

**LAFARGE PRESQUE ISLE QUARRY
APPLICATION FOR A WATER WITHDRAWAL**

**PERMIT DECISION
And
RESPONSE TO PUBLIC COMMENTS**

August 30, 2012

**Michigan Department of Environmental Quality
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EXECUTIVE SUMMARY

LAFARGE PRESQUE ISLE QUARRY APPLICATION FOR A WATER WITHDRAWAL

On May 3, 2012 the Department of Environmental Quality (DEQ) received from Lafarge Presque Isle Quarry (Lafarge) a water withdrawal permit application submitted under Part 327, Great Lakes Preservation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The permit application was for a proposed increase in water withdrawal capacity for dewatering of an active limestone quarry.

Section 32723(4) of Part 327 requires the DEQ provide for a public comment period of not less than 45 days before a permit application is acted upon. The DEQ announced the permit application and invited public comment via public notice and website posting on July 2, 2012. A copy of the public notice was transmitted to Lafarge for posting at a nearby locality that is accessible to the public. Public comments were accepted by DEQ until August 15, 2012. There were no public comments received on this permit application.

On August 30, 2012 the DEQ rendered a decision in favor of permit issuance. It was concluded that all conditions for approval under Section 32723(6) have been met, and that no adverse resource impacts would occur. This document includes the basis of the decision for issuance of a permit to Lafarge for an increase in water withdrawal capacity of 2,200 gallons per minute (3.168 million gallons per day).

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I. BACKGROUND

Proposed Withdrawal

The proposed withdrawal will be for an increase in capacity of 2,200 gallons per minute (3.168 million gallons per day) over existing water withdrawal capacity at an active limestone quarry. The permit applicant, Lafarge Presque Isle Quarry (Lafarge), proposes to use the withdrawal to dewater the quarry pit to allow for mining expansion within the property. Water that currently flows by gravity to a discharge pumping station would be rerouted to allow mining to take place. The proposed withdrawal would accomplish the rerouting, and replace the existing gravity drainage to the discharge outfall. Total dewatering withdrawals and discharge volumes from the quarry would remain unchanged. The consumptive use rate for dewatering withdrawals is minimal, and the total withdrawal is not an increase over the existing rate, therefore the estimated water loss from the Great Lakes hydrologic system is negligible. The proposed withdrawal point would be located at approximately 45.29775° latitude and -83.44631° longitude, in section 34 of Presque Isle Township, T34N R08E, Presque Isle County.

It is noted that the permit application supporting documentation contained an error in the description of the discharge volume to Outfall 003. The annual discharge to Outfall 003 is mistakenly stated as 3.8 million gallons when it should instead be 380 million gallons.

II. STATUTORY STANDARD

A person who proposes to develop withdrawal capacity of 2 MGD or more from the waters of the state to supply a common distribution system, is required to obtain a water withdrawal permit prior to making the withdrawal (MCL 324.32723[1]).

Application Submittal

A person proposing a withdrawal from the waters of the state is required to apply for a permit by submitting an application for the withdrawal to the DEQ containing the following information (MCL 324.32723[2]):

- Capacity of equipment used to make the withdrawal;
- Location of the withdrawal;
- Withdrawal source, including depth and geologic stratum if the source is groundwater;
- Amount and rate of withdrawal;
- Intended maximum monthly and annual volumes and rates, if different from the capacity of equipment used to make the withdrawal;
- Relevant information related to seasonal use;
- Description of how the water will be used and location, amount and rate of return flow;
- Any other information the person would like the DEQ to consider.

The application is required to include an evaluation of existing hydrological and hydrogeological conditions and a detailed description of any proposed preventative measures where relevant. In addition, the applicant is required to submit an application fee in the amount of \$2000.00

Administrative Requirements

MCL 324.32723 requires that a permit application is considered administratively complete 30 days after receipt by the DEQ, unless the applicant is notified of deficiencies in the application requiring additional information. The DEQ is required to provide a public comment period of not less than 45 days prior to acting on an application, and shall render a decision within 120 days of receipt of an administratively complete application.

The DEQ received the permit application from Lafarge on May 3, 2012. The application was determined to be administratively complete, and DEQ sent a letter and public notice document

to Lafarge on June 25, 2012 notifying them of the 45-day public comment period and the requirement to post the notice at a nearby locality that is accessible to the public.

The DEQ announced the permit application and invited public comment on the permit application via public notice and website posting on July 2, 2012. Comments were accepted by the DEQ until August 15, 2012.

