

2008 Water Quality Report and Conservation Information



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TINLEY PARK
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Proudly Presented by The Village of Tinley Park

Village of Tinley Park:

Providing and Conserving Quality Water

Providing the best quality water possible to our residents is a priority of the Village of Tinley Park. Equally important is conserving this precious resource so that we have enough water to drink, a safe supply to protect life and property from fire, and enough to nourish the environment around us.

The Village vigilantly safeguards your drinking water. We are proud to announce once again that our annual Water Quality Report for calendar year 2007 shows no violation of any contaminant or of any other quality standard. This report has determined that our Lake Michigan drinking water purchased from the City of Chicago meets or exceeds all water quality standards listed in the Safe Drinking Water Act and mandated by the federal and state branches of the Environmental Protection Agency. In addition, Tinley Park has established its own internal water quality goals to maintain excellent water quality.

The following information provides you with a summary of our water quality and information on where our water comes from and what it contains. It also contains numerous tips on how to conserve water to protect our environment and ensure that our Village maintains a safe supply.

Please remember that **every drop counts!**

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Additional copies of this report are available at the Village of Tinley Park Public Works Department and on our website at www.tinleypark.org



Thinking 'Green'

Conserving water isn't the only way to help the environment. More and more often, those who design and construct buildings, as well as the people who will occupy them, are realizing the importance of thinking "green."

Tinley Park is excited that two upcoming projects in our Village will be Leadership in Energy and Environmental Design-certified buildings—the new Fulton School and the new Panduit headquarters. LEED-certified buildings promote design and construction practices that reduce the negative environmental impacts of buildings and improve occupant health and well-being. The Village's Planning Department staff also advocates for green elements to be included in proposed projects, recommending items such as parking lot bioswales, green roofs, native landscape plantings, and walkability features and biking lanes for new developments.

Thank you to our residential, educational and business communities for taking measures to protect our environment. It benefits all of us.

Help keep our storm water clean

Water running off your property and into our storm sewers, retention ponds and local streams carries all of the contaminants in its path. Here are a few tips to keep our storm water clean:

- Use and store all household hazardous products properly. If you no longer need them, contact the Illinois Environmental Protection Agency at 217-785-8604 for disposal information.
- Buy non-toxic products for your home and garden.
- Use pesticides, herbicides and fertilizers carefully and sparingly.

Know your soil!

When determining the most effective method for watering your lawn, it is important to know what kind of soil you have.

If your home is more than 20 years old, it is likely that your lawn was grown with help from a layer of six inches or more of topsoil. For these older lawns, the advice to water deeply, not frequently, is beneficial. This is because your topsoil is able to absorb the water and put it to good use before it hits the harder clay beneath.

But, if your home is less than 20 years old, your lawn's topsoil layer is probably less than six inches

- Do not sweep clippings and debris into the streets.
- Divert rainspouts and other sources of runoff onto vegetation. One way to do this is to plant a rain garden.
- Dispose of pet waste in trash cans.
- Don't dump car maintenance fluids such as oil and antifreeze into the storm sewers.
- Don't litter. Litter finds its way to catch basins and storm drains, polluting the waterways.



deep. Tinley Park is built on clay soil. Ever notice water running over a sidewalk when someone in your neighborhood waters the lawn? That's because the clay is too dense to handle the amount of water being applied. Water percolates through the thin topsoil, hits the hard clay and rolls right off. A good strategy to counter this is to apply small amounts of water more than once. Try watering your lawn for no more than five to eight minutes. Let the landscape "rest" to give the water time to soak in and then water again for another five to eight minutes. Of course, regardless of your soil or watering strategy, please follow our conservation measures when sprinkling your lawn.

Understanding Water Quality Results

Where Does My Water Come From and How Is It Purified?

The Village of Tinley Park is supplied surface water from Lake Michigan. The Environmental Protection agency has found that the water quality of Lake Michigan has improved dramatically over the past 20 years. Lake Michigan, by volume, is the second largest of the Great Lakes and the only one located entirely in the United States. At the present time the City of Chicago and adjacent communities receive water from Lake Michigan.

The treatment process consists of a series of four steps. First, raw water is drawn from Lake Michigan and sent to an aeration tank, which allows for oxidation of the high iron levels that are present in the water. The water then goes to a mixing tank where polyaluminumchloride and soda ash are added. The addition of these substances cause small particles to adhere to one another (called floc), making them heavy enough to settle into a basin from which sediment is removed.

