



March 16, 2017

Project No.1541147

Mr. James Gamble, Supervisor  
MDEQ Source Water Unit  
Drinking Water and Municipal Assistance Division  
P.O. Box 30241  
Lansing, MI 48909-7741

**RE: REQUEST FOR ADDITIONAL INFORMATION  
PERMIT APPLICATION, UNDER SECTION 17 OF THE MICHIGAN SAFE DRINKING WATER  
ACT, 1976, PA 399, AS AMENDED  
WHITE PINE SPRINGS WELL PW-101**

Dear Mr. Gamble,

Golder Associates, Inc. (Golder) on behalf of Nestle Waters North America (NWNNA) has compiled the following information requested by the Michigan Department of Environmental Quality (MDEQ) via letter dated February 14, 2017 (Appendix A). The letter seeks additional information and electronic data related to the referenced Application Information Package<sup>1</sup> for NWNNA well PW-101, located in Osceola Township, Osceola County. The request for additional information was organized under the following headers:

- Groundwater Model
- Streamflow Data
- Fish, Macroinvertebrates, and Aquatic Habitat Data
- Wetlands
- Reasonable Use and Michigan Water Law

This response sequentially follows the information request. Electronic data requested by MDEQ are provided on an attached USB drive, which is referenced throughout the following responses. The USB drive is organized as follows:

- Appendix A – MDEQ Request (one file)
- Appendix B – Groundwater Model (five folders)
- Appendix C – Streamflow Data (two files)
- Appendix D – Fish Macroinvertebrate Aquatic Habitat (eleven files)
- Appendix E – Wetlands (six files)
- Appendix F – Legal (two files)

Appendices of reasonable size are printed and bound with the response. Large data files are provided in electronic format only.

---

<sup>1</sup> Application Information Package, Production Well PW-101, White Pine Springs Site, Osceola Township, Osceola County, Michigan. Golder Associates Inc., July 2016.

p:\15x-projects\1541147 nwnna wps section 17\200 report\response to deq\wnna mdeq response letter - final.docx

**Golder Associates Inc.**  
15851 South US 27, Suite 50  
Lansing, MI 48906 USA

Tel: (517) 482-2262 Fax: (517) 482-2460 [www.golder.com](http://www.golder.com)

Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation



## 1.0 GROUNDWATER MODEL

1. Electronic copies of all input and output data files used in the MODFLOW groundwater model (Groundwater Vistas format):

- *The groundwater model developed to evaluate effects of pumping PW-101 is described in detail in Attachment C to the Application Information Package. Attachment C contains detailed information on the finite difference grid used for the groundwater model, the model structure, model parameters and model boundary conditions. The information provided is sufficient for others to develop a model that would approximately replicate the analyses that have been conducted for evaluating the effects of the proposed increased in pumping at PW-101. In addition, the report provides graphics illustrating the results of the groundwater model calibration including comparison of model calculated and observed drawdowns during aquifer test of PW-101. Attachment C also contains an evaluation of the sensitivity of parameters in the groundwater model and a discussion in the uncertainty of model calculations of the effects of increasing pumping of PW-101.*

*The input and output files for the groundwater model are contained on the attached USB drive in the folder labelled Appendix B – Groundwater Model, under the subdirectory **lmodel files**. The model files can be viewed in Groundwater Vistas. A “readme” file that accompanies that model files explains the files provided and provides instructions for running the model.*

2. All supporting (electronic) data files, base map files, calibration data files, graphs, maps and tables, etc., used to construct the Groundwater Vistas model or the presentation of groundwater modeling results in S.S. Papadopoulos & Associates, Inc.’s July 2016 “Evaluation of Groundwater and Surface Water Conditions in the Vicinity of Well PW-101, Osceola County, Michigan.”

- *Electronic files for the base map and all of the graphics used for the presentation of model structure, model calibration and model results in Appendix C of the Application Information Package are also contained on the attached USB drive in the folder labelled Appendix B – Groundwater Model, under the subdirectory **lgraphics**. Map files are in ArcGIS version 10 format. The basic data used to develop the groundwater model were geologic borings from monitoring wells, geologic logs from the MDEQ database, groundwater level data and stream flow data from site monitoring, and groundwater level data from MDEQ database. Electronic copies of the logs for the monitoring wells, and the water level and stream flow data available at time of model development are also contained on the attached USB drive in the folder labelled Appendix B – Groundwater Model, under the subdirectory **lbasic data**.*

