



WATER WITHDRAWAL PERMIT APPLICATION

Michigan
Department of Environmental Quality

Required under Part 327 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Failure to follow the provisions of the act may result in a civil fine up to \$1,000.

Please PRINT the following information:

I. Facility Information		Contact Information	
Facility or Company Name City of Grosse Pointe Park	Contact Person Dale Krajniak, City Manager	Phone (313) 822-4281	
Sub-Facility Name (if applicable) Water Treatment Plant (Proposed)	Mailing address 15115 East Jefferson Avenue		
Facility County Wayne	City / State / Zip Grosse Pointe Park, Michigan 48230		
Facility Township(s) Grosse Pointe Township	Email address KRAJNIAKD@grossepointepark.org		

II. Proposed Water Withdrawal Information (see instructions)

a. Water Source and Pump Information			
1. Name of Water Source	2. Water Source Type (choose one)	3. Pump Capacity	4. Location
Lake St. Clair	<input type="checkbox"/> Groundwater <input type="checkbox"/> Inland Surface Water <input checked="" type="checkbox"/> Great Lakes or Connecting Waterways	3.9 Million Gallons per Day	Latitude: 42.3851 Longitude: -82.9284
b. Proposed Maximum Withdrawal Anticipated Withdrawal Volumes in MILLIONS OF GALLONS			
January	February	March	April
120.9	109.2	120.9	117
July	August	September	October
120.9	120.9	117	117
November	December	January	February
117	120.9	117	120.9
c. Primary Purpose of Use (choose one)			
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Industrial / Manufacturing	<input type="checkbox"/> Public Water Supply	<input checked="" type="checkbox"/> Quarry / Mining / Dewatering
		<input type="checkbox"/> Electric Power Generation	<input type="checkbox"/> Lake Augmentation
			<input type="checkbox"/> Other
Description :			

III. Proposed Return Flow Discharge Information

a. Name of Discharge Location	b. Receiving Water Type (choose one)	c. Location	d. Total Discharge Volume or Rate
City of Detroit Wastewater Treatment Plant	<input type="checkbox"/> Groundwater <input type="checkbox"/> Inland Surface Water <input checked="" type="checkbox"/> Great Lakes or Connecting Waterways	Latitude: 42.2841 Longitude: -83.1295	90% <input type="checkbox"/> Millions of Gallons Per Day, or <input checked="" type="checkbox"/> Percentage of Proposed Withdrawal

IV. Evaluation of Existing Hydrological and Hydrogeological Conditions

Please attach documentation of existing hydrological and hydrogeological conditions, and an evaluation of the predicted effects of the proposed withdrawal.

V. Environmentally Sound and Economically Feasible Water Conservation Measures

Please attach documentation self-certifying the water use conservation measures applicable to your water use sector that are currently in place or that you intend to incorporate into operation of the proposed withdrawal. Water Use Conservation Measures are available online at <http://www.michigan.gov/wateruse>.

VI. Decision-Making Standard of the Great Lakes – St. Lawrence River Basin Water Resources Compact

Please attach documentation describing how the withdrawal will be implemented such that the following criteria are met:

1. All water withdrawn shall be returned, either naturally or after use, to the source watershed less an allowance for consumptive use;
2. The withdrawal will be implemented so as to ensure it will not result in significant individual or cumulative adverse impacts to the quantity or quality of the waters and water dependent natural resources of the source watershed and the Great Lakes;
3. The withdrawal will be implemented so as to incorporate Environmentally Sound and Economically Feasible Water Conservation Measures;
4. The withdrawal or consumptive use will be implemented so as to ensure that it is in compliance with all applicable municipal, State and federal laws as well as regional interstate and international agreements, including the Boundary Waters Treaty of 1909;
5. The proposed use is reasonable under common law principles of water law in Michigan, and based upon a consideration of the following factors:
 - a) Whether the proposed withdrawal is planned in a fashion that provides for efficient use of the water, and will avoid or minimize the waste of water;
 - b) If the proposal is for an increased withdrawal, whether efficient use is made of existing water supplies;
 - c) The balance between economic development, social development and environmental protection of the proposed withdrawal and use and other existing or planned withdrawals and water uses sharing the water source;
 - d) The supply potential of the water source, considering quantity, quality, and reliability and safe yield of hydrologically interconnected water sources;
 - e) The probable degree and duration of any adverse resource impacts caused or expected to be caused by the proposed withdrawal under foreseeable conditions, to other lawful consumptive or non-consumptive uses of water or to the quantity or quality of the waters and water dependent natural resources of the Basin, and the proposed plans and arrangements for avoidance or mitigation of such impacts; and,
 - f) Consideration as to the need for the proposal to include restoration of hydrologic conditions and functions of the source watershed.