Chlorine is then added for disinfection. At this point the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is added again as a precaution against any bacteria that may still be present. We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste. Finally, soda ash (used to adjust the final pH and alkalinity), fluoride (used to prevent tooth decay), and a corrosion inhibitor (used to protect distribution system pipes) are added before the water is pumped to sanitized, underground reservoirs, water towers and into your home or business.

Water Quality Test Results

Contaminant (unit of measurement) (Tested By) Typical Source of Contaminant	MCLG	MCL	Highest Level found	Range of Detections	Date of Sample
Microbial Contaminants					
TOTAL COLIFORM BACTERIA (Tinley Park) Naturally present in the environment.	0%	0%	0% (0 out of 760 samples)		weekly
FECAL COLIFORM AND E. COLI (# pos/mo) Human and animal fecal waste	0	0	2	n/a	continuous
TURBIDITY (%<0.3 NTU) (City of Chicago) Soil runoff. Lowest monthly percentage meeting limit	n/a	TT/95%	100%	n/a	continuous
TURBIDITY (NTU) (City of Chicago) Soil runoff. Highest single measurement.	n/a	TT=1NTU _{max}	0.58	n/a	continuous
Inorganic Contaminants (Tested by City of Chicago)					
ARSENIC (ppb) Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.	0	10	.56	0.52-0.56	continuous
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.180	0.18 - 0.18	continuous
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.41	0.37 - 0.41	continuous
TOTAL NITRATE & NITRITE (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.42	0.37 - 0.42	continuous
Disinfectants\Disinfection By-Products (Tested by City of Chicago)					
TTHMs [TOTAL TRIHALOMETHANES] (ppb) By-product of drinking water disinfection	n/a	80	16.5-quarterly average	9.9 - 24.0	quarterly
HAA5 [HALOACETIC ACIDS] (ppb) By-product of drinking water disinfection	n/a	60	8.53-quarterly average	4.6 - 12.3	quarterly
CHLORINE (as C12) (ppm) Drinking water disinfectant	4	4	0.77	0.65 - 0.77	continuous
TOC [TOTAL ORGANIC CARBON] The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.					
Unregulated Contaminants (Tested by City of Chicago)					
SULFATE (ppm) Erosion of naturally occurring deposits.	n/a	n/a	20.6	19.1 - 20.6	continuous
State Regulated Contaminants (Tested by City of Chicago)					
FLUORIDE (ppm) Water additive which promotes strong teeth.	4	4	0.98	0.90 - 0.98	continuous
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	n/a	n/a	7.4	7.3 - 7.4	continuous
Radioactive Contaminants (Tested by City of Chicago)					
BETA/PHOTON EMITTERS (pCi/l) Decay of natural and man-made deposits.	0	50	2.000	nd-2.000	11/5/01
Additional Contaminants (Tested by City of Chicago)					
BORON (ppb) Erosion of naturally occurring deposits; Used in detergents and as a water softener; Used in production of glass, cosmetics, pesticides, fire retardants, and for leather tanning.			28.000	28.0 - 28.0	
MOLYBDENUM (ppb)			31.0	0 - 31.0	

Lead and Copper (Tested by Tinley Park)

LEAD Corrosion of household plumbing systems; Erosion of natural deposits	n/a	15 ppb	23.1	ND - 23.1	12/28/07
COPPER Corrosion of household plumbing systems; Erosion of natural deposits	n/a	1300 ppb	302	1.5 - 302	12/28/07

Regulated Contaminants	MCLG	MCL	Level found	Range of Detections	Units
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Disinfectants & Disinfection By-Products (Tested by Tinley Park)

TTHMs [Total Trihalomethanes] By-product of drinking water chlorination	80	80	45.4	22.2 - 45.4	ppb
Total Haloacetic Acids (HAA5) By-product of drinking water chlorination	60	60	24.7	8.2 - 24.7	ppb
Chlorine Water additive used to control microbes	4	4	1.2	.52 - 1.2	ppm

Definition of Terms

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Contaminant Level (MCL): 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.

Level Found: This column represents an average of sample results collected during the Consumer Confidence Report (CCR) calendar year. In some cases, it may represent a single sample if only one sample was collected.