The consumptive use estimate does not exceed the 5 MGD threshold established in the Great Lakes – St. Lawrence River Basin Water Resources Compact (Compact), for proposals requiring prior notice and consultation with the other Great Lakes states and provinces. Accordingly, management and regulation of the withdrawal is at the discretion of Michigan, and no notification was made to the states party to the Compact, or to the provinces party to the international Great Lakes – St. Lawrence River Basin Water Resources Agreement.

Conditions Required for Issuance of a Permit

The DEQ shall issue a permit for a water withdrawal if all of the following conditions are met (MCL 324.32723[6]):

- All water withdrawn, less any consumptive use, is returned to the source watershed;
- The withdrawal is implemented to insure there is no individual or cumulative adverse resource impact (ARI) based upon an evaluation of available information by the DEQ;
- The withdrawal will be implemented in compliance with all applicable local, state, and federal laws, as well as legally binding regional interstate and international agreements;
- The proposed use is reasonable under common law principles;
- The permit applicant certifies compliance with the environmentally sound and economically feasible water conservation measures (WCM) applicable to the water use sector;
- The proposed withdrawal does not violate public or private rights and limitations imposed by Michigan water law or other common law duties.

Parallel conditions for approval given in Section 4.11, Decision Making Standard, of the Compact are also required to be met for a decision in favor of permit issuance. Section 4.11(5) of the Compact provides greater specificity on reasonable use conditions and requires the parties to consider efficient use of the water; efficient use of existing water supplies; the balance between economic and social development and environmental protection as they relate to other planned withdrawals and uses sharing the same source; supply potential of the water source; the degree and duration of likely adverse impacts and the restoration of hydrologic conditions.

III. DECISION MAKING PROCESS

Adverse Resource Impacts

Section 32721(1) of Part 327 prohibits a person from making a “new or increased large quantity withdrawal from the waters of the state that causes an adverse resource impact.” Section 32701(1)(a) defines an adverse resource impact (ARI) as decreasing the flow of a stream or river such that its ability to support characteristic fish populations is functionally impaired, or decreasing the level of a lake or pond through a direct withdrawal that would impair the uses made of the lake or pond, including its ability to support characteristic fish populations. Section 4.11(2) of the Compact requires that a proposed withdrawal will be implemented so as to ensure it will result in no significant individual or cumulative adverse impacts to the quantity or quality of the waters and water dependent natural resources of the Great Lakes Basin.

The potential for an ARI as a result of the Lafarge proposed withdrawal is unlikely. As stated previously, the proposed withdrawal is not an increase over existing dewatering withdrawals.

Regardless, the Water Withdrawal Assessment Tool model was used to predict potential adverse impacts to nearby streams and rivers as a result of the proposed withdrawal as if it were a new and increased withdrawal. The model was run characterizing the proposed dewatering withdrawal both as a groundwater and as a surface water withdrawal from the artificially created quarry pond. In each case the assessment model indicated an ARI is not likely to result. Furthermore, dewatering withdrawals result in minimal consumptive use as virtually all water withdrawn is discharged to a nearby water body, and because the proposed withdrawal would not increase over the existing rate, the estimated water loss from the immediate watershed and the Great Lakes hydrologic system is negligible. The DEQ concluded the impact of the proposed withdrawal is not likely to result in an ARI as defined in Part 327, nor will it result in any significant individual or cumulative adverse impacts to the quantity and quality of the waters and water dependent natural resources of Lake Huron or its watershed, as required in the Compact.

Consumptive Use Considerations

The proposed withdrawal is not intended to increase the amount of water withdrawn. Rather, the proposed withdrawal is required to replace existing gravity flow of water that will be interrupted by the expansion of the quarry. Therefore, there is no anticipated increase in consumptive use of water at the quarry as a result of the proposed increase in withdrawal capacity.

Conservation Measures

As a condition of approval of a proposed withdrawal, the applicant must self-certify that they are in compliance with the water conservation measures associated with the applicable water user's sector or with measures developed for that specific withdrawal. Lafarge has certified that their current operation is in compliance with the water conservation measures developed by the Michigan Aggregates Association and accepted by the DEQ, and that future operations made possible by the proposed withdrawal will continue to be in compliance with these measures.

Reasonable Use

A proposed withdrawal must be deemed reasonable under common law principles of Michigan water law, and as required in the Compact as a condition of approval. The specific criteria for consideration are outlined below, and are consistent with Michigan's test for determining reasonable use as set forth in Michigan Citizens for Water Conservation v. Nestlé Waters of North America, Inc. [Michigan Citizens for Water Conservation v Nestlé Waters N America Inc, 269 Mich App 25; 709 NW2d 174 (2005)]. The considerations for reasonable use are addressed as follows:

Efficiency of the Proposed Water Use: This requirement is tied to the user's commitment to Environmentally Sound and Economically Feasible Water Conservation Measures (WCM) in the future operation of the withdrawal. In the application process Lafarge indicated they are currently in compliance with the WCM applicable to the aggregate mining sector, and commit to continued compliance which will avoid or minimize the waste of water.

