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BILL ANALYSIS

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House Bill 5638 (Substitute H-5 as passed by the House)
Sponsor: Representative Aaron Miller
House Committee: Natural Resources
Senate Committee: Natural Resources

Date Completed: 5-23-18

CONTENT

The bill would amend Part 327 (Great Lakes Preservation) of the Natural Resources and Environmental Protection Act to do the following:

- **Delete provisions that require or allow a property owner to submit a request for a site-specific review of a proposed water withdrawal to the Department of Environmental Quality (DEQ).**
- **Allow a property owner to submit to the DEQ certain information and an analysis performed by a professional hydrologist or hydrogeologist, if the DEQ's assessment tool determined that a proposed withdrawal was a zone C or D withdrawal, or that a withdrawal with a capacity of 1.0 million gallons or less per day to supply a common distribution system was a zone B withdrawal in a cold-transitional river system.**
- **Require the DEQ to notify the property owner of its determination within 20 working days after receiving the analysis of the proposed withdrawal, supporting evidence, and related data.**
- **Allow the property owner to register the withdrawal and proceed with it if the DEQ determined that the withdrawal was a zone A or zone B withdrawal.**
- **Allow the property owner to register and proceed with a zone C withdrawal if the owner self-certified the implementation of certain water conservation measures.**
- **Provide that the property owner could not register or make a zone D withdrawal unless the owner applied for a permit under Part 327 and the withdrawal was authorized, or unless it was authorized under a site-specific review.**
- **Specify peer-reviewed models the DEQ could use to calculate streamflow depletion.**

Part 327 requires the Department of Environmental Quality to implement an internet-based water withdrawal assessment tool. The assessment tool must determine whether a proposed withdrawal of surface water or groundwater is a zone A, zone B, zone C, or zone D withdrawal and whether a proposed withdrawal is likely to cause an adverse resource impact based upon whether the proposed withdrawal is from a cold river system, a cold-transitional river system, a cool river system, or a warm river system.

If the assessment tool determines that a proposed withdrawal is a zone B withdrawal in a cold-transitional river system, or a zone C or zone D withdrawal, the property owner is required to submit to the DEQ a request for a site-specific review. If the assessment tool determines that a proposed withdrawal is a zone A withdrawal, or a zone B withdrawal in a cool river system or a warm river system and the property owner wishes to have a site-

specific review, the property owner may submit to the DEQ a request for a site-specific review. The bill would delete these provision.

Under the bill, if the assessment tool determined that a proposed withdrawal with a capacity of 1.0 million gallons of water or less per day from the water of the State to supply a common distribution system was a zone B withdrawal in a cold-transitional river system, or a zone C or zoned withdrawal, the property owner could submit to the DEQ certain data gathered by the assessment tool related to the proposed withdrawal and an analysis of the proposed withdrawal performed in one of the two methods described below.

One method would be an analysis performed by a professional hydrologist or hydrogeologist of a proposed withdrawal from an aquifer separated from streams by bedrock, calculating streamflow depletion of the proposed withdrawal by providing hydrogeologic data demonstrating the bedrock transmissivity for the formation or relying on published estimates of transmissivity for the bedrock formation.

Alternatively, the analysis of the proposed withdrawal would be performed by a professional hydrologist or hydrogeologist calculating the streamflow depletion of the proposed withdrawal. The analysis would have to be based on an aquifer performance test, streamflow depletion calculations, and geological data consisting of at least one of the following, which would have to be included with the analysis:

-- Evidence the proposed withdrawal was in the water management unit or units that were part of a regional or watershed based study of water use impacts accepted by the DEQ under Part 327, including an affidavit by the property owner that the proposed withdrawal was located in a river system and aquifer included in the study, and records of applicable data collected in the study.
-- A hydrogeologic analysis of the water management unit or units that would potentially be affected by the proposed withdrawal, incorporating data from well logs, gamma ray logs, surficial maps of the glacial geology, geologic cross sections, and any other available hydrogeologic data.

Within 20 working days after the DEQ's actual receipt of the analysis and supporting evidence and data related to the proposed withdrawal, the Department would have to determine whether a proposed withdrawal was a zone A, zone B, zone C, or zone D withdrawal and would have to give the property owner written notification of its determination. However, if upon a preliminary review of the analysis and supporting evidence and data, the Department determined that the proposed withdrawal would cause a rejection only due to an adverse resource impact caused by a cumulative streamflow depletion, the Department could, within the first 20 working days after actual receipt of the analysis and supporting evidence and related data, notify the property owner that up to five additional working days were needed for confirmation. If the Department did not provide written notification stating a need for up to five additional working days or if the Department cited any other reason for rejection due to an adverse resource impact, it would have to make its determination and notify the property owner of its determination within 20 working days after actual receipt of the analysis and supporting evidence and related data.

If the Department failed to provide written notification to the property owner within the time period required, the property owner could register the withdrawal and proceed with the withdrawal.

If the Department determined that the proposed withdrawal was a zone A or a zone B withdrawal, the property owner could register the withdrawal and could proceed with it.

If the Department determined that the proposed withdrawal was a zone C withdrawal, the property owner could register the withdrawal and proceed to make the withdrawal if the property owner self-certified that he or she was implementing applicable environmentally sound and economically feasible water conservation measures prepared under Part 327 that the property owner considered to be reasonable, or had self-certified that he or she was implementing applicable environmentally sound and economically feasible water conservation measures developed for the water use associated with that specific withdrawal that the property owner considered to be reasonable. A property owner would have to provide five sets of water level recovery measurements, as described in an aquifer performance test, taken after pumping between June and October within two years after the production well was put in service. The Department could not require additional information or data from a property owner.

