

**Grand Ledge City Council Resolution # \_\_\_\_\_ of 2025**

**A Resolution to Approve a Proposal from Williams and Works, Inc., for Engineering Services for the Well No. 11 Wellhouse, Water System Tie-in, and Permitting.**

A resolution adopted by the Grand Ledge City Council, at a regular meeting held on Monday, 09 June 2025, in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

**Whereas**, the City of Grand Ledge, Michigan (“City”) is a municipal corporation organized under the provisions of the Home Rule City Act, Public Act 279 of 1909, as amended, and is governed by the provisions of the Grand Ledge City Charter adopted 07 August 2018, as amended (“Charter”); and

**Whereas**, Charter §13.1A provides:

“The power to make and to authorize the making of contracts on behalf of the City is vested in the City Council and shall be exercised in accordance with the provisions of law”; and

**Whereas**, Williams and Works, Inc., has provided a proposal for Engineering Services for the Well No. 11 Wellhouse, Water System Tie-in, and Permitting; and

**Whereas**, staff recommends approving a proposal with Williams and Works, Inc., for Engineering Services for the Well No. 11 Wellhouse, Water System Tie-in, and Permitting;

**Now, Therefore, It Is Resolved:**

1. The City approves a proposal from Williams and Works, Inc., for Engineering Services for the Well No. 11 Wellhouse, Water System Tie-in, and Permitting, as attached.
2. The City directs the City Manager and Finance Director / Treasurer to appropriate the funds necessary to implement said proposal.
3. The City authorizes and directs the City Manager, or their duly authorized agent or representative, to act as agent on behalf of the City to implement said proposal on behalf of the City; to do any other act(s) or thing(s) which shall be necessary to implement said proposal on behalf of the City; to preserve and protect the rights, duties, and obligations of the City thereunder; and to do any act or thing required by Charter, ordinance, regulation, rule, statute, or other provision of law in order to implement said proposal.

**Motion by**

**Second by**

**Ayes:**

**Nays:**

**Absent:**

Approved:

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Keith O. Mulder, Mayor

I, Gregory L. Newman, Grand Ledge City Clerk, certify this is Resolution #\_\_\_\_\_ of 2025, adopted by the Grand Ledge City Council at a regular meeting held on Monday, 09 June 2025; in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

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Gregory L. Newman, City Clerk

# williams&works

engineers | surveyors | planners

April 3, 2025

Kurt Ristow, Public Works Superintendent  
City of Grand Ledge Public Services  
310 Greenwood Street  
Grand Ledge, MI 48837

**Sent Via Email**

**Reference: Proposal - Engineering Services for the City of Grand Ledge Well No. 11 Wellhouse, Water System Tie-in and Permitting**

Dear Mr. Ristow:

Thank you for the opportunity to be of continuing service to the City of Grand Ledge. This proposal is to provide you with our scope of work and fees associated with; i) the Well No. 11 wellhouse design, ii) the associated design of the water system tie-in at Franklin Street, iii) design of the well pump and appurtenances, and, iv) Act 399 permitting for all three components of this project. Once the Michigan Department of Environment, Great Lakes and Energy (EGLE) has reviewed and issued the permit to construct, we will assist the City with preparation of bidding documents and provide support during the selection of a contractor.

The new Production Well No. 11 will be equipped and housed similarly to all of the City production wells - with a line-shaft turbine pump and a new wellhouse built over the new well in the new location. Unless otherwise determined during the design, we will assume the electrical infrastructure, piping layout, pump controls (including SCADA equipment), heating and ventilation, and pump equipment will be similar as currently configured for the City's existing wellhouses.

The actual construction characteristics and design of the wellhouse structure has yet to be determined. Therefore, our design budget is presented to accommodate most common wellhouse structures – ultimately this will be determined by the City early in the design phase.

1. **Plans and Specifications.** Once the basis of design has been established, this design project will involve a survey of the site, and preparation of engineering plans and specifications – all of which will meet the Ten States Standards - for the following components;
  - a) Survey of site topography and natural/man-made features.
  - b) Preparation of the basis of design which will meet EGLE expectations.
  - c) Determination of the wellhouse structure type and appearance.
  - d) Design of the production well pump equipment and pump appurtenances.

