



**Department of
Natural Resources**

REPORT

issued by the

Chief of the Division of Water Resources

with technical assistance from the

Division of Geological Survey

**Groundwater Conflict
Village of New Weston
Darke County, Ohio**

Prepared pursuant to Ohio Revised Code 1521.03(E)

Issued: July 21, 2025

Technical Report of Investigations 2025-1

TABLE OF CONTENTS

Abbreviations used in this report	iv
Executive Summary	1
Report	2
1. Overview of the Groundwater Conflict	2
1.1 Complainants and Complainees	2
1.2 Preliminary Review	2
1.3 Request for Assistance	2
1.4 Collection of Information and Data	3
1.5 Meeting	3
1.6 Report	3
2. Background Information	4
2.1 Location and Users	4
2.2 Physiography and Climate	4
2.3 Surface Water	5
2.4 Glacial Geology	5
2.5 Bedrock Geology	5
2.6 Hydrogeologic Setting	6
2.7 Recharge	6
2.8 Aquifer Characteristics	6
2.9 Groundwater Flow Direction	7
2.10 Hydraulic Conductivity	7
2.11 Aquifer Yield	8
3. Data Collection	8
3.1 Initial Visits and Background Monitoring	8
3.2 Continuous groundwater-level monitoring	9
4. Data Analysis	9
4.1 Well Hydrographs	9
4.2 Pumping Signatures	9
4.3 Potential Sources of Impact	10
4.4 Drought Effects	12
4.5 Information on the Record of the Meeting	13
5. Conclusions	13
6. Recommendations	14
7. References	14
Figures	17
Tables	42
Appendices	44
Appendix A. Preliminary Review Letter	44
Appendix B. Darke County General Health District Written Request	46
Appendix C. ODNR-DWR Response Letter	47
Appendix D. Reported Water Facility Withdrawals	48
Appendix E. New Weston Field Measurements	51
Appendix F. Eldora Speedway, Inc. 2024 Schedule of Events	52
Appendix G. CLR Eggs, LLC Well Logs	53
Appendix H. Gelhaus Ag, LLC Reported Irrigation Dates	59
Appendix I. Meeting Comments	60

FIGURES

1.	Location of the Study Area	17
2.	Drainage Basins	18
3.	Glacial Geology	19
4.	Drift Thickness	20
5.	Bedrock Geology	21
6.	Hydrogeologic Settings	22
7.	Net Recharge	23
8.	Primary Aquifers	24
9.	Secondary Aquifers	25
10.	Cross Sections A-A' and B-B' in map view	26
11.	Cross Section A-A'	27
12.	Cross Section B-B'	28
13.	Bedrock Potentiometric Surface	29
14.	Hydraulic Conductivity	30
15.	Primary Aquifer Yield	31
16.	New Weston Continuous Monitoring and Field Measured Sites	32
17.	Hydrograph with New Weston Field Sites	33
18.	Hydrograph Showing Highlighted External Pumping Signatures	33
19.	Hydrographs: Eldora Speedway, Inc.	34
20.	NW 1 and NW 3: Eldora Speedway, Inc.	34
21.	Distance-Drawdown: Eldora Speedway, Inc.	35
22.	Hydrographs: CLR Eggs, LLC	36
23.	NW 1 and NW 3: CLR Eggs, LLC	36
24.	Distance-Drawdown: CLR Eggs, LLC	37
25.	Hydrographs: Gelhaus Ag, LLC	38
26.	Distance-Drawdown: Gelhaus Ag, LLC	39
27.	Hydrographs of NW 1-5 with Drought Index	40
28.	Depth of Water: MR-2	41

TABLES

Table 1.	Complainee Facilities	42
Table 2.	Descriptions of Hydrogeologic Settings in the Study Area	42
Table 3.	Wells Used for Continuous Monitoring	42
Table 4.	Static Water Levels and Maximum Drawdowns Calculated	43
Table 5.	Percent of Available Head Remaining from External Pumping Event	43
Table 6.	CLR Eggs, LLC New Wells and Test Rates	43

ABBREVIATIONS USED IN THIS REPORT

Units of Measure

amsl above mean sea level
bls below land surface
DTW depth to water
ft feet
ft³/sec cubic feet per second
gpm..... gallons per minute
MG million gallons
SWL..... static water level

Other

NCEI National Centers for
Environmental Information
NIDIS..... National Integrated
Drought Information
System
NOAA National Oceanic and
Atmospheric Administration
ODNR..... Ohio Department of Natural
Resources
ODNR-DGS..... ODNR Division of Geological
Survey
ODNR-DWR ODNR Division of Water
Resources
ORC..... Ohio Revised Code

EXECUTIVE SUMMARY

This Report is issued by the Chief of the Ohio Department of Natural Resources (ODNR), Division of Water Resources pursuant to Ohio Revised Code (ORC) 1521.03(E), under which the Chief has authority to assist in the resolution of conflicts between groundwater users by collecting and presenting available technical data and information relevant to the conflict and the groundwater resource.

In July of 2023, a potential conflict was raised by residents of the Village of New Weston in Darke County, Ohio, who claimed their wells had been dewatered and suspected nearby groundwater withdrawal facilities to be the possible cause of the dewatering. In August of 2023, ODNR completed a preliminary review of this potential groundwater conflict, finding that the dewatering of the wells was likely caused by a new irrigation well drilled in June of 2023 by Gelhaus Ag, LLC immediately adjacent to the Village of New Weston.

In September of 2023, the Board of Health of the Darke County General Health District submitted a written request to the Chief pursuant to ORC 1521.03(E) to hold a meeting to assist in the resolution of this groundwater conflict. In October of 2023, the Chief granted that request and, with the assistance of the ODNR Division of Geological Survey, collected the available technical data and information relevant to the conflict and to the groundwater resource and presented it at a meeting held in March of 2025. That data and information, and the additional information on the record of the meeting, was consistent with the preliminary review.

The Chief now issues this Report and makes the following recommendations about the use of the groundwater resource based upon the available technical data and information, and the record of the meeting, to assist in the resolution of this conflict between groundwater users.

Resolution of this groundwater conflict may be achieved by:

- (1) Reducing the pumping rate of Gelhaus Ag, LLC's irrigation well;
- (2) Decreasing the duration of Gelhaus Ag, LLC's irrigation well pumping to allow for additional recovery of groundwater levels between pumping events;
- (3) Pumping of Gelhaus Ag, LLC's irrigation well at times when there is less water demand by groundwater users in the Village, such as late evening or overnight, to reduce its impact on daytime water use within the Village; and
- (4) Deepening or replacing dewatered shallow wells with deeper wells to reach lower intervals of the local aquifer.

REPORT

1. Overview of the Groundwater Conflict

1.1 Complainants and Complainees

The Complainants in this Groundwater Conflict are groundwater users in the Village of New Weston, Darke County, Ohio, who have claimed their wells were dewatered because of pumping from non-domestic groundwater users around the Village. Twelve Complainants were listed as recipients in the Preliminary Review Letter issued by ODNR (Appendix A). Additional Complainants include other water users who have experienced dewatering in and around the Village.

The Complainees in this Groundwater Conflict are three groundwater users that the Complainants believed may have caused the dewatering of their wells: (1) Eldora Speedway, Inc.; (2) CLR Eggs, LLC; and (3) Gelhaus Ag, LLC. The Complainees were also listed as recipients on the Preliminary Review Letter (Appendix A).

1.2 Preliminary Review

On July 12, 2023, ODNR's Division of Water Resources (DWR) was first contacted by one of the Complainants about a potential groundwater conflict, alleging that water wells in the Village of New Weston had been dewatered. From mid-July to mid-August 2023, ODNR's Division of Geological Survey (DGS) contacted the Darke County Health District and each of the Complainants and Complainees to gather information. ODNR-DGS assessed the local aquifer properties, pump capacities, Complainee and Complainant well construction details, and the nature of the Complainees' pumping. This information was used to determine if dewatering of the Complainants' wells by each Complainee was plausible.

