

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.32706c Request for site-specific review; analysis; supporting evidence; conditions; form; information to be included; completion of review by department; withdrawals; registration; corrected data; disclosure under freedom of information act; definitions.

Sec. 32706c. (1) If the assessment tool determines that a proposed withdrawal with a capacity of 1,000,000 gallons of water or less per day from the waters of the state to supply a common distribution system is a zone B withdrawal in a cold-transitional river system, or a zone C or zone D withdrawal, the property owner may submit to the department the information described in section 32706a(3) and either of the following:

(a) An analysis of the proposed withdrawal by a professional hydrologist or hydrogeologist calculating the streamflow depletion of the proposed withdrawal. The analysis shall be based on an aquifer performance test, streamflow depletion calculations, and geological data consisting of at least 1 of the following, which shall be included with the analysis:

(i) Evidence the proposed withdrawal is in the water management unit or units that were part of a regional or watershed based study of water use impacts accepted by the department under this part. The evidence must include an affidavit by the property owner that the proposed withdrawal is located in a river system and aquifer included in the study, and records of applicable data collected in the study.

(ii) A hydrogeologic analysis of the water management unit or units that will 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.

(b) An analysis 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 as described in this subdivision by providing hydrogeologic data demonstrating the bedrock transmissivity for the formation or relying on published estimates of transmissivity for the bedrock formation.

(2) Within 20 working days after the department's actual receipt of the analysis and supporting evidence and data related to the proposed withdrawal under subsection (1), the department shall determine whether a proposed withdrawal is a zone A, zone B, zone C, or zone D withdrawal and shall provide to the property owner written notification of its determination. However, if upon a preliminary review of the analysis and supporting evidence and data the department determines that the proposed withdrawal will cause a rejection only under subdivision (d)(iv), the department may, within the first 20 working days after actual receipt of the analysis and supporting evidence and data related to the proposed withdrawal under subsection (1), provide written notification to the property owner that up to 5 additional working days are needed for confirmation. If the department does not provide written notification stating a need for up to 5 additional working days or if the department cites any other reason under subdivision (d) for rejection, it must make its determination and provide to the property owner written notification of its determination within 20 working days after actual receipt of the analysis and supporting evidence and data related to the proposed withdrawal under subsection (1). The department's determination is subject to the following:

(a) If the department fails to provide written notification to the property owner within the time period required under this subsection, the property owner may register the withdrawal and proceed with the withdrawal.

(b) If the department determines that the proposed withdrawal is a zone A or a zone B withdrawal, the property owner may register the withdrawal and may proceed with the withdrawal.

(c) If the department determines that the proposed withdrawal is a zone C withdrawal, the property owner may register the withdrawal and proceed to make the withdrawal if the property owner self-certifies that he or she is implementing applicable environmentally sound and economically feasible water conservation measures prepared under section 32708a that the property owner considers to be reasonable or has self-certified that he or she is implementing applicable environmentally sound and economically feasible water conservation measures developed for the water use associated with that specific withdrawal that the property owner considers to be reasonable. A property owner proceeding under this subdivision shall provide 5 sets of water level recovery measurements, as described in an aquifer performance test, taken after pumping between June and October within 2 years after the production well is put in service. The department shall not require submission of additional information or data from a property owner proceeding under this subdivision.

(d) If the department determines that the proposed withdrawal is a zone D withdrawal, the property owner shall not register the withdrawal and shall not make the withdrawal unless the property owner applies for a water withdrawal permit under section 32723 and the withdrawal is authorized under that section, or unless it is authorized under subsection (4). In addition to the written notification of its determination under this subsection, if the department determines that the proposed withdrawal is a zone D withdrawal, the department

shall include documentation demonstrating that the proposed water withdrawal is likely to cause an adverse resource impact. The documentation shall include 1 or more of the following:

(i) Identification of specific errors in data collection performed by the professional hydrologist or hydrogeologist that render the analysis of the proposed withdrawal invalid.

(ii) 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 shows the proposed withdrawal is likely to cause an adverse resource impact.

(iii) Identification of specific errors in the model analysis performed by the professional hydrologist or hydrogeologist that render the analysis of the proposed withdrawal invalid.