Efficient Use of Existing Water Supplies: Efficient use of existing water supplies and withdrawal capacity is an essential consideration when an increased withdrawal is proposed. It is intended to assure that water is being efficiently used by a large quantity user before they are granted approval for an increased withdrawal. This provision is not applicable to the Lafarge proposal, as it is not an increase in withdrawal or consumptive use.

Balance between Economic Development, Social Development and Environmental Protection: The reasonableness of a water use relates to the balance between economic development, social development and environmental protection and is an important consideration in the acceptability of a proposed withdrawal. Evaluating this balance for the Lafarge proposed

increase in withdrawal capacity is relatively simple due to the anticipated low degree of adverse environmental impacts, and the positive economic and social development effects. The quarry has a well-established history and place in the community, and the proposed withdrawal will allow for continued productivity and utilization of the natural resource.

Supply Potential of the Water Source: The impact of the proposed withdrawal on the quantity, quality, reliability, and safe yield of hydrologically interconnected water sources is considered in the review process. Lafarge has indicated they are in full compliance with all water quality regulations and measures related to the operation of the quarry. DEQ records related to the facility's NPDES permit include a March 12, 2012 memo from Ryan Blazic, Cadillac District, Gaylord Unit, stating that there are no known outstanding noncompliance issues at the facility. The proposed withdrawal from within the quarry pit does not present any known or anticipated threat to the quantity or quality of hydrologically connected water sources, nor the reliability or the safe yield of the source.

Degree and Duration of Any Adverse Impacts: The probable degree of any adverse impacts to the quantity or quality of the waters and water dependent natural resources of the Great Lakes Basin, or to other uses of water expected to be caused by the proposed withdrawal must be considered. The proposed withdrawal is not expected to cause any adverse impacts, therefore plans and arrangements for avoidance or mitigation of such impacts are not required.

Restoration of Hydrologic Conditions and Functions: If a withdrawal proposal requires or includes measures for restoration of hydrologic conditions and functions of the source watershed they are also to be considered in the review process. The impact of the proposed withdrawal does not warrant a need for restoration of hydrologic conditions or functions.

Applicable Local, State and Federal Laws

To be approved, a withdrawal must be in compliance with all applicable local, state, and federal laws as well as legally binding interstate and international agreements, including the Boundary Waters Treaty of 1909. The Boundary Waters Treaty of 1909 was agreed to by the U.S. and Canada to provide a mechanism for the resolution of disputes over waters bordering the two countries and to insure the waters of the Great Lakes remain navigable. The DEQ has concluded the proposed withdrawal would be implemented in compliance with applicable state and federal laws, and international agreements including the Boundary Waters Treaty of 1909.

Public or Private Rights, Limitations and Common Law

The issuance of a permit on the proposed withdrawal must not violate public or private rights or the public trust doctrine, or exceed limitations imposed on the use of the resource by Michigan water law or other common law decisions. Specifically, the DEQ must ascertain if the issuance of the permit would interfere with the public's use of the water resources, or with the state's ability to maintain the resources for the public's reasonable use. The DEQ has concluded the proposed withdrawal would not interfere with the public's access to or interest in Lake Huron or its watershed, or with the state's ability to maintain Lake Huron or its watershed for the public's reasonable uses.

VI. PUBLIC PARTICIPATION PROCESS

The DEQ invited public comment on the permit application via public notice and website posting. The web posting included the permit application packet for the proposed withdrawal and the public notice announcement. The public notice announced the 45 day public comment period, and comments were accepted by the DEQ until August 15, 2012.

There were no comments received regarding the proposed increase in withdrawal capacity by Lafarge.

V. SUMMARY OF DEQ POSITION

The DEQ has determined the application for the Lafarge proposed increase in water withdrawal capacity was submitted in accordance with the permit requirements of Part 327. The DEQ shall issue a water withdrawal permit if the proposed withdrawal will be implemented so as all the following conditions are met: all water, less any consumptive use, is returned to the Lake Huron watershed; it will result in no individual or cumulative adverse resource impacts; it will be in compliance with all applicable local, state, and federal laws and legally binding interstate and international agreements; the use is reasonable under common law principles and criteria set in the Compact; it is in compliance with accepted water conservation measures; and it will not violate public or private rights and limitations imposed by Michigan water law or other Michigan common law duties. The DEQ concludes the information provided has satisfied all conditions for a water withdrawal permit. The authorized increased withdrawal capacity is 2,200 gallons per minute (3.168 million gallons per day).