ODNR-DGS found that most of the dewatered wells were reported to have been older, shallower (less than approximately 80 feet in total depth), and/or of small-diameter casing (e.g., 4 inches), making these wells more susceptible to dewatering. The proximity of the Complainants' wells to nearby Complainees' wells was also investigated, and the wells that had experienced the greatest groundwater declines were closest to the property owned by Complainee Gelhaus Ag, LLC, which lies immediately adjacent to New Weston. It was noted that Gelhaus Ag, LLC had installed a new irrigation well (ODNR well log #3008273) on June 8, 2023, and pumping of that well coincided with dewatering reported by the Complainants during the summer of 2023. The other two Complainees—CLR Eggs, LLC and Eldora Speedway, Inc.—were located approximately 2.3 and 1.4 miles from New Weston, respectively. The relative distances of those two Complainees, the magnitude of their withdrawals, and proximity to the Wabash River—which was noted as a partial hydrologic boundary—indicated that those Complainees were unlikely to have been significant contributors to groundwater dewatering in the area.

On August 25, 2023, a Preliminary Review Letter (Appendix A) was sent to Complainants, Complainees, and the Darke County General Health District. The Preliminary Review Letter stated that the dewatering of Complainants' water wells in the Village of New Weston was likely caused by the recent pumping of the new Gelhaus Ag, LLC irrigation well (ODNR well log #3008273). However, it noted that these conclusions were based on communications and estimates derived from existing hydrogeologic data and the absence of field confirmation. The letter also stated the assessment of the cumulative effects of all groundwater withdrawals in the region was outside the scope of the Preliminary Review. The letter also established that, if deemed necessary, local officials could make a written request to the Chief of the ODNR-DWR to hold a public meeting or hearing to assist in the resolution of this conflict between groundwater users pursuant to ORC 1521.03(E).

1.3 Request for Assistance

On September 20, 2023, the Darke County General Health District's Board of Health (Board)

sent a written request to the Chief of ODNR-DWR to assist in the resolution of this conflict between groundwater users in the Village of New Weston, Ohio, pursuant to ORC 1521.03(E) (Appendix B). Under that section, the Chief is given the authority to assist in the resolution of conflicts between groundwater users by collecting and presenting available technical data and information relevant to the conflict and the groundwater resource in a meeting or public hearing and then issuing a report. ORC 1521.03(E) states the Chief shall:

“Hold meetings or public hearings, whichever is considered appropriate by the chief, to assist in the resolution of conflicts between ground water users. Such meetings or hearings shall be called upon written request from boards of health of city or general health districts created by or under the authority of Chapter 3709 of the Revised Code or authorities having the duties of a board of health as authorized by section 3709.05 of the Revised Code, boards of county commissioners, boards of township trustees, legislative authorities of municipal corporations, or boards of directors of conservancy districts and may be called by the chief upon the request of any other person or at the chief’s discretion. The chief shall collect and present at such meetings or hearings the available technical information relevant to the conflicts and to the ground water resource. The chief shall prepare a report, and may make recommendations, based upon the available technical data and the record of the meetings or hearings, about the use of the ground water resource. In making the report and any recommendations, the chief also may consider the factors listed in division (B) of section 1521.17 of the Revised Code. The technical information presented, the report prepared, and any recommendations made under this division shall be presumed to be prima facie authentic and admissible as evidence in any court pursuant to Evidence Rule 902.”

On October 5, 2023, the Chief issued a Response Letter (Appendix C) acknowledging receipt of the Board’s written request, granting that request, and stating that ODNR would proceed to collect the technical information, prepare the report, and coordinate with the Board on a time and place for the meeting, as required under ORC 1521.03(E).

1.4 Collection of Information and Data

ODNR-DGS assists the Chief of ODNR-DWR in the performance of their duties under ORC 1521.03(E) by collecting the available technical data and information relevant to a groundwater conflict and groundwater resource, and then presenting that data and information at a meeting and in a report. The collection of that information and data began in accordance with the Chief’s Response Letter on October 18, 2023, and concluded on December 18, 2024. That data and information was presented at the Public Meeting, and in Sections 2 and 3 of this Report.

1.5 Meeting

On the evening of March 13, 2025, the Chief held the meeting requested by the Board at New Weston Hall, 413 Main Street, New Weston, Ohio. Pursuant to ORC 1521.03(E), ODNR presented the available technical information relevant to the conflict and to the groundwater resource and collected additional information offered on the record of the meeting, which is found in Section 4 of this Report.

1.6 Report

The Chief of ODNR-DWR now issues this Report with Recommendations about the use of the groundwater resource based upon the available technical information presented at the Meeting and the record of the Meeting.

The issuance of the Report concludes the statutory process in ORC 1521.03(E) to assist in the resolution of groundwater conflicts. The Chief has no jurisdiction to determine or declare property rights, including the constitutionally protected property right to groundwater. The declaration

of property rights is in the exclusive jurisdiction of the courts. Should the groundwater users be unable to resolve their conflict and choose to have their respective rights declared by a court, the technical information presented at the meeting, the Report, and any recommendations made in the Report, are presumed to be *prima facie* authentic and admissible as evidence in any court pursuant to Evidence Rule 902.

2. Background Information

2.1 Location and Users

The area studied for this Report (the “Study Area”) is located near the intersection of State Route 705 and State Route 118 in north-central Darke County, Allen and Wabash Townships, and southern Mercer County, Gibson and Granville Townships, Ohio. The Study Area is approximately 35.5 square miles in size, centered on the Village of New Weston. Its extent includes the locations of all Complainants and Complainees, the Village of New Weston, and the nearby Village of Burkettsville (fig. 1).

All three Complainees were required to register their water withdrawal facilities and report their annual withdrawals to the Chief under ORC 1521.16. A table summarizing the Complainee facilities within the Study Area is included in table 1. Two of the Complainees (Gelhaus Ag, LLC and Eldora Speedway, Inc.) registered as water withdrawal facilities within the timeframe that the study was being conducted. One Complainee (CLR Eggs, LLC) had registered the year prior to the study.

In Ohio, reporting for water withdrawal facilities is conducted on a yearly basis such that water withdrawn during 2025 will not be reported until 2026. Annual withdrawal records are available for Gelhaus Ag, LLC for 2023 and 2024. Annual withdrawal records were available for CLR Eggs, LLC for 2022, 2023, and 2024. Tables of the withdrawals for Gelhaus Ag, LLC and CLR Eggs, LLC are included in Appendix D. Withdrawals for Gelhaus Ag, LLC in 2023 were 3.89 million gallons (MG) and 3.21 MG in 2024. Withdrawals for CLR Eggs, LLC were reported in 2022, 2023, and 2024 and were 27.69, 34.80, and 57.72 MG, respectively. Withdrawals for CLR Eggs, LLC are only reported for the four of their five wells which were installed prior to 2024. During 2024, six additional wells were drilled by CLR Eggs, LLC; however, withdrawals for these wells are not reported within the timeframe of this study. As of March 2025, withdrawals for Eldora Speedway, Inc. were not reported in 2024.

2.2 Physiography and Climate

The Study Area is located within the Central Ohio Clayey Till Plain, a physiographic region characterized by a surface of clayey till with well-defined moraines and intervening flat-lying ground moraine and intermorainal lake basins (Brockman, 1998). There are few large streams and limited sand-and-gravel outwash throughout this physiographic region.

Climate normals were determined using the U.S. Climate Normals Product Suite, which is generated from the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI) climate datasets (Arguez and others, 2010). This dataset uses data from 1981 to 2010 to determine 30-year averages of meteorological parameters. The Greenville Water Plant in Greenville, Ohio, was the nearest climate station (Station 333375) which included both precipitation and temperature data. This station is located approximately 19 miles south of the Study Area. The annual precipitation normal average at this station from 1981 to 2010 was 38.9 inches/year and the average normal temperature from 1981 to 2010 was 50.3 degrees Fahrenheit. According to the National Water Prediction Service from NOAA (2024), the New Weston area received approximately 36 inches of precipitation during the 2024 water year (October 2024–September 2024). These values are similar to the reported precipitation values from previous ODNR publications which noted that the New Weston area had between 35–36 inches of precipitation per year from 1931 to 1980 (Harstine, 1991).