Range of Detections: This column represents a range

of individual sample results, from lowest to highest, that were collected during the CCR calendar year.

Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Unit of Measurement:

ppm - Parts per million, or milligrams per liter
ppb - Parts per billion, or micrograms per liter
NTU - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

% - 0.5 NTU - Percent samples less than 0.5 NTU
pCi/l - Picocuries per liter, used to measure radioactivity
n/a - not applicable

Water Quality Data Table Footnotes:

TURBIDITY:

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

UNREGULATED CONTAMINANTS:

A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

FLUORIDE:

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 mg/l to 1.2 mg/l.

SODIUM:

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

Frequently Asked Questions

Why are there restrictions on the amount of water we can use?

In addition to ensuring that the Village has enough water for health, fire protection and environmental purposes, the allocation of Lake Michigan water is regulated by the Illinois Department of Natural Resources. Under state law and upheld by the U. S. Supreme Court, citizens are not allowed to consume an unlimited supply of water from the Great Lakes. The Oak Lawn water system, from which the Village of Tinley Park purchases water, has made improvements that will increase the amount of water we are able to receive, but allocation amounts are contractually limited. Also, it is the duty of responsible citizens to adhere to reasonable water conservation measures and preserve this precious resource.

I've seen other people watering during restricted hours. Why is that?

Some individuals are not aware of the regulations and others choose not to follow them. Those who knowingly violate the conservation measures can face fines up to \$500 per infraction. To report a concern about water misuse, call the Public Works Department at 708-444-5500 or send an e-mail through the Village's Web site at www.tinleypark.org.

How does the Village choose the water conservation hours?

The hours between 7 to 11 a.m. and 7 to 11 p.m. are during periods of the day with limited sun exposure, minimizing the water lost to evaporation. Limiting the number of days for sprinkling also is more healthful for your lawn, since over-watering can do more harm than good. If hot and dry weather conditions jeopardize the critical maintenance of at least a 50 percent supply in our water storage, implementation of more limited measures will go into effect.

How will I know what conservation hours are in effect?

Updated information on the Village's current conservation measures are posted on color-coded signage throughout town, on the Village's Web site at www.tinleypark.org, and available by calling the Public Works Information Line at 708-444-5555.

What if I have newly installed landscaping or sod?

You may qualify for a special permit to allow additional watering of your new landscaping. Please call the Public Works Department at 708-444-5500 for more information.

Why does the water have a chlorine taste and smell? What can I do to remove it?

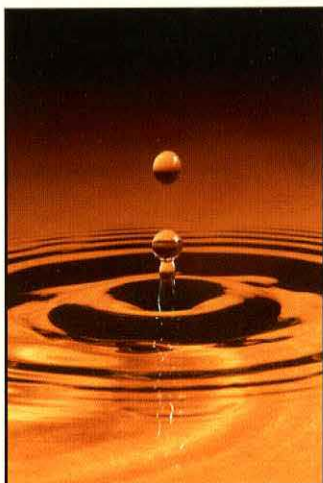
Chlorine is the disinfecting agent used by most public water systems to kill bacteria during the water treatment process. A small amount is left in the water that reaches your home to inhibit microbial growth in the piping. This amount can vary with the time of year and condition of raw Lake Michigan water. To remove the chlorine taste or smell, fill a clean pitcher or container with cold tap water and leave it uncovered overnight. The chlorine content will dissipate.

What is the material left behind after water boils or evaporates?

This material, commonly called scale, is the natural mineral content of Chicago water. It is mainly calcium carbonate, the component of common blackboard chalk. It can most easily be removed with household vinegar.

What causes the tiny air bubbles or cloudiness in my water?

This condition occurs most often when water is very cold and then warms up while in a building's interior piping. Cold water can hold more air than warm water. Therefore, some air comes out of solution as tiny air bubbles when the water warms up. At time, the water may be so densely filled with air that the water appears cloudy. An easy way to check the cause of cloudiness is to fill a clear glass with water, set it on a table and watch. If the cloud rises from bottom to top, it is air escaping as the water warms. If the cloud sinks from the top to the bottom, you may have a sediment problem. If you believe that you have a sediment problem, please contact the Public Works Department.



Water is a Precious Natural Resource. Thank You for Using it Wisely.

Water conservation benefits all of us and helps prevent water shortages. To maintain a safe water supply for health, fire protection and environmental purposes, the Village of Tinley Park is again following crucial water conservation measures.