- e) Design of the wellhouse piping, valving, metering and other mechanical and plumbing-related equipment. The piping will be designed to allow pumping to waste, raw water sampling, chlorination and any other chemical feed taps needed.
  - f) Chemical feed equipment including feed rate calculations (required for EGLE review).
  - g) The interconnecting watermain from the new wellhouse to the existing water system piping at Franklin Street.
  - h) Wellhouse appurtenances needed to satisfy the City's standards, EGLE and the Ten States Standards (sample taps, chemical feed quill locations, etc.).
  - i) The complete electrical infrastructure equipment including pump controls, SCADA interfacing and connection to the available power source.
  - j) Wellhouse design (characteristics to be determined) including foundation design, roof design, wall design (also to be determined), heating and ventilation, etc.
  - k) Preparation of an Act 399 Construction Permit Application and submittal to the MiEHDWIS system for EGLE review and approval.
2. **Preparation of Bid Documents for the Wellhouse Improvements and New Well Connection to the Water System.** Preparation of bidding documents and assistance to the city with advertisement for bids for general contractors to perform the wellhouse and well equipment related work.

**The engineering fees for the engineering design work will be as follows;**

**Site Survey and Topographic mapping** **\$4,500.00**

**Engineering of the wellhouse including electrical, HVAC, structural, architectural, well pump, etc. (Item Nos. 1a-h described above)**

**\$41,000.00**

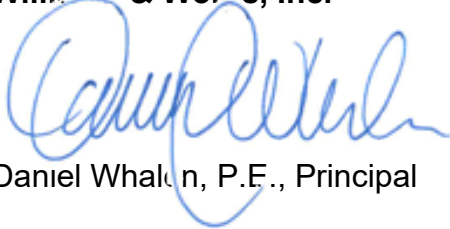
**The design work will include all engineering and technical reporting including basis of design, all related correspondence with EGLE, Act 399 submittal to MiEHDWIS and preparation of bid documents for public bidding. The engineering fees for the complete work scope as described above will be a not to exceed total of \$45,500.00.**

Kurt Ristow, Public Works Superintendent  
April 3, 2025  
Page 3 of 3

Once again, we appreciate this opportunity to continue working with the City of Grand Ledge. If you have any questions or comments regarding this proposal, please contact me (616-822-6287).

Respectfully Submitted,

**Williams & Works, Inc.**

A handwritten signature in blue ink, appearing to read "Dan Whalen", is written over the company name.

Daniel Whalen, P.E., Principal



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION



PHILLIP D. ROOS  
DIRECTOR

**TO:** Steven Cummins, District Engineer, Lansing District Office, Community Water Supply Section, Drinking Water and Environmental Health Division

**FROM:** Travis Bauer, Senior Geologist, Source Water Unit, Environmental Health Section, Drinking Water and Environmental Health Division

**DATE:** April 23, 2025

**SUBJECT:** Aquifer Test Review – City of Grand Ledge, Type 1 Well, TPW-11, Oneida Township, Eaton County, WSSN 2770

### Summary

The Department of Environment, Great Lakes, and Energy, Drinking Water and Environmental Health Division (DWEHD), Source Water Unit (SWU), has reviewed the aquifer report “City of Grand Ledge – Groundwater Resource Evaluation - Proposed Test Production Well No. 11 - WSSN 02770”, which was submitted by Williams & Works, Inc. (W&W) on January 28, 2025.

The City of Grand Ledge undertook a groundwater resource evaluation, including the construction and testing of the new test production well TPW-11, to increase the firm capacity of their water system to meet projected demands. The wellsite was selected for its isolation and proximity to existing infrastructure. As part of this effort, an aquifer analysis was conducted according to Policy/Procedure ODWMA-399-003, to define the local bedrock aquifer's hydraulic properties and predict its long-term behavior.