2.3 Surface Water

Surface water features within the Study Area fall within the Ohio River Watershed (Sherman, 1925). There are several sub-drainage basins present throughout the Study Area including the Stoney Creek-Wabash River Watershed, the Headwaters Wabash River Watershed, the Mile Creek Watershed, the Swamp Creek Watershed, the North Fork Stillwater River Watershed, and the Gray Branch-Mississinewa River Watershed (fig. 2). The largest surface water feature in the Study Area is the Wabash River. The Wabash River is approximately 41 miles long in Ohio, with a gradient of 5.3 feet/mile (OEPA, 2001). The USGS maintains a stream gage located approximately 13 miles north of the Study Area, stream gage 03322480 (USGS, 2016). While stage elevations were not available for the stream, historical discharge information was available. Six historical low-flow events were recorded from 1972 to 1974; these events ranged from 3.18 cubic feet per second (ft³/sec) to 6.4 ft³/sec.

2.4 Glacial Geology

The Study Area underwent three stages of glaciation since the Pleistocene Epoch (2.58 million–11.7 thousand years ago). Each stage of glaciation saw the advance and retreat of ice, shaping geomorphological features within these areas. During the Pre-Illinoian Glaciation (>300,000 years ago), tributaries of the Teays River—a large preglacial buried valley system present throughout western Ohio—were blocked, leading to the formation of new drainage patterns called the Deep Stage Drainage (Stout and others, 1943; Spahr, 1991). This drainage pattern had limited effects on the area, but tributaries of this system extend into the northeastern portion of the Study Area and are responsible for buried valley deposits found there. During the Illinoian Glaciation (300,000–130,000 years ago), glaciers covered the Study Area again and eroded bedrock and dammed preexisting drainage patterns (Leow, 1988). Subsequent glaciation during the Wisconsinan (35,000–14,000 years ago) reworked the Illinoian glacial deposits and left behind the current deposits and geomorphology present in the Study Area.

Surficial glacial deposits within the Study Area consist of thick deposits of Wisconsinan-aged unconsolidated glacial sediments. These deposits consist of clay tills and lake-planed moraine clays. The tills are primarily unsorted and unstratified and they consist of a heterogeneous mixture of sand, silt, clay, and boulders (Spahr, 1991). Several geomorphological features formed from the sediments deposited by the Wisconsinan glaciers. These features include end moraines and ground moraines, which are found within the southwestern portion of the Study Area, and lake-planed moraines, found on the northeast side of the Study Area (fig. 3; Pavey and others, 1999). There are also some modern features such as alluvium silt and sand veneers, which cover the bottoms of current river channels and alluvial terraces.

Drift thickness is defined as the thickness and distribution of glacially derived sediments overlying the buried bedrock surface (ODNR, 2004). Glacial drift thickness within the Study Area is variable (fig. 4). Drift thickness ranges from 0–30 to 226–300 feet. Drift is thickest on the northeast side of the project area and thinnest north of the Village of Burkettsville and under streams where there is a thin veneer of alluvium. Drift within the area surrounding the Village of New Weston can range from 31 to 100 feet thick, with the average drift thickness being approximately 60 feet thick.

2.5 Bedrock Geology

Structural geology in west-central Ohio consists of flat-lying, gently dipping carbonate bedrock (Slucher and others, 2006). This flat-lying bedrock area is within the Indiana-Ohio Platform, which is formed at the crest of two structurally positive features known as the Findlay Arch and the Cincinnati Arch (Coogan, 1996). The uppermost bedrock units within the Study Area consist of Silurian-age Salina Undifferentiated limestones and Silurian-age Lockport and Sub-Lockport Undifferentiated dolomites (fig. 5). The Salina Undifferentiated limestone is characterized by microcrystalline to finely crystalline dolomite interbedded with shale, anhydrite, and gypsum (Schumacher and others, 2013). The Salina Undifferentiated thickness can range from zero to up

to 700 feet thick. The Lockport and Sub-Lockport dolomites are characterized by white to gray, porous dolomite which occurs in thick to massive beds with some of the Sub-Lockport beds being irregular. The Lockport Dolomite and Sub-Lockport Undifferentiated have thicknesses which can range from 30–450 feet thick and 0–200 feet, respectively.

2.6 Hydrogeologic Setting

Hydrogeologic settings characterize a region's vadose zone, aquifer, and depositional environment (Nelson and Valachovics, 2022). The hydrogeologic settings in the Study Area are: Till over Limestone, Buried Valley, Alluvium over Sedimentary Rock, and Morainal Lake Deposits (fig. 6). Descriptions of these settings are included in table 2. The Till over Limestone hydrogeologic setting makes up almost three-quarters of the Study Area. The Alluvium over Sedimentary Rock hydrogeologic setting is present along modern stream channels; this setting represents areas where modern alluvial veneer overlies bedrock within the streambed. In the northeastern corner of the Study Area, Morainal Lake Deposits make up the largest hydrogeologic setting. These formed at the margins of glaciers where meltwater streams were dammed and ponded, forming shallow lakes between end moraines. These settings often include fine-grained lacustrine deposits which are more well sorted and often finer than the Till over Limestone hydrogeologic setting. In the upper northeastern corner, there is a small section comprised of Buried Valley deposits. These are often filled with sand, gravels, and tills, and are often thicker than the deposits that occur in the Till over Limestone or Morainal Lake Deposits hydrogeologic settings.

2.7 Recharge

Recharge in the Study Area was determined using the Net Recharge parameter from the *Groundwater Vulnerability Index Map of Ohio* (Nelson and others, 2022). Net Recharge is the total volume of water per unit area that effectively infiltrates the aquifer from the land surface. Net recharge ranges are a function of an area's topography, soil media, vadose zone media, vadose rating, and the infiltration capacity of the aquifer itself (Nelson and Valachovics, 2022). Recharge is typically higher in areas where topography is flatter, the vadose zone media is more permeable, soil is sandier, depth to water is shallower, and conductivity of the aquifer media is higher. Groundwater recharge near New Weston ranges from 2–4 inches per year to 4–7 inches per year (fig. 7). Additional recharge may be induced by the Wabash River, which likely acts as a recharge zone and partial hydrogeologic boundary. These effects would dampen groundwater declines in areas surrounding the river.

2.8 Aquifer Characteristics

Aquifers in Darke County have been mapped by the ODNR since 1993. Previous publications note the principal aquifer in the Study Area as limestone bedrock (Raab, 1993) and reported expected yields exceeding 100 gallons per minute. Most recently Potucek and others (2025) mapped the primary aquifer in the Study Area, which was defined as a more-utilized, higher-yielding aquifer unless there are considerations that make it unsuitable. Similar to previous publications, the primary aquifer mapped within the majority of the Study Area is Silurian-age limestones and dolomites (fig. 8). In the northeastern portion of the Study Area, a buried valley is present as the primary aquifer. The buried valley is described as an unconsolidated aquifer that was once a bedrock valley, then was filled in with glacial sediments (e.g., sands, gravels, clays).

Potucek and others (2025) also mapped secondary aquifer units which were defined as the lower-yielding or alternate aquifers that are suitable for some uses. Secondary aquifers are limited throughout the Study Area. In the southwestern portion of the Study Area, glacial complex aquifers can be utilized. These glacial deposits overlie the limestone within the Study Area and are clay-rich with discontinuous, water-bearing sand-and-gravel seams. North of the project area beneath the buried valley, the Silurian-age dolomite is available as a secondary aquifer (fig. 9).

The ODNR has records of 446 water wells within the Study Area (ODNR, n.d.). Of the 446 water

wells, 432 are completed within the carbonate bedrock. A summary of the carbonate bedrock wells is included below:

- Well depths range from 51 to 345 feet below land surface (ft bls) with an average well depth of 172 feet.
- Well completion test rates vary from 5 to 420 gallons per minute (gpm) with an average of 39 gpm.
- Static water levels in these wells range from 0.5 to 80 ft bls with an average of 37 ft bls.
- Depth to bedrock ranges from 37 to 224 ft bls with an average of 85 ft bls.
- Sustainable yields are reported for 192 of the carbonate bedrock wells. Sustainable yields range from 10 to 250 gpm with an average of 35 gpm.

Fourteen water wells within the Study Area are completed in sand-and-gravel aquifers. A summary of the sand-and-gravel wells is included below:

- Well depths range from 69 to 175 ft bls with an average well depth of 116 feet.
- Well completion test rates vary from 20 to 110 gpm with an average of 48 gpm.
- Static water levels in these wells range from 13 to 48 ft bls with an average of 30 ft bls.
- Sustainable yields are reported for five of the sand-and-gravel aquifer wells. Sustainable yields range from 20 to 30 gpm with an average of 23 gpm.