WATER CONSERVATION MEASURES

Between May 15 and September 15

Outdoor Water Use Allowed:

7 a.m. to 11 a.m. & 7 p.m. to 11 p.m.

On Odd or Even Dates based on
Odd or Even Address

Tinley Park provides water to more than 23,000 homes and businesses through an elaborate system of reservoirs, pumps and computers managing the flow of water. While the Village typically uses an average of

nine million gallons of water every day, consumption can reach as high as 18 million gallons during peak days in summer.

Because consumption rises dramatically during these warmer months, it is absolutely critical to maintain at least 50 percent of capacity in our water storage system to ensure safe drinking water and proper fire protection capabilities. We can do this by following our conservation measures as well as other conservation tips provided in this publication.

If changing weather conditions should warrant implementation of our next levels of water conservation measures, residents will be notified with color-coded signage placed throughout the Village. Your cooperation is appreciated.

Water on ODD or EVEN days based on last digit of your address ONLY 7-11 am & 7-11 pm	WATER on ODD or EVEN Days based on the LAST DIGIT of Address 7-11 PM ONLY	Watering Allowed One Day per week GARBAGE DAY ONLY 7-11 AM/7-11 PM	NO OUTDOOR WATERING ALLOWED
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Conserve Water and Have a Healthy Lawn

Watering your lawn frequently not only wastes water, but also promotes shallower root systems, weeds and crabgrass. Here are some tips for conserving water and having a healthy lawn:

- Water deeply, not frequently. Your lawn will be healthier if it receives about one inch of water every three to four days. Providing more will over-saturate the soil, causing water to run off.
- Make sure you are watering your lawn, not the street or sidewalk. Water that falls on pavement goes into our sewer systems, increases your water bill and wastes water.
- Use a rain gauge. Rain gauges will tell you how much rain has fallen and how much more water, if any, you should add by sprinkling the lawn.
- Sprinklers are available with dials that can be set to water specific amounts at specific times. You can

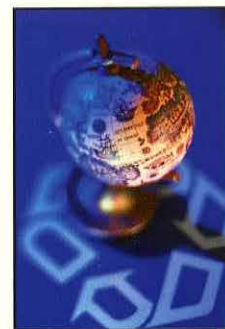
purchase them at your local hardware store or garden center.

- If you have an automatic system, make sure it has a rain sensor installed. This will prevent the system from running during rainstorms, which are critical times for our water system to recharge.
- Place a layer of mulch around trees and plants to retain water.
- If you are able, water your lawn in the early morning to avoid evaporation.

In addition, you can limit the need for sprinkling by setting your mower to cut the grass higher, avoiding excess nitrogen during warm weather, limiting traffic over the lawn, improving turf rooting, controlling thatch and soil compaction, and avoiding pesticide use on stressed lawns.

Conserving Water Inside Your Home

Please remember that while it is critical to be conservative with water use outside your home, it is also important to conserve water inside your home as well. Here are some ways to limit indoor water use, which helps the environment and lowers your water bills:



- Repair dripping faucets and leaky toilets. A leaky faucet can waste up to 2,000 gallons of water per year. A leaky toilet wastes more than 200 gallons of water per day.
- Fill a pitcher with tap water and put it in the refrigerator rather than running the tap at length every time you want a cold drink.
- Turn off the water while brushing your teeth, shaving or washing your face, which saves between 10 and 20 gallons of water per person, per week.
- Take shorter showers. Approximately 15 to 25 gallons of water is used in the average five-minute shower.
- Don't let the water run constantly while washing or rinsing dishes.
- Run the dishwasher or washing machine only when there is a full load or use the low water level features.
- Consider composting food waste instead of running your garbage disposal. A disposal uses one gallon of water per minute, and compost makes a great soil conditioner.
- Install low-flow toilets, showerheads and faucet aerators and you will save thousands of gallons of water per year. The largest use of indoor water is to flush the toilet and, after that, to take showers and baths.

Fact: Of all the water produced for human consumption, less than one percent is actually consumed. Nearly 40 percent of our water is used outdoors for landscaping and cleaning, another 30 percent is flushed down the toilet, almost 19 percent goes down the drain during showers and baths, and about 10 percent is used for washing our clothes and dishes. This leaves about one percent for cooking and drinking.

(Information courtesy of University of Illinois Extension)

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