TPW-11 and two observation wells (OW-1 and OW-2) were constructed for monitoring during the aquifer test. Prior to the test, background water levels in OW-1 were monitored for two days. The aquifer test on TPW-11 involved pumping at 425 gallons per minute (gpm) for 24 hours, followed by a 96-hour recovery period. Drawdown and recovery data were recorded in TPW-11, OW-1, and OW-2 using pressure transducers and data-logging instruments. Although Well No. 2 was monitored, its setup made above-grade water level measurement difficult, so an air-line was used for the final water level at the end of the pumping phase. Discharge was directed east.

The analysis of the aquifer test data, including drawdown and recovery curves, revealed characteristics of the bedrock aquifer. Different analytical methods, including Cooper-Jacob, Hantush-Jacob (leaky-confined), and Theis (confined with an image well), were applied to interpret the data and determine aquifer properties like transmissivity and storage coefficient. The analysis also considered factors such as barometric pressure effects, which were deemed insignificant to the overall drawdowns, and the potential influence of the Grand River as a recharge boundary or the presence of fractured zones.

Based on the analysis, the report concludes that TPW-11 can be rated at 400 gpm and can operate simultaneously with Well No. 2. SWU analysis agrees with the reduced rate of 400 gpm and to accommodate the additional drawdown when both wells are pumping, the pump settings for both TPW-11 and Well No. 2 must be set at a depth of 200 feet below ground level, or greater.

Groundwater quality samples were also collected and analyzed at the end of the pumping test, with results for various aesthetic and regulated parameters included in the report. The analysis of corrosion indices indicated a low galvanic corrosion potential of the groundwater from TPW-11.

Based on the analysis of the hydraulic characteristics, subsurface lithology, and the presence of leaky-confining strata, the aquifer is considered leaky-confined, having a “low” geologic sensitivity to contamination. The bedrock aquifer is 225 feet thick and well efficiency is between 78-82 percent.

Based upon the information provided, TPW-11 passed the screening process according to the Adverse Resource Impact criteria of Part 327, Great Lakes Preservation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, with a “Zone A” determination.

### Site Location

Water well records place TPW-11 southeast of Jaycee Park in Oneida Township, SW 1/4 of NW 1/4 Section 12 (T04N-R04W), Eaton County, Michigan. The locations of wells TPW-11, OW-1, OW-2, and Well No. 2 were provided in accordance with the DWEHD Policy and Procedure ODWMA-399-003, “Aquifer Test Requirements for Public Water Supply Wells.” Information for these wells is also included in Wellogic, the statewide groundwater database.

Latitude and longitude information for these wells were collected with a handheld global position system and can, therefore, be considered accurate to the level of precision required. A Wellogic identification number (Wellogic ID number), as well as the latitude and longitude of each well included in the aquifer characterization of this site, are provided in Table 1.

**Table 1. Location Information**

<b>Well Identification</b>	<b>Wellogic ID Number</b>	<b>Latitude (degrees)</b>	<b>Longitude (degrees)</b>
TPW-11	23000016881	42.75006	-84.73964
OW-1	23000016874	42.74993	-84.73970
OW-2	23000016875)	42.75024	-84.73951
Well No. 2	23000000174	42.75152	-84.74123

Corrections or additions to location information should be directed to Anita Ladouceur, Environmental Quality Analyst, SWU, at 517-643-2574.

### **Area Hydrogeology**

Review of the U.S. Geological Survey's, 2023 Dimondale, Michigan, Topographic Map indicates the land surface elevation is approximately 790 feet above mean sea level (amsl), or 793 feet amsl in Google Earth. Drift thickness in the vicinity of the area is generally mapped with a thickness of zero to 50 feet.

The quaternary geology (drift) at TPW-11 is mapped as medium-textured glacial till. This material is gray, grayish brown, or reddish brown, nonsorted glacial debris; matrix is dominantly loam and silt loam texture, variable amounts of cobbles and boulders. Occurs as ground moraine, till plain or, undifferentiated ground moraine-end moraine complexes.

Early Pennsylvanian Period (323.2 to 298.9 million years ago), Saginaw Formation (WMU, 1981). The Saginaw Formation is generally described as a sequence of sandstone, the Saginaw Aquifer, that overlies the Saginaw Confining unit, which consists predominantly of shale and interbedded sandstone, siltstone, coal, and limestone beds (Westjohn & Weaver, 1996). The Saginaw Aquifer is a source of water for numerous residential and public water supplies. However, the Saginaw confining unit is considerably less productive and water wells are rarely completed within the sequence.

