is my water safe?
Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA)
and state drinking water health standards. Local Water vigilantly safeguards its water supplies
and once again we are proud to report that our system has not violated a maximum contaminant
level or any other water quality standard.

Do I need to take special precautions?
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.
EPA/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 Water
Drinking Hotline (800-426-4791).

Where does my water come from?
Wayne County Airport Authority's water is supplied to us by multiple combination systems
connected to the City of Detroit's water sytem. Our water comes from the Detroit River via these
combination systems for delivery after treatment. It is then passed through four meter pit
locations around the airport property to it's final destination point of delivery.

Source water assessment and its availability
The 2005 Annual Report on Water Quality shows the sources of our water, and lists the results of
our tests and contains important information about water health.
We are pleased to show you how we have surpassed water quality standards as mandated by
the Environmental Protection Agency (EPA) and the State of Michigan Department of
Environmental Quality (MDEQ).

Why are there contaminants in my drinking water?

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). 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:
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, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for

How can I get involved?
Customers having questions may contact Jim Warner @ 734-942-3720. Between the hours of 7:00am to 3:30pm.

Results of voluntary monitoring
Total Coliform Bacteria tested weekly from four different service connections. No violations, and none detected. Met EPA and MDEQ requirements for the year of monitoring.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range Low	Range High	Sampl Date	Violation	Typical Source
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)								
Chlorine (as Cl2) (ppm)	4	4	0.35	0.2	0.45	2005	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	44	31	44	2005	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]	NA	80	37	36	37	2005	No	By-product of drinking water disinfection
Inorganic Contaminants								
Fluoride (ppm)	4	4	0.9	NA		2004	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium (optional) (ppm)		MPL	5	NA		2004	No	Erosion of natural deposits; Leaching
Microbiological Contaminants								
Fecal coliform/E. coli (positive samples)	0	0	0	NA		2005	No	Human and animal fecal waste

A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive.

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceed AL	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.0044	2005	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	0	2005	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Additional Monitoring

As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are

Name	Reported Level	Range	
		Low	High
Bromodichloromethane (ppb)	10	10	11
Bromoform (ppb)	1	1	1
Chlorodibromomethane (ppb)	4	4	4
Chloroform (ppb)	21	21	23

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
positive samples	positive samples/yr: The number of positive samples taken that year
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

Key to Detected Contaminants Tables		
Symbol	**Abbreviation for**	**Definition/Explanation**
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health.
MCL	Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	Maximum Residual Disinfectant Level	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
ppb	Parts per billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ppm	Parts per million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
n/a	Not applicable	
≥	More than or equal to	

WATER SAVING TIPS

Toilet leaks are the most common reason for water loss in a household. To determine if you have a leak, drop a little food coloring into the tank; DO NOT FLUSH. Wait for about 10-30 minutes; if the food coloring appears in the toilet bowl, you have a silent water leak.

An automatic dishwasher uses approximately between 9-12 gallons of water; washing dishes by hand can use as much as 20 gallons.

PROTECTING OUR SOURCE WATER

Keep fertilizers, pesticides and herbicides off of paved surfaces and out of drainage paths. When choosing a fertilizer, select a slow-release formula, one with a low phosphorous concentration.

Clean and repair vehicles ONLY in areas where spilled chemicals cannot flow toward storm drains.

Have your septic tank inspected if it shows signs of failure such as lush grass around the drain field and unpleasant odors.

About Our Water System…

The 2005 Annual Report on Water Quality shows the sources of our water, lists the results of our tests, and contains important information about water health.

The Wayne County Airport Authority and/ or the Detroit Water and Sewerage Department will notify you immediately if there is ever any reason for concern about our water. We are pleased to show you how we have surpassed water quality standards as mandated by the Environmental Protection Agency (EPA) and the State of Michigan Department of Environmental Quality (MDEQ).

The Wayne County Airport Authority, along with the majority of the surrounding communities, purchases water from the Detroit Water and Sewerage Department (DWSD). The Detroit Water Department provides drinking water to approximately 4.2 million people in 126 Michigan communities. The system uses water drawn from two intakes in the Detroit River, one to the north near the mouth of Lake St. Clair and the one to the south near Lake Erie. The water is directed to four large water treatment plants for processing. A fifth water treatment plant located in St. Clair County uses surface water from Lake Huron.

How Our Water Becomes Safe To Drink?

The treatment facilities operate 24 hours a day, seven days a week. The treatment process begins with disinfecting the source water with chlorine to kill harmful microorganisms that can cause illness. Next, a chemical called alum is mixed with the water to remove the fine particles that make the water cloudy. Alum causes the particles to clump together and settle to the bottom. Fluoride is also added to protect our teeth from cavities and decay.

The water then flows through fine sand filters called beds. These filters remove even more particles and certain microorganisms that are resistant to chlorine. Finally, a small amount of phosphoric acid and chlorine are added to the treated water just before it leaves the treatment plant. The phosphoric acid helps control the lead that may dissolve in the water from interior plumbing systems. The chlorine keeps the water disinfected as it travels through water mains.

In addition to a carefully controlled and monitored treatment process, the water is tested for a variety of substances before treatment, during various stages of treatment and throughout the distribution system. Hundreds of samples are tested each week in certified laboratories by highly qualified, trained staff. Detroit water not only meets safety and health standards but also ranks among the top 10 in the country for quality and value.

For more information please contact:

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