To help depict the aquifers in the Study Area, two cross sections were created for this study (fig. 10). The first cross section (A–A') is oriented north to south and includes 11 water wells (fig. 11). Well depths in this cross section range from 69 to 322 feet. The second cross section (B–B') is oriented west to east and includes 9 water wells (fig. 12). Well depths in this cross section range from 136 to 342 feet. Wells within the cross sections are all drilled through the overlying tills and into the Silurian-age bedrock. The overlying till clay acts as an impermeable layer, increasing hydrostatic pressure within the limestone aquifer. This increase in pressure raises the static water level of the aquifer above its top and into the overlying impermeable unit, indicating confined aquifer conditions.

2.9 Groundwater Flow Direction

A potentiometric surface was mapped for the Study Area using water well logs and field measurements that were collected from wells near the Village of New Weston (fig. 13). A table of water level records for manually measured wells is provided in Appendix E. Potentiometric surface contours of the Silurian-age carbonate bedrocks ranged from 990 ft above mean sea level (amsl) on the southwest side of the Study Area to 920 ft amsl on the north side of the Study Area. The generated potentiometric surface map generally agreed with previously published ODNR bedrock potentiometric surfaces (ODNR Division of Geological Survey, n.d.). In the Study Area, the general groundwater flow direction goes from the southwest to the northeast. Around the Village of New Weston, groundwater elevations range from approximately 970 ft amsl to 960 ft amsl.

2.10 Hydraulic Conductivity

Hydraulic conductivity is a property of an aquifer which is used to describe the ease with which fluids flow through a porous medium (Schwartz and Zhang, 2008). Hydraulic conductivity is dependent on the intrinsic permeability of the material, the degree of saturation, and the density and viscosity of the fluid which is flowing through the material. In cases where a material has a high intrinsic permeability, the material often has larger pore spaces, more interconnected pores, and less tortuous pathways through the material—all of which can lead to higher hydraulic conductivities. In the case of limestones and dolomites, which make up the primary aquifers within the Study Area, the secondary porosity (which refers to pore space that develops after the rock or sediment is formed) can have large implications on the permeability of a material and the hydraulic conductivity of the material (Woessner and Poeter, 2020). In limestones and dolomites,

dissolution features and fractures are a common occurrence that create pathways through the material. These pathways are often large and can transmit water to a greater extent than the surrounding material, therefore increasing the hydraulic conductivity of the material. In limestone areas where there are more fractures and more dissolution features, the hydraulic conductivity will be greater. In areas where the hydraulic conductivity is greater, the yield is often greater as well. In the Study Area, the hydraulic conductivities of the Silurian dolomites range from 25–50 ft per day to 100–150 ft per day (Lanier and others, 2025; fig. 14). The primary aquifer in the majority of the Study Area has a hydraulic conductivity of 50–100 ft per day. This indicates that the underlying limestones and dolomites are relatively uniform.

2.11 Aquifer Yield

Aquifer yield quantifies the volume of groundwater that is dischargeable from an aquifer per unit time via either pumping or natural flow (Potucek and others, 2025). As previously discussed, the primary aquifer within the Study Area is Salina Undifferentiated, which consists of Silurian-aged limestones and dolomites. Yields within this unit depend on dissolution features along joints and fractures; the uppermost Silurian units are largely productive and can provide yields of 100–250 gpm (fig. 15). Buried valley deposits in the northeastern portion of the Study Area can provide yields of 25–50 gpm; however, these are limited to their extent. Well yields and test rates within the Study Area often vary significantly from the reported aquifer yields. This disparity may be a result of the construction of domestic and smaller agricultural wells which are often limited in their ability to produce higher yields. These wells are usually smaller diameter and lack higher capacity pumps. In cases of large wells, such as municipal or large-scale industrial wells, the diameters of these wells are often larger, the wells penetrate more of the aquifer, and the pump sizes are larger, allowing for those wells to more readily utilize the yield of the aquifer.

Within the carbonate bedrock of Middle to Late Silurian age, there is a highly permeable zone which is approximately 1–30 ft thick. This zone is known as the Newburg zone and it occurs in granular vuggy dolomite (Strobel and Bugliosi, 1991). The Newburg zone is found between the Lockport Dolomite and the Salina Group, but in some areas of the state it is absent. This zone is described as having much higher yields than overlying limestone; in west-central Ohio, it is described as having the potential to supply 0.5 to 1 million gallons per day (Norris, 1956). Yields within the New Weston area do not seem to indicate that wells are screened within this zone, which suggests the feature is likely present at depth within the area.

3. Data Collection

3.1 Initial Visits and Background Monitoring

On October 18, 2023, ODNR-DGS initiated data and information collection in the Village of New Weston by meeting with Complainants and other Village residents to explain the field procedures and obtain permission to access their private wells for data collection. During subsequent visits, 84 manual measurements were recorded in 18 wells to assess groundwater-level fluctuations (Appendix E).

ODNR-DGS also met with Complainees William Gelhaus of Gelhaus Ag, LLC; Charlie Rose of CLR Eggs, LLC; and members of the grounds staff at the Eldora Speedway, Inc. racetrack. Mr. Gelhaus granted permission for two groundwater-level measurements to be recorded in his domestic well, but did not agree to directly investigate his irrigation well via the execution of a pumping test. During an ODNR-DGS visit in October 2023, Mr. Gelhaus reported that he most recently irrigated in September and that his irrigator operates with a flow rate of approximately 180 gpm. The grounds staff at Eldora Speedway, Inc. confirmed that the three wells owned by the facility were largely pumped during races for public restroom use, lawn irrigation, and spraying the racetrack to decrease dust. These uses are corroborated by the well uses defined on their respective ODNR well logs. Mr. Rose of CLR Eggs, LLC explained that their agricultural wells at the CLR Eggs, LLC

facility have consistent withdrawal patterns monitored by flow meters and are actively reporting their withdrawals to ODNR-DWS (Appendix D). Mr. Rose also reported that they were planning to drill more wells starting in the spring of 2024.

Other potential agricultural and commercial groundwater users were also assessed. ODNR-DGS staff members were granted permission to take a manual measurement at a Rose Brothers' hog farm well. Charlie Rose of FRM Investments disclosed that water withdrawals at his hog farm do not exceed the reporting threshold of 70 gpm. Additionally, pumping at the hog farm did not exceed the maximum recommended rate proposed by Raab and Jackson (1997). Nearby commercial users, Buschur Dairy and Klingshirn Trucking allowed ODNR-DGS to record their groundwater levels over the course of the data collection.

ODNR-DGS determined that year-long continuous groundwater monitoring in the Study Area would help establish normal groundwater levels and reveal instances of impactful drawdown. Potential periods of impact by the Complainee facilities were anticipated to occur during, shortly before, or shortly after Eldora Speedway, Inc. events; throughout the growing season when Gelhaus Ag, LLC might be expected to irrigate; and during the 2024 well installations at CLR Eggs, LLC.

3.2 Continuous groundwater-level monitoring

Continuous groundwater-level monitoring began on December 14, 2023, when In-Situ Level TROLL[®] 500 pressure transducers were deployed at three domestic wells (NW 1, NW 2, NW 3). Wells NW 1 and NW 2 are located within the Village limits, and NW 3 is located approximately 0.6 miles south of the Village (fig. 16). On June 13, 2024, two additional pressure transducers were installed at an agricultural well, NW 4, and a commercial well, NW 5 (fig. 16). The project well ID, ODNR well log numbers, and well uses of the five continuously monitored wells are shown in table 3.

The locations of manual measurements and continuous groundwater-level data collection points provided coverage within and around the Village of New Weston. The spatial distribution of collected data was designed to best assess the location of dewatering issues reported by the Complainants.

The pressure transducers were installed and configured to record hourly groundwater levels. Manual measurements were performed during monthly field visits to ensure the accuracy of the monitoring devices. If manual measurements differed from the device-reported measurement by more than 0.03 ft, the transducer reference level was reset. Field data collection ceased on December 18, 2024. Full records of the measured field data are shown in Appendix E.