## 2.0 STREAMFLOW DATA

1. Any streamflow measurement data collected in Chippewa Creek and Twin Creek watersheds after October 2015:

- *Streamflow measurement data collected after October 2015 are provided in Appendix C as Table C-1, and on the attached USB drive in the folder labelled Appendix C – Streamflow Data, under the file name Table C1 - Stream Flow Table.*

2. All electronic Flow Tracker data files available for measurements collected in 2015 and 2016:

- *Electronic Flow Tracker data files for measurements collected in 2016 are provided on the attached USB drive in the folder labelled Appendix C – Streamflow Data, under the file name Table C-2 – 2016 Precipitation and Flow Tracker Files. Note that these files are provided in electronic format only, and not printed. Electronic Flow Tracker data files prior to March 15, 2016 were not preserved after being manually recorded.*

3. A site map, which includes all streamflow measurement locations in the Chippewa Creek and Twin Creek watersheds:
  - *A site map was provided as Figure 3.8 of the Application Information Package.*
4. If Nestlé Waters North America, Inc. (Nestlé), implemented modifications to the streamflow measurement protocol since the last version received by the DEQ, update the March 2, 2015, Streamflow Measurement Protocol for the city of Ewart and White Pine Springs memo.
  - *Nestle has not modified the streamflow measurement protocol since March 2, 2015.*

### 3.0 FISH, MACROINVERTEBRATES, AND AQUATIC HABITAT DATA

1. Individual sampling event data tables for fish, macroinvertebrates, stream dimensions, and water temperature for each sampling event for each creek:
  - *Fish data are provided for each sampling event from 2003 through 2016 in the attached updated Table D1a, titled "Fish species collected from Twin Creek and Chippewa Creek from 2003 through 2016" (Appendix D1). The table is also on the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrates Aquatic Habitat, under the file name D1a – Fish.*

*The 2003 fish-sampling event was conducted using a triple pass removal method, while the fish surveys were conducted using a single pass removal.*
  - *Aquatic macroinvertebrate data are provided for each sampling event from 2003 through 2016 in the attached updated Table D1b, titled "Aquatic macroinvertebrates collected from Twin Creek and Chippewa Creek from 2003 through 2016" (Appendix D1). The table is also on the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrates Aquatic Habitat, under the file name D1b - Macroinvertebrates.*
  - *Stream dimension and water temperature data were collected from 2008 through 2016 for Twin Creek and Chippewa Creek, and are provided in the attached Table D1c (Appendix D1). The table is also on the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrates Aquatic Habitat, under the file name D1c – Stream Dimensions and Temperature.*
2. Describe the methods used for habitat, fish collection, and macroinvertebrate collection:
  - *A brief summary of methods and cited literature is provided as Appendix D2, and is also on the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrates Aquatic Habitat, under the file name D2 – Methods.*
3. Provide catch per unit effort for fish collection, including the length of stream, time sampled, fish length and weight:
  - *Catch-per-unit-effort is provided in data tables provided as Appendix D3. The table is also on the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrates Aquatic Habitat, under the file name D3 – Catch per Unit Effort. Length data is summarized by year and combined for years 2003 through 2016. Weight data is summarized by year and combined for years 2003 through 2016.*

4. Revise Figure 1-2 in S.S. Papadopulos & Associates, Inc.'s 2016 report "White Pine Springs Evaluation of Fish, Macroinvertebrates, and Aquatic Habitat Resulting from an Increase in Groundwater Withdrawal" to show the location of Station SF8-1:
  - *The referenced report was prepared by Advanced Ecological Management, LLC and not S.S. Papadopulos & Associates, Inc.*
  - *Station SF8-1 was improperly referenced. Any reference of Station SF8-1 in the report corresponds to Station SG5. Therefore, Figure 1-2 properly references Station SG5.*
5. Table 2 in the same report has several errors regarding Orders and Families: Order Basommatophora, Family Physidae and Order Pulmonata, Family Physidae should be consolidated into one category; Order Ephemeroptera and Family Letohyphidae should be Family Tricorythidae; Order Plecoptera, Family Philopotamidae should be Order Trichoptera:
  - *An updated Table 2 is provided as Appendix D1b and in the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrates Aquatic Habitat, under the file name D1b – Macroinvertebrates*
  - *Macroinvertebrates in the Family Physidae have been combined under Order Basommatophora, and macroinvertebrates in the family Philopotamidae are now properly referenced to the order Trichoptera.*
  - *The spelling of the Family LeptoHyphidae (Order Ephemeroptera) has been corrected.*
  - *According to Ethan Bright of the Museum of Zoology Insect Division and School of Natural Resources and Environment, University of Michigan, (Personal communication, February 14, 2017), the genus Tricoythodes is properly categorized under the Family LeptoHyphidae.*
6. D-framed kick nets were used to survey mussels and the reference provided (Merrit, et al., 1996) is for aquatic insect sampling. Please confirm whether mussels were collected using D-framed kick nets. If not, please provide a reference for the method that was actually used. If D-framed kick nets were actually used, please note that this is not an appropriate method for mussel sampling and refer to the following links for methods that should be used in the future:

<https://wildlife.ohiodnr.gov/portals/wildlife/pdfs/licenses%20&%20permits/OH%20Mussel%20Survey%20Protocol.pdf>

[https://www.fws.gov/westvirginiafieldoffice/PDF/West\\_Virginia\\_Mussel\\_Survey\\_Protocols\\_March\\_2014.pdf](https://www.fws.gov/westvirginiafieldoffice/PDF/West_Virginia_Mussel_Survey_Protocols_March_2014.pdf)

  - *All aquatic surveys included a visual inspection of the substrate for the presence of mussels. No larger mussels have ever been observed in any of the stations that have been surveyed that would warrant the use of either protocol referenced in the MDEQ information request. No mussels were collected using D-framed kick nets. Smaller snails and fingernail clams have been readily collected using standard D-framed kick nets as part of the standard aquatic macroinvertebrate surveys.*
7. Provide water temperature details for Stations SF9, SF8, and SG5, and how the proposed withdrawal increase could affect those stream temperatures;
  - *Water temperature data as recorded by three HOBO® Water Temp Pro V2 for Stations SF9 (Twin Creek), SF8 and SG5 (Chippewa Creek) have been provided in a spreadsheet format. The spreadsheet is on the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrate Aquatic Habitat, under the file name D7 – HOBO temperature spreadsheet.*

*The maximum water temperature change as a result of the proposed increase in withdrawal rate from 150 gpm to 400 gpm was predicted to be less than 0.2 °C closest to the vicinity of PW-101 (Evaluation of Groundwater and Surface Water Conditions in the Vicinity of Well PW-101, Osceola County, Michigan; S.S. Papadopulos and Associates, Inc. July 2016, Page 24). Sample stations that are surveyed by AEM closest to the vicinity of PW-101 include Stations SF1, SF5, and SF5-6 of Twin Creek, and SG5 and SF8 of Chippewa Creek. The predicted change in water temperature at Station SF9 (Twin Creek) is expected to be less than would be observed in the stations that are closer to the vicinity of PW-101.*

8. Provide detailed information regarding changes in streamflow, depth, and temperature for each station and the impacts to macroinvertebrates:

- *The predicted decrease in streamflow at Station SF9 (Twin Creek) is expected to be 118 gallons per minute. Stage reduction (change in depth) in SF9 is expected to be 0.012 feet, and the expected change in water temperature is expected to be less than 0.2°C. The impacts to macroinvertebrates at Station SF9 are expected to be de minimis based on the predicted changes in flow, depth, and water temperature.*
- *The combined reduction in streamflow of SG5 and SF8 (Chippewa Creek) is expected to be 20 gallons per minute, where the reduction of streamflow in SF8 will be approximately 13 gallons per minute and the reduction in SG5 will be approximately 7 gallons per minute. The predicted changes in water depth in Stations SF5 and SF8 are expected to be on the order of 0.01 feet.*
- *The predicted change in water temperature will be on the order of 0.2°C. The impacts to macroinvertebrates in Stations SG5 and SF8 are expected to be de minimis based on the predicted changes in flow, depth, and water temperature.*
- *Examples of the predicted flow reduction and its influence on the stream cross section profiles of Stations SF8 and SF9 are included on the attached USB drive in the folder labelled Appendix B – Groundwater Model, under the subdirectory **width-depth**. Stream cross section profiles at gauging stations SF-8, SF-9, and SF-17 are provided in Appendix D8, and are also on the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrate Aquatic Habitat, under the file name D8 - Stream Profiles.*

9. Identify all road/stream crossings for Chippewa and Twin Creeks, provide photographs of these stream crossings, existing dimensions of culverts or bridges, stream widths, and stream depths. Project changes to stream widths and depths due to the proposed withdrawal increase:

- *Advanced Ecological Management, LLC (AEM) conducted a survey of all road crossings of Twin Creek and Chippewa Creek within Osceola County, Michigan on March 8, 2017. This road crossing data were collected to respond to a request for additional information from the MDEQ, related to the Nestlé Waters North America permit application under Section 17 of the Michigan Safe Drinking Water Act, 1976 Public Act 399, as amended. The purpose of the road crossing survey was to identify all road/stream crossings of Twin Creek and Chippewa Creek; to provide photographs of each crossing, existing dimension of each bridge or culvert; to provide dimensions of the stream at each crossing, including depth and width; and to project changes to stream widths and depths due to the proposed withdrawal increase. AEM has relied on S.S. Papadopulos and Associates to provide predictions of water depth and width changes at each crossing based on a withdrawal rate of 400 gallons per minute from PW-101.*

*AEM collected photographs of the upstream and downstream extent of each road crossing. Culvert width or bridge width was measured at the widest point of the downstream extent of each crossing structure. Stream depth at the culvert or bridge structure was typically measured in three locations across the crossing structure, which included 20 percent, 50 percent and 80 percent of the total structure width.*

AEM measured stream width and depth downstream of the road crossing in a location that appeared to be minimally or unaffected by the presence of crossing structure. Like the culvert depth measurements, stream depth was measured in three locations at 20 percent, 50 percent, and 80 percent of the total stream width. Most stream dimension measurements were collected from approximately 10 to 75 feet downstream of each road crossing when possible. AEM also noted general conditions of the crossing, with respect to fish passage. For example, AEM identified crossing structures that were perched above the stream surface at the time of the survey.

AEM could access and measure a total of 18 road or former railroad crossing structures on Twin Creek and a total of six crossing structures on Chippewa Creek (Appendix D9 - Figure D9-1, Stream Crossing Locations). Photographs of each crossing structure are provided in Appendix D9. The figure, table, and photographs are also on the attached USB drive in the folder labelled Appendix D – Fish Macroinvertebrate Aquatic Habitat, under the file names:

- D9 – Figure D9-1 - Stream Crossing Locations
- D9 – Table D9-1 - Stream and Road Crossings (dimensions, widths, depths)
- D9 - Photographs

The maximum predicted change in stream channel width and depth is expected to occur in the vicinity of PW-101. The maximum predicted change in stream depth in the immediate vicinity of PW-101 of Twin Creek or Chippewa Creek is expected at most a few hundredths of a foot. The predicted change in stream width is expected to be very small in the immediate vicinity of PW-101. No crossing structures are located in the immediate vicinity of well PW-101. The predicted change at all crossing structures would thus be less than the predicted change in the immediate vicinity of PW-101, and would not be detectable given the inherent variability in stream flow during baseflow conditions (late summer months), or on an annual basis.

10. Provide rating curves and temperature data for Chippewa and Twin Creeks and describe how the rating curves were developed:

- The rating curves that have been developed for site gaging locations and an explanation of how the curves were developed are contained on the attached USB drive in the folder labelled Appendix B – Groundwater Model, under the subdirectory **width-depth**. The stream channel configurations at most of the gaging stations naturally change with time as the result of debris accumulation and removal and erosion and deposition. As a result, rating curves for the streams are continually changing. Rating curves developed for short periods are illustrative of the magnitude of stream level change with flow. The rating curves that were developed are based on a short period between 2001 and 2003. These are supplemented with cross-section profiles of the streams developed based on 2016 data for flows spanning the range of average flows calculated with and without the increased pumping from PW-101 (assuming PW-101 is pumped constantly at permitted capacity).

The surface water temperature data illustrated on Page 9 of the "Evaluation of Groundwater and Surface Water Conditions in the Vicinity of Well PW-101, Osceola County, Michigan (Attachment C of the Application Information Package) is provided in the file in the in USB drive in the folder labelled Appendix D – Fish Macroinvertebrate Aquatic Habitat, under the file name D10 – Surface Water Temperatures. Please note that these data coincide with the temperature data provided in response to Question #7, which are provided on the USB drive in the folder labelled Appendix D – Fish Macroinvertebrate Aquatic Habitat, under the file name D7 – HOBO temperature spreadsheet.

11. Describe the inputs to the United States Geological Survey program Stream Segment Temperature Model Version 2.0 used by S.S. Papadopoulos & Associates, Inc., and how they were determined.