(iv) The cumulative streamflow depletion estimated for all the registered water withdrawals in an impacted watershed management area is likely to cause an adverse resource impact. The cumulative streamflow depletion calculation shall account for reevaluation of previously registered water withdrawals in the affected water management units using the Hunt, 2003; Ward and Lough, 2011; or a similar peer-reviewed model that assesses potential stream depletion.

(3) After a property owner registers a withdrawal pursuant to subsection (2), if, in developing the capacity to make the withdrawal, the conditions of the withdrawal deviate from the specific data that were evaluated, the property owner shall notify the department of the corrected data and the department shall confirm its determination under subsection (2). If the corrected data do not change the determination, the property owner may proceed with the withdrawal. If the corrected data change the determination, the property owner shall proceed under the provisions of this part related to the corrected determination.

(4) If a proposed withdrawal is a zone B withdrawal in a cold-transitional river system, or a zone C or zone D withdrawal, and a property owner does not submit any of the information described in subsection (1) or the department determines under subsection (2) that the proposed withdrawal is a zone D withdrawal, the property owner may request a site-specific review. A request for a site-specific review shall be submitted to the department in a form required by the department and shall include all of the following:

(a) The information described in section 32706a(3).

(b) The intended maximum monthly and annual volumes and rates of the proposed withdrawal, if different from the capacity of the equipment used for making the proposed withdrawal.

(c) If the amount and rate of the proposed withdrawal will have seasonal fluctuations, the relevant information related to the seasonal use of the proposed withdrawal.

(d) A description of how the water will be used and the location, amount, and rate of any return flow.

(e) Any other information the property owner would like the department to consider in making its determination under this section.

(5) Upon receipt of a request for a site-specific review under subsection (4), the department shall consider the information submitted and shall consider the actual stream or river flow data of any affected stream reach. The department shall also apply the drainage area integration standards provided in section 32706a(2)(a), (b), and (c), if applicable, and account for cumulative withdrawals as provided for in section 32706e. The department shall not rely on the assessment tool's determination in making its determination under a site-specific review. The department may calculate streamflow depletion using Hunt, 2003; Ward and Lough, 2011; or a similar peer-reviewed model that assesses potential stream depletion. The calculation of streamflow depletion may also be conducted on existing withdrawals in the same water management unit or units as the proposed withdrawal if applicable data are available. This data may be used to provide additional evidence as needed to demonstrate whether a proposed withdrawal is likely to cause an adverse resource impact.

(6) The department shall complete a site-specific review within 10 working days of submittal of a request for a site-specific review. If the department determines, based upon a site-specific review, that the proposed withdrawal is a zone A or a zone B withdrawal, the department shall provide written notification to the property owner and the property owner may register the withdrawal and may proceed with the withdrawal.

(7) Subject to subsection (8), if the department determines in conducting a site-specific review that the proposed withdrawal is a zone C withdrawal, the property owner may register the withdrawal and proceed to make the withdrawal if the property owner self-certifies that he or she is implementing applicable environmentally sound and economically feasible water conservation measures prepared under section 32708a that the property owner considers to be reasonable or has self-certified that he or she is implementing applicable environmentally sound and economically feasible water conservation measures developed for the water use associated with that specific withdrawal that the property owner considers to be reasonable.

(8) Except for withdrawals exempt from obtaining a water withdrawal permit under section 32723, if a site-specific review determines that a proposed withdrawal is a zone C withdrawal with capacity in excess of

1,000,000 gallons of water per day from the waters of the state to supply a common distribution system, the person proposing the withdrawal shall not register the withdrawal and shall not proceed with making the withdrawal unless the person obtains a water withdrawal permit under section 32723.

(9) If the department determines, based upon a site-specific review, that the proposed withdrawal is a zone D withdrawal, the property owner shall not register the withdrawal and shall not make the withdrawal unless he or she applies for a water withdrawal permit under section 32723 and the withdrawal is authorized under that section.