4. Data Analysis

4.1 Well Hydrographs

The continuously recorded datasets were plotted as groundwater hydrographs that show the annual groundwater-level fluctuations of the five wells (fig. 17). Wells NW 1, NW 2, and NW 3 were monitored from December 14, 2023, to December 18, 2024. Data collection on NW 4 initially began in June of 2024; however, the transducer cable installed was determined to be too short to accurately collect water levels at the well. A new cable was installed, and the transducer was redeployed in August and data collection commenced on NW 4 from August 6, 2024 to December 18, 2024. Well NW 5 was monitored from June 13, 2024, to December 18, 2024. Groundwater levels are reported as depth to water (DTW) measured from the land surface (fig. 17). During monitoring, owners utilized their wells as normal. Instances when owners pumped their wells occur as short-term well losses followed by quick recoveries (fig. 17). When lower-capacity wells were utilized (NW 1, NW 2, NW 3, NW 5), DTW changes were generally ≤ 5 ft, while in the relatively higher-capacity well (NW 4), DTW fluctuations were ≤ 20 ft.

4.2 Pumping Signatures

Highlighted from June through September in figure 18, external pumping signatures were

regularly observed in each well in the form of steady, multiday declines in the groundwater levels followed by sharp recoveries. After the external pumping signatures ceased in early September, all groundwater levels gradually rose and stabilized in October. However, domestic wells (NW 1, NW 2, NW 3) did not return to the levels observed prior to June (fig. 18).

Static water levels (SWL) in table 4 were calculated by assessing DTW measurements outside of the external pumping signatures. The median DTW measurements prior to June for wells NW 1–3 determined each SWL. Since records for NW 4 and NW 5 do not exist prior to June, DTW values were examined after October 1. The median DTW value during this timeframe defined the SWL for NW 5. Commercial use of NW 4 was constant, therefore the minimum DTW value was used to establish its SWL.

From August 31 to September 5, 2024, the last external pumping signature was observed. This was the only external pumping signature to occur when all five monitoring wells were deployed, therefore this timeframe was used to analyze drawdowns. In wells NW 1–3 and NW 5, maximum drawdown was determined by calculating the difference between each SWL and the maximum groundwater level decline observed during the last external pumping signature; for NW 4, the minimum groundwater level decline during the signature was used to calculate its drawdown. The maximum drawdown experienced in each well is reported in table 4. As shown in table 4, external pumping signatures largely reduced groundwater levels in wells NW 1, NW 2, and NW 3, with NW 2 displaying the greatest impact. Wells farther east (NW 4) and north (NW 5) of the village appear to be the least affected by the external pumping. Variations in the observed drawdowns are likely caused by each well's proximity to the external pumping source, where wells proximal to pumping exhibit greater drawdowns and wells distal to pumping are expected to exhibit relatively dampened responses.

The available head was calculated in each of the five wells to compare the amount of groundwater above each pump during normal conditions and during the last external pumping event. The amount of available head during normal conditions was calculated as the difference between static water level and the pump depth, minus 5 feet. To calculate the percentage of available head remaining when external pumping occurred, the difference between the available head and the maximum drawdown was used (table 5). The wells within Village limits, NW 1 and NW 2, have the lowest percentage of available head remaining. Wells farther from the Village limits had a greater percentage of available head since well pumps are set deeper, and the observed drawdowns were less. This data reveals that wells within the Village limits are at a greater risk for having to lower their pump because of the external pumping. If the external pumping increases in duration or rate, all wells will experience more drawdown, resulting in a greater loss of percent of available head remaining.

4.3 Potential Sources of Impact

To evaluate the potential sources of impact and therefore determine the cause of the conflict, documented dates when pumping was likely occurring at the Complainee facilities were compared to the hydrographs. The following sections assess the likelihood that each Complainee facility is responsible for the external pumping signatures observed in the hydrograph data collected.

4.3.1 Eldora Speedway, Inc.

To assess if pumping at the Eldora Speedway, Inc. facility could be the cause of the external pumping signatures, races and public events were plotted against the hydrographs. The 2024 schedule for races and other public events at Eldora Speedway, Inc. were documented as a range of days (Appendix F), which appear as red highlights on the hydrographs (fig. 19). Dashed lines within each highlighted event mark the start of a single day (fig. 19). The exact rate or frequency of pumping at the Eldora Speedway, Inc. facility during these public events were unknown.

Five Eldora Speedway, Inc. events occurred prior to the first external pumping signature (late June) and two events occurred after the last signature (early-September). The hydrographs show

that all Eldora Speedway, Inc. events outside of the external pumping signature period had little to no influence on DTW values (fig. 19). Four Eldora Speedway, Inc. events occurred within the summer external pumping signature months. Eldora Speedway, Inc. events in July and August did not appear to contribute to groundwater declines since hydrographs show active recovery during this time (fig. 19). Two Eldora Speedway, Inc. events partially overlapped with an external pumping signature in September. The water levels declined several hours prior to the first Eldora Speedway, Inc. September event and ended in the middle of the later Eldora Speedway, Inc. event. This indicates that the early-September racing events did not cause the observed external pumping signature.

Groundwater levels for a more distal domestic well (NW 1) were compared with the closest well (NW 3) to the Speedway (fig. 20). If pumping at Eldora Speedway, Inc. had been the cause of the September external pumping signature, the closest well (NW 3) is expected to show a greater DTW decline. Since this response did not occur, it is unlikely that the external pumping signature was related to the overlapping Eldora Speedway, Inc. events in September (fig. 20).

Distance-drawdown graphs were created to assess the relationship between the maximum drawdown observed in each monitored well (table 4) relative to their distances from the Eldora Speedway, Inc. facility (fig. 21). Greater R-squared values indicate less variation of the data points to the regression line. Lower p-values indicate a greater statistical significance; in cases where the p-value is less than or equal to 0.05, the results are considered statistically significant. In other words, the p-value represents the likelihood that there is no true relationship between the distance and the drawdown. Given the R-squared value (0.3) and the p-value (0.34), there is a non-significant weak correlation between the drawdowns observed in the monitored wells and their respective distances from pumping at Eldora Speedway, Inc. pumping (fig. 21).

4.3.2 CLR Eggs, LLC

To assess if pumping at the CLR Eggs, LLC facility could be the cause of the external pumping signatures, the known days of well-completion testing at the facility were plotted against the hydrographs. Over the continuous monitoring period, CLR Eggs, LLC had six new wells drilled by Quinter Well Drilling (Appendix G). Well-completion test dates and the testing rates are shown in table 6.

To examine potential groundwater-level responses, each well-completion test date appears as yellow highlights on the hydrographs (fig. 22). Each well-completion test occurred for only 1.5 hours within a highlighted event, but because the exact time each test started is unknown, the whole day is highlighted. Since the duration of these well-completion tests were relatively short, they may not be indicative of the potential effects of sustained pumping. A single well-completion test partially overlapped with an external pumping signature on August 30, but the observed declines began on August 29, prior to well installation. Thus, pumping from the well-completion test was unlikely to be the main cause for this observed external pumping signature. Furthermore, well-completion tests in June, July, November, and December were conducted at a greater rate than the August 30 well-completion test, but the water level declines were less than those observed during the August 30 test (fig. 22). All other well-completion test dates overlapped with periods of active recovery (June and July) or coincided with stable static water levels (November and December).

Hydrographs for one well within the Village limits (NW 1) and the well closest to the CLR Eggs, LLC facility (NW 3) are shown in figure 23. Typically, levels for the proximal well (NW 3) were less responsive than the distal well (NW 1), which is inconsistent with the expected well responses given their distances from the CLR Eggs, LLC facility (fig. 23). This suggests that pumping at the CLR Eggs, LLC facility was unlikely to be the main cause of the external pumping signatures.

Maximum drawdown values in table 4 and distances from each monitored well to the CLR Eggs, LLC facility were used to construct figure 24. The calculated R-squared value and p-value are 0.47 and 0.2, respectively (fig. 24). Results from the distance-drawdown graph for CLR Eggs, LLC

indicate there is a low to moderate correlation between the drawdowns and the proximity of each well to the facility. The p-value indicates that this relationship is not statistically significant. Thus, it is unlikely that CLR Eggs, LLC was the main cause of the external pumping signatures.