- *The inputs for the Stream Segment Temperature model are contained in the file in the in USB drive in the folder labelled Appendix B – Groundwater Model, under the subdirectory subdirectory **ISSTEMP**. The inputs were derived from weather data from Big Rapids, site-data, and professional judgement.*

#### 4.0 WETLANDS

1. In the Environmental Consulting & Technology, Inc. (ECT) report, reference is made to water level measurements, soil samples and monitor wells. Please provide this data as well as any additional monitoring observations, plant identification, etc., conducted by ECT. Copies of soil boring logs identifying soil sample descriptions and depths, any sieve analyses, and water levels measured/used in the wetlands evaluations should be submitted. The data should be clearly presented in table or other appropriate format and a map of all data locations provided. The latitude/longitude in decimal degrees and North American Vertical Datum (NAVD) of each sample or measurement location should be provided if known. Were multiple borings taken within each wetland to document consistent soil layers?
  - *Although it was not tabulated in the report, all of the soil data collected by ECT was reported in the text (Section 3.0) of the aforementioned report (Attachment E of the Application Information Package). Table E-1 has been prepared to summarize ECT's recorded observations of soil saturation, depth of surface water, and descriptions of soils as observed in shallow soil probes. Table E-1 is also provided on the USB drive in the folder labelled Appendix E – Wetlands, under the file name Table E-1 – Tabulated White Pine Springs wetland data.*
  - *Multiple maps illustrating the mapped wetlands, the locations of soil probes and observations made within the wetlands, and the nearest monitoring wells to the wetlands were provided as Figures 3 through 9 of Attachment E of the Application Information Package. Note that multiple soil probes were conducted in Wetlands B and D (Figure 3), Wetland X (Figure 5), and Wetland CC (Figure 8). The locations of ECT soil probes and observations shown on Figures 3 through 9 are approximate.*
  - *Dominant species of wetland vegetation observed by ECT and recorded in ECT's field notes were reported in the text (Section 3.0) of Attachment E of the Application Information Package.*
  - *Water level measurements in monitoring wells and shallow drive points referenced in the aforementioned report (Attachment E of the Application Information Package) are provided on the USB drive in the folder labelled Appendix E – Wetlands, under the file name Table E-2 – Groundwater Monitoring Well Water Levels.*
  - *ECT referenced several groundwater monitoring wells located near the sixteen wetlands assessed by ECT. Boring logs for those monitoring wells referenced in ECT's report were provided in Attachment B of the Application Information Package.*
2. A copy of the wetland delineations and associated reports, data, and maps for the project area (including the Don Tilton report).
  - *ECT relied on wetland mapping and vegetation assessments conducted in 2003 by Tilton & Associates, Inc. to define the location and vegetation characteristics of wetlands within the study area. Tilton & Associates' report is provided on the USB drive in the folder labelled Appendix E – Wetlands, under the file name E2 – Tilton 2004. Tilton & Associates mapped 70 wetlands as shown in Figure 10 of Evaluation of Groundwater and Surface Water Conditions in the Vicinity of Well PW-101, Osceola County, Michigan authored by S.S. Papadopoulos & Associates, Inc (Attachment C of the Section 17 Application Information Package).*
3. Any additional water level measurements available (e.g., prior to and after pumping, current levels, etc.), preferably data close to or in the wetlands.

- *The elevations of the groundwater table at and near the wetlands were estimated using a combination of data sources: 1) groundwater monitoring well data collected at wells near the wetlands, 2) groundwater contours interpolated from groundwater monitoring well data (refer to Figure 3-6 of the July 2016 Section 17 Application Information Package), and 3) regional groundwater contours interpolated from drinking water wells (refer to Figure 2A of Evaluation of Groundwater and Surface Water Conditions in the Vicinity of Well PW-101, Osceola County, Michigan authored by S.S. Papadopoulos & Associates, Inc.). ECT estimated the approximate ground surface elevation near the wetlands from the National Elevation Dataset (NED).*

*Water level measurements in additional monitoring wells, stilling wells, and shallow drive points in or near wetlands are provided in the USB drive in the folder labelled Appendix E – Wetlands, under the file name Table E-3 – Additional Water Levels. A figure showing the locations of these data collection points is provided on the USB drive in the folder labelled Appendix E – Wetlands, under the file name Figure E1 - Monitoring Network.*

4. Explanation of why wetlands underlain by silt, etc., should be considered perched.

- *A discussion of ECT's perched wetland characterization is provided in Appendix E4, which is also provided on the USB drive in the folder labelled Appendix E – Wetlands, under the file name E4 – Characterization of Perched Wetlands.*