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WATER WITHDRAWAL PERMIT APPLICATION, continued

<p>VII. Does this facility hold a permit issued under Part 31 for a cooling water intake structure?</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>Please attach a copy of the signed Part 31 discharge authorization, certificate of coverage, or other substantiating documentation.</p>	<p>VIII. Permit Application Return and Payment</p> <p>I understand that my signature constitutes a legal agreement as to the accuracy and truthfulness of the information provided in this application. Further, I certify as to compliance with the Water Conservation Measures identified in Section V of the permit application.</p> <p align="center"><i>[Signature]</i></p> <p>Owner or authorized representative's signature Date</p>
<p>When completed, mail this form and a \$2,000.00 permit application fee to the address below. Please make your check payable to STATE OF MICHIGAN (do not send cash).</p>	
<p>RETURN TO:</p> <p align="center">MICHIGAN DEPT. OF ENVIRONMENTAL QUALITY CASHIER'S OFFICE - WURF PO BOX 30657 LANSING, MI 48909-8157</p>	

<p>FOR DEQ CASHIER'S OFFICE USE ONLY:</p> <p align="center">60000-42248-9175</p>	<p align="center">585020-12-1 07/31/15 60000 42248 9175 AY 2015 \$2,000</p>
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WATER WITHDRAWAL PERMIT APPLICATION

CITY OF GROSSE POINTE PARK

IV. Evaluation of Existing Hydrological and Hydrogeological Conditions

The City of Grosse Pointe Park (City) currently receives its drinking water from the City of Detroit Water and Sewerage Department (DWSD). The DWSD obtains its drinking water from the Detroit River, which is part of the Lake Erie Watershed. The City intends to disconnect from the DWSD system and establish its own water system source.

The proposed drinking water intake for the City will withdraw water from Lake St. Clair. Lake St. Clair is part of the Lake Erie Watershed. The proposed maximum water withdrawal of 3.9 million gallons per day (mgd) would be offset by a corresponding decrease in water withdrawal from the DWSD system.

V. Environmentally Sound and Economically Feasible Water Conservation Measures

The City fully endorses the Generally Accepted Water Management Practices for the Public Water Supply Sector developed by the Michigan Section-American Water Works Association. The City hereby self certifies that it will incorporate these practices into the operation of its proposed public water supply intake and distribution system.

VI. Decision-Making Standard of the Great Lakes – St. Lawrence River Basin Water Resources Compact

1. All water withdrawn shall be returned, either naturally or after use, to the source watershed less an allowance for consumptive use.

The City will send all the water from its proposed public water supply intake, minus irrigation water and consumptive use, to the City of Detroit Wastewater Treatment Plant. All the water, minus the irrigation water and consumptive use, will be returned to the Detroit River which is part of the Lake Erie watershed. Irrigation water will be discharged to the ground and will remain within the Lake Erie watershed.

2. The withdrawal will be implemented so as to ensure it will not result in significant individual or cumulative adverse impacts to the quantity or quality of the waters and water dependent natural resources of the source watershed and the Great Lakes.

The proposed withdrawal of 3.9 million gallons per day (MGD) corresponds to a daily withdrawal of 5.214×10^5 cubic feet per day (ft³/day) or 1.903×10^8 cubic feet per year (ft³/year). The surface area of Lake St. Clair is 430 square miles, or 1.199×10^{10} ft². Assuming a consumptive use of 10 percent, a withdrawal of 1.903×10^8 cubic feet per year (ft³/year) would result in a projected loss of water from Lake St. Clair of 1.903×10^7 ft³/year. Assuming no recharge to Lake St. Clair, the consumptive use loss is projected to cause a reduction in lake level of 0.001587 feet (0.0190 inches or 0.04838 centimeter).