4.3.3 Gelhaus Ag, LLC

To assess if pumping at the Gelhaus Ag, LLC facility could be the cause of the external pumping signatures, reported irrigation events were plotted against the hydrographs. ODNR-DGS did not receive a schedule of pumping from Gelhaus Ag, LLC, and the facility did not cooperate when asked if a pumping test could be performed. ODNR-DGS could not monitor the status of the facility's pumping during the entire irrigation season, much less year-round. Instead, periods of Gelhaus Ag, LLC pumping were garnered from second-hand reports. Village of New Weston residents independently documented instances when they observed irrigation at the Gelhaus Ag, LLC facility (Appendix H). ODNR had no influence on or participation in the collection of these records and the residents did not have access to the collected groundwater-level data prior to the publication of this Report. Any correlation of resident-reported pumping events to external pumping signatures in the hydrograph data is considered blind.

The dates of recorded irrigation are highlighted blue on the hydrographs (fig. 25). The external pumping signatures largely correspond with the reported dates of irrigation (fig. 25). However, highlighted irrigation events did not always overlap with the observed pumping signatures, potentially a result of the inability of residents to always observe the irrigator. Based on verbal communication with Mr. Gelhaus of Gelhaus Ag, LLC, and with a general understanding of the seasonality of crop irrigation needs, pumping at this facility mostly occurs during the summer months. The hydrograph data shows that there are clear pumping signatures from mid-June to early-September, which suggests a link to irrigation during the growing season. The observed pumping signatures are absent in all well data outside of these summer months. Since the reported dates of irrigation overwhelmingly correlate with pumping signatures, it is likely that irrigating at Gelhaus Ag, LLC contributed to the dewatering reported in and around the Village of New Weston. Furthermore, the wells closest to Gelhaus Ag, LLC exhibited the greatest declines, while wells farther away had a dampened response (fig. 25). This aligns with the expected groundwater responses in wells from an external pumping influence.

Maximum drawdowns in each well (table 4) compared to their distances from the Gelhaus Ag, LLC facility are shown in figure 26. The distance-drawdown graph indicates there is a moderate to strong relationship (R -squared = 0.78) between the drawdowns and the proximity of each well to the facility (fig. 26). The p-value (0.05) indicates that this relationship is statistically significant. Pumping at the Gelhaus Ag, LLC facility had the strongest and most significant correlation between distance and drawdowns compared to the analysis of the other Complainee facilities (figs. 21 and 24). Based on this analysis, irrigation at Gelhaus Ag, LLC likely caused the initial and continued drawdowns of domestic wells in and around the Village of New Weston.

4.4 Drought Effects

Drought data for Darke County from the National Integrated Drought Information System (NIDIS) are shown in figure 27. Drought data were compiled for the duration of the study (December 2023–December 2024). The drought index shows the percentage of the county area which experienced drought conditions. The drought index ranged from D0 (abnormally dry) to D1 (moderately dry) in this period (fig. 27). Several periods of drought occurred within Darke County from December 2023 to December 2024. From late-December 2023 to mid-January 2024, the entire county experienced D1 drought conditions. The hydrographs of wells NW 1–3 were constructed from data collected during this time (fig. 27). The hydrographs showed regular pumping of small domestic pumps, but no large deviations from the normal static water level conditions in these wells. From mid-March to early-June, Darke County did not experience drought conditions. The hydrographs do not show any noticeable major declines outside of

normal pumping during this time. From early-June to early-September, the county experienced D0 conditions and parts of the county experienced D1 conditions. Study hydrographs during this time show variable groundwater levels. Several periods of high groundwater decline (external pumping influence) occur during these drought conditions. It is unlikely that drought was the main cause of these groundwater fluctuations, as the fluctuations are much larger than conditions noted earlier in the year (mid-December 2023 to mid-March 2024) when Darke County experienced drought conditions. From early-September to mid-December 2024, Darke County again experienced D0 and D1 drought conditions. The hydrographs only show one major decline during this time which occurred in early-September. The drought was unlikely to be the cause of this decline as the groundwater levels rebound relatively quickly through mid-September to the end of September, despite Darke County being under D1 conditions during the same period. Overall, the drought does not appear to correspond to the external pumping signatures in Darke County, but it may have had an influence on the smaller, long-term decline which is noticeable from the difference in DTW from January to June, and then late-September to December 2024.

Data from the nearest ODNr groundwater-level observation well (MR-2) to the Study Area was available for 2024. MR-2 is located over 6 miles north of the northern boundary of the Study Area and it is completed within the same Silurian carbonate bedrock aquifer. Data from the observation well is far from the effects of any pumping attributable to facilities within the Study Area, and any pumping effects seen on the graph are likely a result of local pumping near the observation well. The depth to water within the observation well ranges from approximately 71 ft to 73 ft during 2024 (fig. 28). The scale of groundwater-level decline is much smaller than groundwater declines observed in the continuously monitored wells in New Weston, which in some cases displayed over 15 ft of drawdown. MR-2 can be used to characterize drought effects within the Silurian carbonate aquifer without the influence of the external pumping observed within the Study Area. As shown in figure 28, there is approximately 1.5–2 ft of drawdown that occurs in MR-2 from January 2024 to September 2024. This may still be subject to some local pumping; however, the magnitude of the decline is much less than in the continuously monitored wells. Even if the full influence of the drawdown was owing to drought, it is likely the groundwater-level declines would only account for a small portion of the total drawdowns observed in the continuously monitored wells.

4.5 Information on the Record of the Meeting

As required by ORC 1521.03(E), ODNr gathered additional information offered on the record of the Meeting about the use of the groundwater resource. That information is included in Appendix I.

5. Conclusions

The Complainants and Complainees all have wells completed within the same carbonate bedrock aquifer, at varying depths. The smaller-diameter, shallower wells within the Village of New Weston were the first wells to be dewatered. Hydrographs were constructed from data collected at continuously monitored wells in the Village. The maximum drawdown within the hydrographs was larger than the normal small-scale use, suggesting an external cause of drawdown. Hydrograph analysis compared to Complainee pumping showed the Gelhaus Ag, LLC facility irrigation times matched the external pumping signatures. Additionally, the distance-drawdown analysis showed that the well responses based on proximity to the Gelhaus Ag, LLC facility showed the greatest correlation and significance in comparison to the other Complainee facilities. This was further illustrated by the dampened signature of the drawdowns as distance increases from the Gelhaus Ag, LLC facility. The additional information offered on the record of the Meeting is consistent with these conclusions. Of the Complainee facilities, pumping from Gelhaus Ag, LLC's new irrigation well installed on June 8, 2023 (ODNR well log #3008273), likely caused the dewatering of the Complainants' wells, and continued irrigation could lead to further impacts if current pumping patterns persist.

A secondary analysis was completed using comparisons between the 2024 Darke County drought index, the continuously-monitored well hydrographs, and the nearest observation well to the Study Area. This analysis showed that the 2024 drought did impact the area, but its effects were much smaller than could account for the external pumping signatures observed in the monitored wells during the summer months. The drought likely impacted recovery of the water table over the course of the calendar year as the average static water levels have decreased, but this decline is less than 4 ft. Therefore, the observed external pumping signatures were found to be unattributable to the drought.

6. Recommendations

The drawdown and dewatering of Complainants' wells in the Village of New Weston were caused by the pumping rate and duration of Complainee Gelhaus Ag, LLC's irrigation well (ODNR well log #3008273). Drawdown in wells near the Gelhaus Ag, LLC irrigation well will increase with prolonged and/or intensive pumping. Accordingly, the Chief makes the following recommendations about the use of the groundwater resource based upon the available technical data and information, and the record of the meeting, to assist in the resolution of this conflict between groundwater users.

Resolution of this groundwater conflict may be achieved by:

- (1) Reducing the pumping rate of Gelhaus Ag, LLC's irrigation well;
- (2) Decreasing the duration of Gelhaus Ag, LLC's irrigation well pumping to allow for additional recovery of groundwater levels between pumping events;
- (3) Pumping of Gelhaus Ag, LLC's irrigation well at times when there is less water demand by groundwater users in the Village, such as late evening or overnight, to reduce its impact on daytime water use within the Village; and
- (4) Deepening or replacing dewatered shallow wells with deeper wells to reach lower intervals of the aquifer.