Contact with the late-Pennsylvanian Period Grand River Formation is very close, approximately ten feet north and west. The Grand River Formation usually consists of irregularly bedded, lenticular sandstone. The Grand River Formation is considered a good aquifer, generally producing good quality water at volumes up to 800 gpm (WMU, 1981b). This formation outcrops significantly nearby along the banks of the Grand River.

### **Summary of Well Construction and Isolation**

TPW-11 was constructed by Raymer Company, Inc. in November of 2024, to a depth of 251 feet below ground level (bgl). The 12-inch diameter black-steel casing was installed from three feet above grade to 69 feet bgl in a 20-inch annulus. The borehole from 69 feet bgl to 251 feet bgl is 11-inch diameter. The annulus was grouted with 90 bags of neat cement from 69 feet bgl to one foot above grade. The well was flowing when drilled, with an estimated head of negative three feet, or three feet above ground level.

Wells TPW-11, OW-1, and OW-2 were used for the current hydrogeologic evaluation. Table 2 summarizes the well information, including the well ID, Wellogic ID number, casing diameter, casing depth, and borehole depth.

**Table 2: Summary of Well Construction**

<b>Well Identification</b>	<b>Wellogig ID Number</b>	<b>Casing Diameter (inches)</b>	<b>Casing Depth (feet bgl*)</b>	<b>Borehole Depth (feet bgl*)</b>
TPW-11	23000016881	12	69	251
OW-1	23000016874	5	60	260
OW-2	23000016875)	5	60	260
Well 2	23000000174	UNK	UNK	400

\*bgl = below ground level

The driller's log describes the thin drift material at TPW-11 consisting of two feet of topsoil atop ten feet of coarse sand and gravel with cobbles. Bedrock begins at a depth of twelve feet with thirteen feet of black shale confining the 225-foot bedrock aquifer of sandstone. The well was terminated at a depth of 251 feet when black shale was again encountered.

The consultant's assessment of the borehole material elaborates upon the driller's description and categorizes the lithology as four units. The uppermost unit consists of sandy soils to the top of bedrock. Next the shale confining layer, then the 225 feet of sandstone with "occasional shaley partings." The fourth unit is the basal shale, hypothesized to be the uppermost boundary of the Michigan Formation below.

The City of Grand Ledge owns the wellsite property. The Grand River is the nearest body of surface water, approximately 120 feet away, and the drift is unprotected. However, the 13-foot interval of black shale should offer significant protection of the sandstone bedrock aquifer from the surface.

### **Groundwater Flow Direction and Gradient**

Static water levels (SWL) were measured before the pumping test according to DWEHD policy and procedure ODWMA-399-003. Groundwater flow direction based on the SWLs collected cannot be determined due to the linear nature of the wells. To ascertain the direction of flow a generalized map of SWL's from groundwater wells in the Wellogig database was created. While this method is less precise and less accurate at a hyper-local level, it is generally accurate and useful regionally. Using this method, groundwater flow direction is to the north-northwest at the location. Static water elevations at the site are shown in Table 3.

**Table 3: Static Water Elevation Data**

<b>Well Identification</b>	<b>Top of Casing (feet amsl)</b>	<b>Static Water Levels from Top of Casing (feet)</b>	<b>Static Water Elevation (feet amsl)</b>	<b>Radial Distance (Feet)</b>
TPW-11	805.21	0.04	805.17	1
OW-1	812.74	7.63	805.11	62
OW-2	804.91	0	804.91	62
Well 2	795.11	0	795.11	700

### Summary of Aquifer Tests and Data Analysis

A 24-hour aquifer test was conducted on TPW-11 and TW-1 in December 2024. In preparation for the aquifer test, background water levels in OW-1 were monitored for approximately two days to establish natural trends. The test itself utilized Test-Production Well No. 11, pumping at a rate of 425 gpm for 24 hours, followed by a 96-hour recovery period. Drawdown and recovery data were recorded in the pumping well, OW-1 and OW-2 using pressure transducers and data loggers. Although Well No. 2 lacked above-grade measurement capability, its final water level at the end of pumping was taken using an air-line, and its pump was shut off several days prior to and throughout the test. The discharge water was directed 100 feet east.