This analysis does not account for the fact that the public water supply intake by the DWSD system would be reduced by approximately 3.9 million gallons per day after

construction of the City's public water supply intake. Therefore, it is the City's conclusion that the proposed water withdrawal will not adversely impact the quantity of the water of Lake St. Clair.

The proposed water withdrawal by the City is not anticipated to result in an adverse impact to the Lake Erie watershed. Currently, all the drinking water distributed to the City by the DWSD, is returned to the DWSD Wastewater Treatment Plant, minus the irrigation water and consumptive use. After construction of the proposed public water supply intake, all the drinking water distributed to the residents of Grosse Pointe Park, will be returned to DWSD, minus the irrigation water and consumptive use. Thus, the quality of the wastewater flow from the City, after treatment and discharge via DWSD into the Detroit River and Lake Erie watershed, should not be different from the existing condition.

3. The withdrawal will be implemented so as to incorporate Environmentally Sound and Economically Feasible Water Conservation Measures.

The City fully endorses the Generally Accepted Water Management Practices for the Public Water Supply Sector developed by the Michigan Section-American Water Works Association. The City hereby self certifies that it will incorporate these practices into the operation of its proposed public water supply intake and distribution system.

4. The withdrawal or consumptive use will be implemented so as to ensure that it is in compliance with all applicable municipal, State and federal laws as well as regional interstate and international agreements, including the Boundary Waters Treaty of 1909.

The City's proposed public water supply intake is subject to all applicable State and federal laws, regional interstate and international agreements, including the Boundary Waters Treaty of 1909. The project's resultant consumptive use will be implemented in accordance with all applicable laws, regulations, rules, and treaties.

5. The proposed use is reasonable under common law principals of water use in Michigan, and based upon a consideration of the following factors:

- a) Whether the proposed withdrawal is planned in a fashion that provides for efficient use of the water, and will avoid or minimize the waste of water.

The proposed public water supply intake will be a new system with new piping and associated new water treatment system infrastructure. The construction of a new public water supply intake and water treatment system will provide for efficient delivery of water to the residents of Grosse Pointe Park and thus will minimize the risk of wasting water due to losses from the system.

- b) If the proposal is for an increased withdrawal, whether efficient use is made of existing water supplies.

Although the proposal is for a new public water supply intake, the proposal should not result in a net increase in water withdrawal from the Lake Erie watershed due to the fact that the City currently receives its drinking water from the DWSD system

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which withdraws its water from the Detroit River, a part of the Lake Erie watershed. The proposed water withdrawal associated with construction of a new public water supply intake for the City will be offset by a commensurate decrease in the volume of water withdrawn from the Detroit River by the DWSD system.

- c) The balance between economic development, social development and environmental protection of the proposed withdrawal and use and other existing or planned withdrawals and water uses sharing the water source.
The existing balance between economic development, social development, and environmental protection would not be changed in any significant way under this proposed water withdrawal and use. Existing and planned withdrawals and uses sharing Lake St. Clair should not be adversely impacted due to the relatively small volume of water proposed for withdrawal from Lake St. Clair.
- d) The supply potential of the water source, considering quantity, quality, and reliability and safe yield of hydrologically interconnected water sources.
Lake St. Clair has a large water supply potential. The proposed public water supply for the City is estimated to draw down the water level of Lake St. Clair 0.0190 inches on an annual basis, conservatively assuming no recharge to the watershed.
- e) The probable degree and duration of any adverse resource impacts caused or expected to be caused by the proposed withdrawal under foreseeable conditions, to other lawful consumptive or non-consumptive uses of water or to the quantity or quality of the waters and water dependent natural resources of the Basin, and the proposed plans and arrangements for avoidance or mitigation of such impacts.
The probable degree and duration of any adverse resource impacts associated with construction of the proposed public water supply intake are anticipated to be truly minimal. The decrease in the water level of Lake St. Clair will be imperceptible. The proposed public water supply intake will not adversely impact other lawful consumptive or non-consumptive uses of the water or the quantity or quality of the water and water dependent natural resources of the Basin. In consideration of these realities, the City's opinion is that a plan for avoidance or mitigation of adverse impacts is not deemed needed.
- f) Consideration as to the need for the proposal to include restoration of hydrologic conditions and functions of the source watershed.
This proposal does not include restoration of hydrologic conditions and functions of the source watershed because there will be no perceptible change to the hydrologic conditions and functions of the source watershed. Therefore, it is the City's opinion that a proposal for restoration of hydrologic conditions and functions of the source watershed is not deemed needed.