7. References

- Arguez, A., Durre, I., Applequist, S., Squires, M., Vose, R., Yin, X., and Bilotta R., 2010, NOAA's U.S. Climate Normals (1981-2010): NOAA National Centers for Environmental Information, accessed on April 17, 2025, at DOI:10.7289/V5PN93JP.
- Brockman, S.C., 1998, Physiographic Regions of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey, page-size map with text, 2 p., scale 1:2,100,000.
- Coogan, A.H., 1996, Ohio's Surface Rocks and Sediments: Ohio Department of Natural Resources, Division of Geological Survey, 21 p.
- Harstine, L.J., 1991, Hydrologic Atlas for Ohio: Ohio Department of Natural Resources, Division of Water, Water Inventory Report, no. 28, 13 p.
- Lanier, A.A., Potucek, M.J., Scaccia, M.G., and Nelson, C.B., 2025, Hydraulic conductivity map of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Map GW-4, version 1.0, scale 1:500,000.
- Leow, J.A., 1988, Drift thickness of Darke County, Ohio: Columbus, Ohio Department of Natural Resources, Division of Geologic Survey Open-File Map 267, scale 1:62,500.
- National Integrated Drought Information System (NIDIS), 2011, U.S. National Integrated Drought Information System: Drought.gov, U.S. Drought Portal, Web Archive at <www.loc.gov/item/lcwaN0014288/>.
- National Oceanic and Atmospheric Administration, 2024, National Water Prediction Service: version 2.1, accessed on March 3, 2025, at <<https://water.noaa.gov/>>

- Nelson, C.B., Valachovics, T.R., Angle, M.P., Hardin, K.M., Nash, T.A., Spahr, P.N., Raab, J.M., and Coe, C.J., 2022, Groundwater vulnerability index map of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Map GW-2, version 1.0, scale 1:500,000.
- Nelson, C.B., and Valachovics, T.R., 2022, Guide to the groundwater vulnerability map of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Open-File Report 2022-1, 25 p.
- Nelson, C.B., Valachovics, T.R., Angle, M.P., Hardin, K.M., Nash, T.A., Spahr, P.N., Raab, J.M., and Coe, C.J., 2022, Hydrogeologic settings of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Map GW-1, version 1.0, scale 1:500,000.
- Norris, S.E., 1956, Sand at the top of the Niagara group as a source of water in west-central Ohio: Ohio Journal of Science, vol. 56, p. 93-100.
- ODNR Division of Geological Survey, [n.d.], Ohio geology interactive map -Aquifers, Yield, and Hydraulic Conductivity (Primary Aquifers)-: Columbus, Ohio Department of Natural Resources, Division of Geological Survey, web-based mapping application, last accessed April 21, 2025, at <<https://gis.ohiodnr.gov/website/dgs/geologyviewer/#>>.
- ODNR Division of Geological Survey, [n.d.], Ohio geology interactive map -Aquifers, Yield, and Hydraulic Conductivity (Secondary Aquifers)-: Columbus, Ohio Department of Natural Resources, Division of Geological Survey web-based mapping application, last accessed April 21, 2025, at <<https://gis.ohiodnr.gov/website/dgs/geologyviewer/#>>.
- ODNR Division of Geological Survey, [n.d.], Ohio geology interactive map -Potentiometric Surface (consolidated)-: Columbus, Ohio Department of Natural Resources, Division of Geological Survey web-based mapping application, last accessed April 21, 2025, at <<https://gis.ohiodnr.gov/website/dgs/geologyviewer/#>>.
- ODNR, [n.d.], Ohio water well database: Columbus, Ohio Department of Natural Resources, Division of Geological Survey web-based mapping application, last accessed March 18, 2025, at <<https://waterwells.ohiodnr.gov/>>.
- ODNR, 2004, Shaded drift-thickness map of Ohio: Columbus, Ohio Department of Natural Resources Division of Geological Survey Map SG-3, generalized page-size version with text, scale 1:2,000,000. (Revised 2017.)
- OEPA, 2001, Wabash River Infographic: last accessed April 16, 2025, at <https://dam.assets.ohio.gov/image/upload/epa.ohio.gov/Portals/35/documents/wabash2001_infographic.pdf>.
- Pavey R.R., Goldthwait, R.P., Brockman S.C., Hull, D.N., Swinford, E.M., and Van Horn, R.G., 1999, Quaternary Geology of Ohio: Columbus, Ohio Department of Natural resources, Division of Geological Survey Map No. 2, scale 1:500,000.
- Potucek, M.J., Lanier, A.A., Scaccia, M.G., and Nelson, C.B., 2025, Aquifer yield map of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Map GW-3, version 1.0, scale 1:500,000.
- Powers, D.M., and Swinford, E.M., 2004, Shaded Drift-Thickness Map of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Map SG-3, scale 1:500,000.
- Raab, J.M., 1993, Ground Water Resources of Darke County: Columbus, Ohio Department of Natural Resources, Division of Water Groundwater Resources Map 78.
- Raab, J.M., and Jackson T., 1997, Ground water investigation in the vicinity of New Weston, Allen Township, Darke County: Columbus, Ohio Department of Natural Resources, Division of Water Technical Report of Investigation 97-1, 21 p.
- Schumacher, G.A., Mott, B.E., and Angle, M.P., 2013, Ohio's geology in core and outcrop—A field guide for citizens and environmental and geotechnical investigators: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Information Circular 63, 191 p.
- Schwartz, F.W., and Zhang, H., 2003, Fundamentals of Groundwater: John Wiley & Sons, New York, 583 p.

- Sherman, C.E., 1925, Principal Streams and their Drainage Areas: Columbus, Ohio Department of Natural Resources, Division of Water Map WM-1, scale 1 inch = 10 miles. (Reprinted 1999.)
- Slucher, E.R., Swinford, E.M., Larsen, G.E., Schumacher, G.A., Shrake, D.L., Rice, C.L., Caudill, M.R., and Rea, R.G., 2006, Bedrock geologic map of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Map BG-1, version 6.0, scale 1:500,000.
- Spahr, P., 1991, Ground Water Pollution Potential of Darke County, Ohio; Columbus, Ohio Department of Natural Resources, Division of Geological Survey Ground Water Pollution Potential Report, no. 25, 57 p.
- State of Ohio, 1990, Section 1521.17 Determination of reasonableness of use of water, *in* Chapter 1521 Division of Water Resources: Ohio Revised Code, Title 15 Conservation of Natural Resources, last accessed April 21, 2025, at <<https://codes.ohio.gov/ohio-revised-code/section-1521.17>>.
- State of Ohio, 2019, Section 1521.03 Chief of division—powers and duties, *in* Chapter 1521 Division of Water Resources: Ohio Revised Code, Title 15 Conservation of Natural Resources, last accessed April 21, 2025, at <<https://codes.ohio.gov/ohio-revised-code/section-1521.03>>.
- State of Ohio, 2019, Section 1521.16 Registering facilities capable of withdrawing more than 100,000 gallons a day—rules for ground water stress areas, *in* Chapter 1521 Division of Water Resources: Ohio Revised Code, Title 15 Conservation of Natural Resources, last accessed April 21, 2025, at <<https://codes.ohio.gov/ohio-revised-code/section-1521.16>>.
- Stout, Wilber, Ver Steeg, Karl, and Lamb, G.F., 1943, Geology of water in Ohio: Columbus, Geological Survey of Ohio, Fourth Series, Bulletin 44, 694 p.
- Strobel, M.L., and Bugliosi, E.F., 1991, Areal Extent, Hydrogeologic Characteristics, and Possible Origins of the Carbonate Rock Newburg Zone (Middle-Upper Silurian) in Ohio: Ohio Journal of Science, vol. 91, p. 209–215.
- U.S. Geological Survey, 2019, National Hydrography Dataset (ver. USGS National Hydrography Dataset Best Resolution (NHD) for Hydrologic Unit (HU) 4 - 2001 (published 20191002)), accessed April 21, 2025 at <<https://www.usgs.gov/national-hydrography/access-national-hydrography-products>>.
- U.S. Geological Survey, 2016, National Water Information System dataset: USGS Water Data for the Nation, last accessed April 16, 2025, at <<http://waterdata.usgs.gov/nwis/>>.
- Woessner, W.W., and Poeter, E.P., 2020, Hydrogeologic Properties of Earth Materials and Principles of Groundwater Flow: The Groundwater Project, 205 p., last accessed April 16, 2025, at <<https://doi.org/10.21083/978-1-7770541-2-0>>.