If the Department determined that the proposed withdrawal was a zone D withdrawal, the property owner could not register the withdrawal and could not make the withdrawal unless the property owner applied for a water withdrawal permit under Part 327 and the withdrawal was authorized, or unless it was authorized under a site-specific review. In addition to the written notification of its determination, if the DEQ determined that the proposed withdrawal was a zone D withdrawal, the Department would have to include documentation demonstrating that the proposed water withdrawal was likely to cause an adverse resource impact. The documentation would have to include one or more of the following:

-- Identification of specific errors in data collection performed by the professional hydrologist or hydrogeologist that rendered the analysis of the proposed withdrawal invalid.
-- A statement that the professional hydrologist or hydrogeologist used an inapplicable model to analyze the proposed withdrawal, with an explanation including both why the model selected for analysis was inapplicable for the proposed withdrawal and an analysis using an applicable model that showed the proposed withdrawal was likely to cause an adverse resource impact.
-- Identification of specific errors in the model analysis performed by the professional hydrologist or hydrogeologist that rendered the analysis of the proposed withdrawal invalid.
-- The cumulative streamflow depletion estimated for all the registered water withdrawals in an impacted watershed management area was likely to cause an adverse resource impact.

The cumulative streamflow depletion calculation would have to account for reevaluation of previously registered water withdrawals in the affected water management units using specific peer-reviewed hydrological models that assessed potential stream depletion.

After a property owner registered a withdrawal, if, in developing the capacity to make the withdrawal, the conditions of the withdrawal deviated from the specific data that were evaluated, the property owner would have to notify the DEQ of the corrected data and the DEQ would have to confirm its determination. If the corrected data did not change the determination, the property owner could proceed with the withdrawal. If the corrected data changed the determination, the property owner could proceed under the provisions of Part 327 related to the corrected determination.

If a proposed withdrawal were a zone B withdrawal in a cold transitional river system, or a zone C or zone D withdrawal, and a property owner did not submit any of the required information described above or the DEQ determined that the proposed withdrawal was a zone D withdrawal, the property owner could request a site-specific review.

Part 327 requires the DEQ, upon receiving a request for a site-specific review, to consider the information submitted and consider the actual stream or river flow data of any affected stream

reach. The Department also must apply certain drainage aggregation standards, if applicable, and account for cumulative withdrawals as provided in Part 327. In making its determination under a site-specific review, the DEQ is prohibited from relying on the assessment tool's determination.

Under the bill, the Department could calculate streamflow depletion using specific peer-reviewed models that assess potential stream depletion. The calculation of streamflow depletion also could be conducted on existing withdrawals in the same water management unit or units as the proposed withdrawal if applicable data were available. The data could be used to provide additional evidence as needed to demonstrate whether a proposed withdrawal was likely to cause an adverse resource impact.

The bill states that nothing in Section 32706c (the section the bill would amend) would alter any requirement to disclose information or any exemption from disclosure under the Freedom of Information Act.

The bill would define "aquifer performance test" as a controlled field test in which all of the following are done:

-- At least one monitoring well is installed.
-- Static water level elevation measurements are taken at one-minute intervals for 24 hours before the pumping portion of the test to an accuracy of 0.05 foot.
-- Pumping is conducted at a rate at or above the desired production rate for the duration of the test and metered or periodically measured to ensure consistency of rate.
-- The pumping portion of the test is conducted for a period of 24 hours in confined aquifers or 72 hours in unconfined aquifers, during which drawdown measurements are taken at one-minute intervals to an accuracy of 0.05 foot.
-- After completion of the pumping period, measurements of water level recovery are taken at one-minute intervals for 24 hours to an accuracy of 0.05 foot.
-- An analysis is conducted to determine, at a minimum, the aquifer hydraulic characteristics of transmissivity and storage coefficient employing specific peer-reviewed methods.

The required monitoring well would have to be installed in the same aquifer and screened at or near the same depth as the production well, and be located at a distance of one to five times the thickness of the aquifer from the proposed production well. A nearby existing well could be used as a monitoring well for the test instead if it met all the monitoring well requirements.

"Professional hydrologist or hydrogeologist" would mean an individual holding a license or registration from any state as a professional hydrologist, hydrogeologist, or geologist, or a current certification as a professional geologist by the American Institute of Professional Geology.

"Streamflow depletion calculation" would mean an evaluation of the potential streamflow depletion in which all of the following are done:

-- The streambed conductance of the potentially affected streams is measured in-situ using slug testing, seepage meter testing, or both.
-- An aquifer performance test representing the proposed withdrawal location has been completed.
-- An analysis to calculate streamflow depletion using a specific peer-reviewed model that assesses potential stream depletion.

The analysis also could be conducted on existing withdrawals in the same water management unit or units as the proposed withdrawal if applicable data were available. This could be used to provide additional evidence as needed to demonstrate that a proposed withdrawal was unlikely to cause an adverse resource impact.

MCL 324.32706c Legislative Analyst: Nathan Leaman

FISCAL IMPACT

The bill would have no fiscal impact on State or local government.

Fiscal Analyst: Josh Sefton

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This analysis was prepared by nonpartisan Senate staff for use by the Senate in its deliberations and does not constitute an official statement of legislative intent.