## 5.0 REASONABLE USE AND MICHIGAN WATER LAW

1. Section 5. D. of the application package, at pages 23-27, states that:

**“[t]he proposed use is reasonable under common law principles of water law in Michigan,”**

as required by MCL 324.32723(6)(d). Please:

- a. document, by reference to relevant sources of Michigan law (e.g., Michigan case law and authoritative secondary sources), the specific legal bases for Nestlé's stated understanding of “common law principles of water law in Michigan,”
  - i. *Michigan Citizens for Water Conservation v Nestlé Waters North America Inc, 269 Mich App 15 (2005).*
  - ii. *The common law principles are also listed in the MDEQ's Water Withdrawal Permit Application for permits issued under MCL 324.32723. A copy of the instructions and application is provided for reference in Appendix F1, also provided in the USB drive in the folder labelled Appendix F – Legal, under the file name F1– MDEQ Water Withdrawal Permit Application.*
  - iii. *The common law principles are also discussed in the various Permit Decisions and Response to Public Comments issued by the MDEQ with respect to permits issued under MCL 324.32723.*
- b. explain in detail how the proposed use is “reasonable” under the documented “common law principles.”
  - i. *NWNA's bottling of water serves a beneficial purpose. See 269 Mich App at page 74. NWNA's beneficial use of the water resource will not result in any unreasonable harm to any other beneficial uses of the resource.*

*The factors which are relevant to the common law reasonable use balancing test are discussed in Section 5.D. of NWNA's application. Consideration and*



*balancing of these factors demonstrates that the proposed use is reasonable and will not result in any unreasonable harm or interference with another's use of water. NWNA is committed to provide timely rectification for any unreasonable interference with the normal operation of other wells caused by the proposed increased withdrawal, should that occur. See page 22 of the NWNA application. NWNA has proposed to enter into the attached Agreement for Well Owner Assurance with Osceola Township (see Appendix F2 – titled Agreement for Well Owner Assurance). A copy of the Agreement is also provided on the USB drive in the folder labelled Appendix F – Legal, under the file name F2 – Agreement for Well Owner Assurance. NWNA has also committed to address any unexpected adverse hydrologic impacts from the proposed increased withdrawal, should they occur. See page 25 of the NWNA application. NWNA intends to maintain and use its extensive monitoring network surrounding the location of the withdrawal and will continue the regular observation and assessment of nearby streams and wetlands. NWNA will therefore be able to determine whether there is any unreasonable impact beyond what is predicted.*

2. Section 5. F of the application package, at pages 27-28, states that

**“the proposed withdrawal will not violate public or private rights and limitations imposed by Michigan water law or other Michigan common law duties,”**

as required by MCL 324.3723(6)(f). Please:

- (a) document, by reference to relevant Michigan sources of law (e.g., Michigan case law and authoritative secondary sources), the specific legal bases for Nestlé’s stated understanding of “public or private rights and limitations imposed by Michigan water law or other Michigan common law duties,”
- iv. *Michigan Citizens for Water Conservation v Nestlé Waters North America Inc, 269 Mich App 15 (2005).*
  - v. *Part 327 of the Natural Resources and Environmental Protection Act.*
  - vi. *Bott v Natural Resources Comm’n, 415 Mich 45 (1982).*
  - vii. *Michigan Safe Drinking Water Act, MCL 325.1017.*
- b. explain in detail why the proposed withdrawal will not violate the documented “public or private rights or limitations imposed by Michigan water law or other Michigan common law duties.”
- i. *See Paragraph 1(b) above. See also Section 5(C), Section 5(D) and Section 5(F) of the NWNA application.*

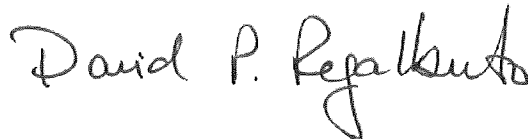
Golder Associates appreciates the nature of the comments sent along from the MDEQ and trusts the information contained herein satisfies your immediate requirements. Please contact us if you have any further questions or concerns regarding this matter.

Sincerely,  
Golder Associates Inc.

**GOLDER ASSOCIATES INC.**



Joel Henry  
Senior Project Hydrogeologist



David. P. Regalbuto, C.P.G.  
Associate & Senior Consultant

Appendices and Enclosures:

The enclosed USB drive contains the following Appendices:

Appendix A – MDEQ Request

Appendix B – Groundwater Model

Appendix C – Streamflow Data

Appendix D – Fish Macroinvertebrates Aquatic Habitat

Appendix E – Wetlands

Appendix F - Legal

jch