Background monitoring revealed a minor correlation between atmospheric pressure changes and water levels in OW-1, with a slight decrease in water level corresponding to an increase in atmospheric pressure. However, the installation and operation of the test pump during the later background period significantly altered water levels, effectively masking further barometric effects. Consequently, the barometric efficiency of the aquifer was not calculated or applied to the data, as any such correction was deemed insignificant compared to the observed drawdowns.

Production wells (Nos. 6, 7, and 8) continued normal operation during the test and did not have any discernable interference with water levels at the TPW-11 wellsite

W&W analyzed the time-drawdown and recovery data to obtain aquifer hydraulic characteristics. The time-drawdown data was analyzed using the methods of Cooper-Jacob, Hantush-Jacob, and Theis (1935). The analyses provided Transmissivity (T) and Storativity (S) values as shown in Table 4.

**Table 4: Summary of Consultant's T and S Values**

<b>Wells Analyzed</b>	<b>Solution Method</b>	<b>Transmissivity (T) (gpd*/ft)</b>	<b>Storativity (S) (dimensionless)</b>
OW-1, OW-2	Cooper-Jacob (1946)	5,065	0.0002
TPW-11, OW-1, OW-2	Hantush-Jacob (1955)	5,389	0.0004409
TPW-11, OW-1, OW-2	Theis (1935)	4,527	0.0004188
<b>Chosen Method</b>	Hantush-Jacob (1955)	5,389	0.0004409

\*gpd = gallons per day

W&W estimated a T value of 720 square feet per day (ft<sup>2</sup>/day), or 5,389 gpd/ft. S values ranged between 0.0002 to 0.0004, with 0.0004 chosen for further calculations (see Table 4). The aquifer thickness was reported as 225 feet, giving a hydraulic

conductivity of 3.2 ft/day.  $K_z/K_r$  was set at one and  $1/B$  of 0.0007066 corresponds to a  $B$  of 1,428 feet.

Two distinct "recharge-type" breaks in the drawdown curves, occurring at approximately 40 minutes and 250 minutes (figure 1). Several potential explanations for these breaks were considered in the report, with the most plausible being leakage from the Grand River over a broad reach of the river. Leakage would align with the observed widespread drawdown propagation and gradual "leaky" behavior in later times.