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Department of Environmental Quality, Water Bureau

WATER WITHDRAWAL PERMIT

Issued under Part 327

Great Lakes Preservation, Natural Resources and Environmental Protection Act
1994 PA 451, as amended

In accordance with Part 327, Great Lakes Preservation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), authority is hereby given to withdraw water from the waters of the State of Michigan as described herein. This permit is issued and revised in reliance on information supplied in the corresponding application and other information as may have been supplied by the permit applicant in support of that application.

PERMIT NUMBER: **2015-001**

DATE ISSUED: xxxxx

Permittee Name and Address (Revised): Dale Krajniak
City of Grosse Pointe Park
15115 East Jefferson Avenue
Grosse Pointe Park, Michigan 48230

Location Information

County where Water Withdrawal is Located: Wayne County
Town, Range and Section: T02S R13E, Section 5 (Private Claims)

The activity authorized by this permit is subject to the following limitations and conditions:

Section A. Authorizations and Coverage Provisions

- 1. Water Withdrawal is restricted to the following sources, locations and rates above the baseline capacity established with the DEQ:**

Source	Latitude and Longitude	Withdrawal Rate	Purpose of Use
Lake St. Clair	42.3581°, -82.9284°	3.9 million gallons per day	Public water supply

2. Approval Conditions

This permit requires the permittee to maintain compliance with all applicable local, state, and federal laws including, but not limited to, obtaining a permit under the Safe Drinking Water Act, Act 399 PA 1976, as amended and Administrative Rules, Supplying Water to the Public, prior to commencing with the construction of any facilities necessary to implementation of the withdrawal.

Section B. Reporting and Record Keeping

1. Environmental Impacts

The permittee is required to immediately report to the DEQ, Water Resources Division, Great Lakes Shorelands Unit (GLSU) at 517-284-5563 if an Adverse Resource Impact (ARI), as defined in Subsection 32701(1)(a)(vii) of Part 327 occurs as a result of the water withdrawal authorized by this permit.

2. Public and Private Rights Impacts

The permittee is required to immediately report to the DEQ, Water Resources Division, GLSU at 517-284-5563 if any violation of public or private rights occurs as a result of the water withdrawal authorized by this permit.

3. Water Use Report

The permittee is required to submit annual water use reports to the State of Michigan by April 1 of each year. Reports shall be filed with the DEQ Community Water Supply Program per the requirements of the Safe Drinking Water Act, Act 399 PA 1976, as amended and Administrative Rules, Supplying Water to the Public.

Section C. Liability

1. Noncompliance

Commencing the water withdrawal authorized herein confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit. Noncompliance with these terms and conditions, and/or the initiation of other regulated activities not specifically authorized by this permit, shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, the DEQ may initiate civil proceedings to correct deficiencies, protect natural resource values, and secure compliance with law.

2. Limitations

This permit does not authorize causing an ARI as defined in Subsection 32701(1)(a) of Part 327 of the NREPA as a result of the withdrawal.

This permit does not convey property rights in water, or other real or personal property, authorize any injury to private property or invasion of public or private rights, or waive the necessity of obtaining any other applicable federal, state or local permit or approval.

3. Indemnification

The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representatives of the permittee, undertaken in connection with this permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.

Dan Wyant, Director
Department of Environmental Quality

By: Diana Klemans, Chief
Surface Water Assessment Section
Water Resources Division