(10) After a property owner registers a withdrawal following a site-specific review, if, in developing the capacity to make the withdrawal, the conditions of the withdrawal deviate from the specific data that were evaluated in the site-specific review, the property owner shall notify the department of the corrected data and the department shall confirm its determination under the site-specific review. If the corrected data do not change the determination under the site-specific review, the property owner may proceed with the withdrawal. If the corrected data change the determination under the site-specific review, the property owner shall proceed under the provisions of this part related to the corrected determination.

(11) Nothing in this section alters any requirement to disclose information or any exemption from disclosure under the freedom of information act, 1976 PA 442, MCL 15.231 to 15.246, as otherwise provided under sections 32707(6) and 32708(4).

(12) As used in this part:

(a) "Aquifer performance test" means a controlled field test in which all of the following are done:

(i) At least 1 monitoring well is installed. The monitoring well must 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 1 to 5 times the thickness of the aquifer from the proposed production well. A nearby existing well may be used as a monitoring well for the test instead if it meets all the monitoring well requirements.

(ii) Static water level elevation measurements are taken at 1-minute intervals for 24 hours before the pumping portion of the test to an accuracy of 0.05 feet.

(iii) 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.

(iv) 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 1-minute intervals to an accuracy of 0.05 feet.

(v) After completion of the pumping period, measurements of water level recovery are taken at 1-minute intervals for 24 hours to an accuracy of 0.05 feet.

(vi) An analysis is conducted to determine, at a minimum, the aquifer hydraulic characteristics of transmissivity and storage coefficient employing the methods of Cooper and Jacob, 1946; Theis, 1935; Hantush and Jacob, 1955; Hantush and Jacob, 1960; Hantush and Jacob, 1961; Neuman, 1972; Neuman, 1974; or Hunt and Scott, 2007.

(b) "Cooper and Jacob, 1946" means Cooper and Jacob, 1946: "A Generalized Graphical Method for Evaluating Formation Constants and Summarizing Well-Field History".

(c) "Hantush and Jacob, 1955" means Hantush and Jacob, 1955: "Non-Steady Radial Flow in an Infinite Leaky Aquifer".

(d) "Hantush and Jacob, 1960" means Hantush and Jacob, 1960: "Modification of the Theory of Leaky Aquifers".

(e) "Hantush and Jacob, 1961" means Hantush and Jacob, 1961: "Aquifer Tests on Partially Penetrating Wells".

(f) "Hunt, 1999" means Hunt, 1999: "Unsteady Stream Depletion from Ground Water Pumping".

(g) "Hunt, 2003" means Hunt, 2003: "Unsteady Stream Depletion When Pumping from Semiconfined Aquifer".

(h) "Hunt and Scott, 2007" means Hunt and Scott, 2007: "Flow to a Well in a Two-Aquifer System".

(i) "Neuman, 1972" means Neuman, 1972: "Theory of Flow in Unconfined Aquifers Considering Delayed Gravity Response of the Water Table".

(j) "Neuman, 1974" means Neuman, 1974: "Effect of Partial Penetration on Flow in Unconfined Aquifers Considering Delayed Gravity Response".

(k) "Professional hydrologist or hydrogeologist" means 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.

(l) "Streamflow depletion calculation" means an evaluation of the potential streamflow depletion in which all of the following are done:

(i) The streambed conductance of the potentially impacted streams shall be measured in-situ using slug

testing, seepage meter testing, or both.

(ii) An aquifer performance test representing the proposed withdrawal location has been completed.

(iii) An analysis shall be conducted to calculate streamflow depletion using the applicable method of Hunt, 1999; Hunt, 2003; Ward and Lough, 2011; or a similar peer-reviewed model that assesses potential stream depletion. The analysis may also be conducted on existing withdrawals in the same water management unit or units as the proposed withdrawal if applicable data are available. This may be used to provide additional evidence as needed to demonstrate a proposed withdrawal is unlikely to cause an adverse resource impact.

(m) "Theis, 1935" means Theis, 1935: "The Relation Between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Groundwater Storage".

(n) "Ward and Lough, 2011" means Ward and Lough, 2011: "Stream Depletion from Pumping a Semiconfined Aquifer in a Two-Layer Leaky Aquifer System".

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