

Chapter 711 – Temporary Dewatering

Section 711.1 – Intent

The Township of Lenox hereby determines that it is necessary to regulate temporary dewatering activities of construction projects in the Township for the protection of the public health, safety, and general welfare based upon an evaluation of the characteristics of the Township's geology, soils, glacial land systems, aquifer characteristics of the glacial drift, seasonal water table depths, domestic and commercial well locations, transmissivity of glacial deposits and groundwater recharge rates.

Section 711.2 – Definitions

Temporary Construction Dewatering – Artificially lowering the groundwater table to facilitate underground construction, whether by means of pump and discharge, pump, and recharge, well points, deep wells, horizontal wells, frozen trench, or other methods.

Dewatering Plan & Procedure – A document prepared by a professional engineer licensed in the State of Michigan setting forth the method proposed for temporary construction dewatering of a construction site and including the process and procedures that shall be followed by the contractor to minimize the potential adverse impact on adjacent groundwater wells and surface water bodies.

Section 711.3 – Mapped Characteristics

The following mapped characteristics illustrate the evaluation conducted by the Township of Lenox in determining that this Ordinance was necessary to protect groundwater wells and surface water bodies from the potential adverse impacts of temporary construction dewatering. Appendices A through G are hereby made part of this Ordinance:

- A. Quaternary Geology of Lenox Township
- B. Glacial Land Systems of Lenox Township
- C. Aquifer Characteristics of Glacial Drift in Lenox Township
- D. Depth to Seasonal High-Water Table in Lenox Township
- E. Groundwater Recharge in Lenox Township

F. Glacial Deposits Transmissivity in Lenox Township

G. Well Locations in Lenox Township

Section 711.4 – Findings and Scope

The Township of Lenox has studied the natural characteristics of the community's glacial geology, soils, water table depths, domestic and commercial well locations, and slow rate of groundwater recharge. Based on this evaluation of the natural characteristics of the township, as represented on Maps A through G of this Ordinance dated October 23, 2008, the Township of Lenox finds that it is necessary to regulate temporary construction dewatering operations throughout all areas of the township where sand seams provide the primary source for domestic water wells and surface water bodies. Construction projects where temporary construction dewatering is proposed involving installation of water mains, storm sewers, and sanitary sewers deeper than 12 feet, shall adhere to the requirements of this Ordinance for the approval of a dewatering plan; implementation of temporary construction dewatering operations, monitoring of dewatering impacts, mitigation of adverse groundwater impacts, and suspension of temporary construction dewatering operations when found to be necessary for the protection of the public welfare.

Section 711.5 – Fundamental Requirements

A. Temporary Construction Dewatering:

1. If soil borings indicate that the static groundwater is higher than the elevation at which proposed construction work will take place, whether determined by initial soil borings or observed during construction so that it will be necessary to dewater an area to continue construction, then a written dewatering plan and procedure shall be submitted to the Township by the applicant's Licensed Professional Engineer and approved by the Township Engineer prior to commencement of dewatering operations.
2. If groundwater is encountered during construction, the contractor shall contact Lenox Township immediately, documenting the need to dewater prior to any further construction.
3. If temporary construction dewatering plan and procedures are not submitted, or not adhered to the following approval, the Township shall take action to suspend dewatering activities at the project until an acceptable procedure has been submitted and approved.

4. Should the Township determine that temporary construction dewatering being implemented by the contractor is causing an adverse impact to a well or lowering the groundwater table causing a surface irrigation pond to become adversely impacted, the contractor shall be required to provide potable drinking water to the household or business and suspend temporary construction dewatering activities until an acceptable procedure had been developed.

B. Dewatering Plan Requirements: The following plan elements shall be set forth within a written dewatering plan and procedure:

1. The number, location, and depth of monitoring wells proposed upgradient of groundwater flow or installed near the nearest property boundary.
2. Protection for all flush mount or above-ground wells to prevent small children or animals from falling into the well.
3. Precautions to minimize generator noise and disturbance to surrounding residential areas consistent with the Township's current noise level standards.
4. Depth to which the groundwater levels are proposed to be temporarily lowered.
5. Procedures to monitor dewatering so as to minimize dewatering depth.
6. Proposed temporary construction dewatering methods, such as pump and discharge, pump, and recharge, well points, deep wells, horizontal wells, or frozen trench method.
7. Method of disposal of groundwater pumped from the dewatering operation. Pumped water shall be monitored to prevent erosion, flooding, or other hardship or nuisance downgradient of the site. Approved discharge water must be directed to an established drainage course and shall be filtered using best management practices for sediment control before and after the water leaves the construction site and before entering a receiving wetland or water body, in accordance with an approved Soil Erosion and Sedimentation Control Permit.
8. Frequency of recording water levels in the monitoring wells and pumping wells to NAVD'88 datum during the temporary dewatering operation and after project completion until groundwater has resumed to the preconstruction static level.
9. The construction of permanent construction dewatering wells shall not be permitted.

10. Certification by the applicant that the dewatering plan and procedure have been designed to mitigate adverse impact to adjoining or off-site properties during and after operations.

Section 711.6 – Exempt Activities

- A. Any activity that is exempt under Public Act Number 368 of 1978, as amended, shall be exempt from the provisions of this ordinance, including but not limited to the construction of a single well of less than two (2) inches in diameter and not more than twenty-five (25) feet deep.
- B. A private well that is the source of potable water for a residence, business, farm, school, or similar use shall be exempt under the provisions of this Ordinance.
- C. Municipal projects that are constructed by Lenox Township are anticipated to have no adverse impact.

Section 711.7 – Violation and Penalties

A violation of any provision of this Ordinance shall constitute a misdemeanor. Any person, firm, corporation, partnership, or other entity who violates, disobeys, omits, neglects, or refuses to comply with a provision of this Ordinance shall be guilty of a misdemeanor, and upon conviction thereof, shall be subject to a fine of not more than One Thousand Dollars (\$1,000.00), or imprisonment in the County Jail for a period not to exceed thirty (30) days or both such fine and imprisonment at the discretion of the Court. Each and every day, during which such violation continues, shall be deemed a separate offense. The imposition of any sentence shall not exempt the offender from compliance with the provisions of this Ordinance.

In addition, the Township Board, or any member thereof, or the Prosecuting Attorney for the County of Macomb, may institute injunctive proceedings to prevent or enjoin any violation of the provisions of this Ordinance. The rights and remedies provided herein are cumulative and in addition to other remedies provided by law.