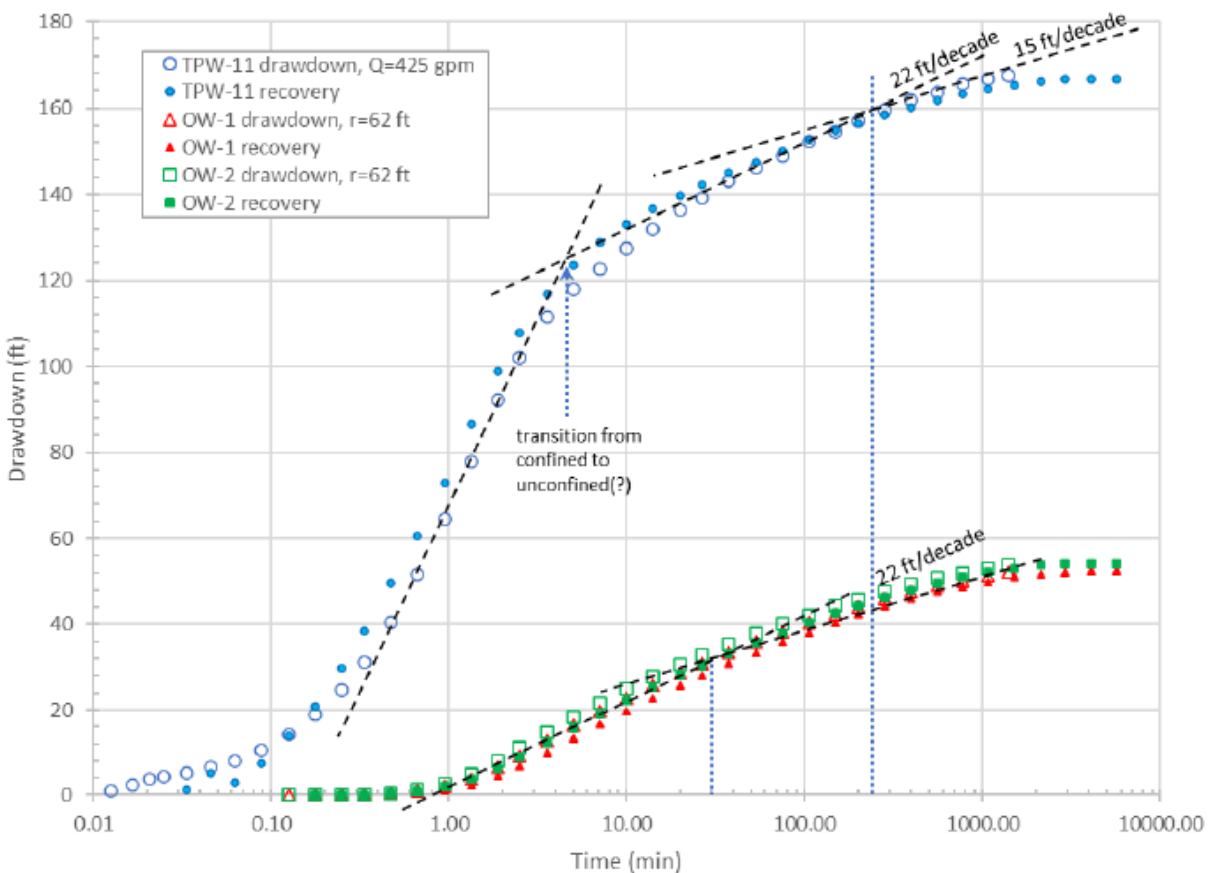


Figure 1 W&W graph of time-drawdown day at TPW-11, OW-1, and OW-2 showing recharge-type events at 40 and 250 minutes

The consultant applied the Cooper-Jacob straight-line method, and the early data yielded low  $T$  values ( $0.47 \text{ ft}^2/\text{min}$ ) with reasonable storage coefficients (0.0002). Examination of late-time trends suggested minor horizontal anisotropy, with slightly greater drawdowns observed towards the north. Given the apparent leaky nature of the aquifer, the Hantush-Jacob analytical model was also applied. This method, which is considered appropriate given the potential leakage from the Grand River, resulted in a similar  $T$  but a higher storage coefficient and a low leakage factor ( $B = 1,428$  feet).

A confined aquifer analysis using the Theis method with an iteratively placed image well located about 800 feet north of the pumping well also provided a good curve match, with comparable T (0.42 ft<sup>2</sup>/min) and storage coefficient (0.0004) values.

Based on these analyses, the estimated equivalent porous media T of the bedrock aquifer ranges from 0.42 to 0.49 ft<sup>2</sup>/min, and the storage coefficient is between 0.0002 and 0.0004. The parameters derived from the leaky-confined analysis (T = 0.5 ft<sup>2</sup>/min, S = 0.0004, B = 1428 feet) were selected for future use as the model's assumptions better align with the site's geological conditions. Note, the T coefficient chosen is rounded up.

A check of these parameters against observed drawdowns indicated a calculated drawdown of approximately 131 feet at a distance of one foot after one day of pumping, implying a significant well loss correction factor of about 78 percent.

SWU staff re-analyzed the time-drawdown data for this project using the same methods as the consultant and agreeing that the Hantush-Jacob (1955) solution for a pumping and recovery test in a leaky-confined aquifer with no storage in the aquitards. The analysis was completed using the aquifer analysis software AQTESOLV for Windows, version 4.50 (Duffield, 2007). From these analyses, we see T values in the range of 4,653 ft<sup>2</sup>/day (34,828 gpd/ft), and an S value of 0.0004323. A comparison of the observed drawdown to projected drawdown suggests the wells are approximately 82 percent efficient, slightly better than the consultants value. The close match between SWU and W&W analyses implies validity of the analysis results. The response of the aquifer to the withdrawal of groundwater and the resultant characterization indicates the leaky-confined aquifer at the TPW-11 wellsite has a "low" geologic sensitivity.

### **Water Quality**

Water quality analysis of the site indicated that TPW-11 meets all applicable federal quality standards, with the exception of objectionable hardness. Corrosion indices of water samples collected from TPW-11 were calculated. With chloride concentrations of 2.23 mg/L and sulfate concentrations of 16 mg/L, the resultant ratio is 0.14, indicating a low ability to cause galvanic corrosion of lead

### **100-Day Drawdown**

It is an accepted practice to predict drawdown for 100 days of continuous pumping with no recharge to the aquifer. W&W estimated the 100-day drawdown of TPW-11 with both wells pumping (400 gpm) as 180 feet. SWU staff re-analyzed the 100-day drawdown pumping continuously at 400 gpm using the same coefficients, and the drawdown estimated is slightly higher, at 194.99 feet.

### **Interference**

Interference is defined as the drawdown in a well caused by pumping a nearby well or wells. The total effect on any one well is the total of all drawdown interferences created by nearby pumping wells (Driscoll, 1986). W&W calculated interference between Well 2

Steven Cummins

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( $r=700$  feet) and TPW-11 based upon T and S values from the pumping well; at a rate of 425 gpm. Well 2 pumps at 400 gpm. In these conditions additional drawdown is too great. Reducing the capacity of TPW-11 to match Well 2 at 400 gpm reduces the interference, calculated to be an additional 15 feet at Well 2 and a total 175-180 feet at TPW-11.

### **Conclusion and Recommendation**

Based on the information presented in the report submitted by W&W, SWU staff concluded that TPW-11 can support the capacity of 400 gpm. Based on the 100-day drawdown calculated and the interference from other wells, it is suggested that the pump intake for TPW-11 should be placed at a depth between 205-240 feet bgl.

cc: Brandon Morrill, EGLE  
Brock Howell, EGLE

## References

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GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION



PHILLIP D. ROOS  
DIRECTOR

April 30, 2025

VIA EMAIL

Kurt Ristow, Public Works Superintendent  
City of Grand Ledge  
310 Greenwood Street  
Grand Ledge, Michigan 48837

WSSN: 02770  
County: Eaton

Dear Kurt Ristow:

SUBJECT: City of Grand Ledge – Aquifer Analysis Review

This letter is in response to the Aquifer Test Review (ATR) for the report entitled “Groundwater Resource Evaluation – Proposed Test Production Well No. 11” (Report), produced by Dan Whalen, William & Works, and received by EGLE on January 28, 2025. The ATR was completed by Travis Bauer, hydrogeologist, Source Water Protection Unit (SWU), Department of Environment, Great Lakes, and Energy (EGLE). A copy of Travis Bauer’s ATR is enclosed.

The ATR concluded that Test Well 11 (TW11) can support the capacity of 400 gallons per minute (gpm), as proposed by the consultant, with consideration given to Well 2’s current production of 400 gpm. Based on the 100-day drawdown calculated and the interference from Well 2, the pump intake is recommended to be placed at a depth of 205 to 240 feet below ground level. The aquifer test results will also be reviewed by EGLE’s Drinking Water and Environmental Health Division Peer Review Team for treatment and monitoring recommendations, if any.

Please note that a construction permit must be obtained prior to installing a new pump in TW11, with a capacity of 400 gpm, and the well cannot provide water to the city of Grand Ledge (City) drinking water system until a commence operation letter, issued by EGLE, is sent to the City. If you have any questions regarding this correspondence, please contact me at 517-914-0933, or by email at [CumminsS3@Michigan.gov](mailto:CumminsS3@Michigan.gov), at your convenience.

Sincerely,

Steven Cummins  
Drinking Water and Environmental  
Health Division  
Field Operations Section  
Lansing District Office  
[CumminsS3@michigan.gov](mailto:CumminsS3@michigan.gov)  
517-914-0933

Attachment

cc: Adam Smith, City  
Dan Whalen, Williams & Works  
Thomas McDowell, EGLE  
Travis Bauer, EGLE  
Brock Howell, EGLE