FIGURES

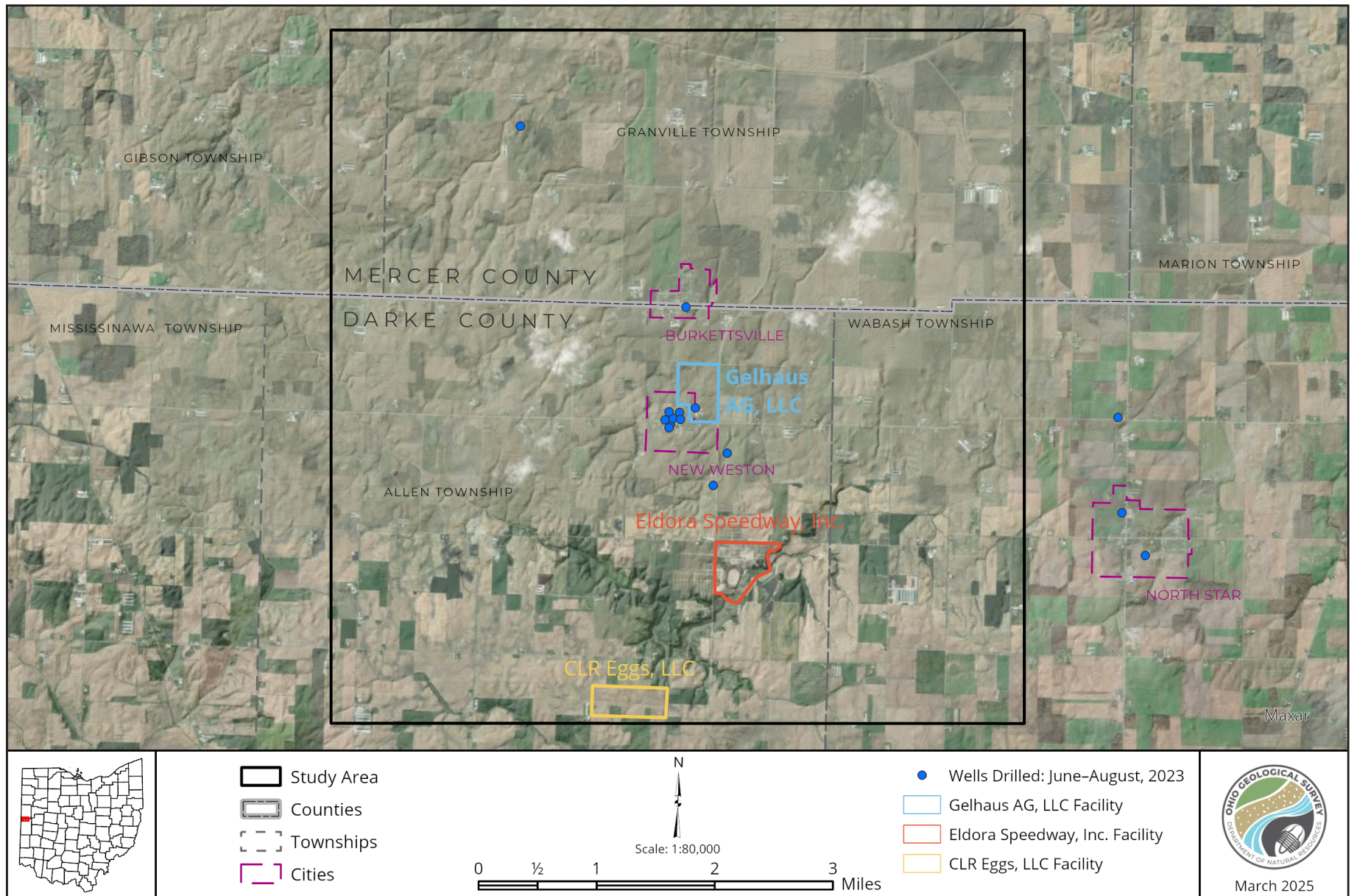


Figure 1. Location of the study area.

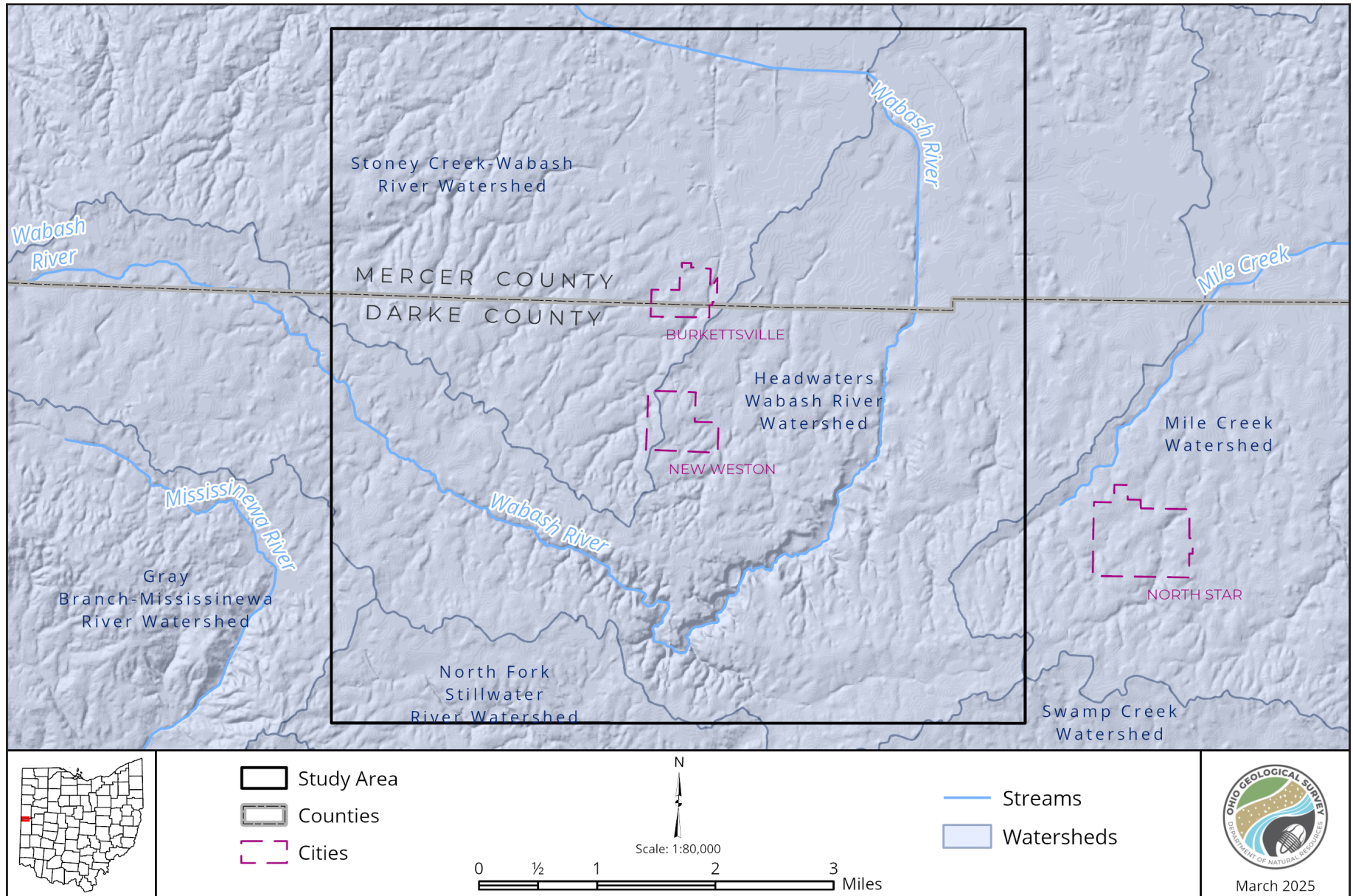


Figure 2. Drainage basins near the study area (U.S. Geological Survey and National Geospatial Program, 2019).

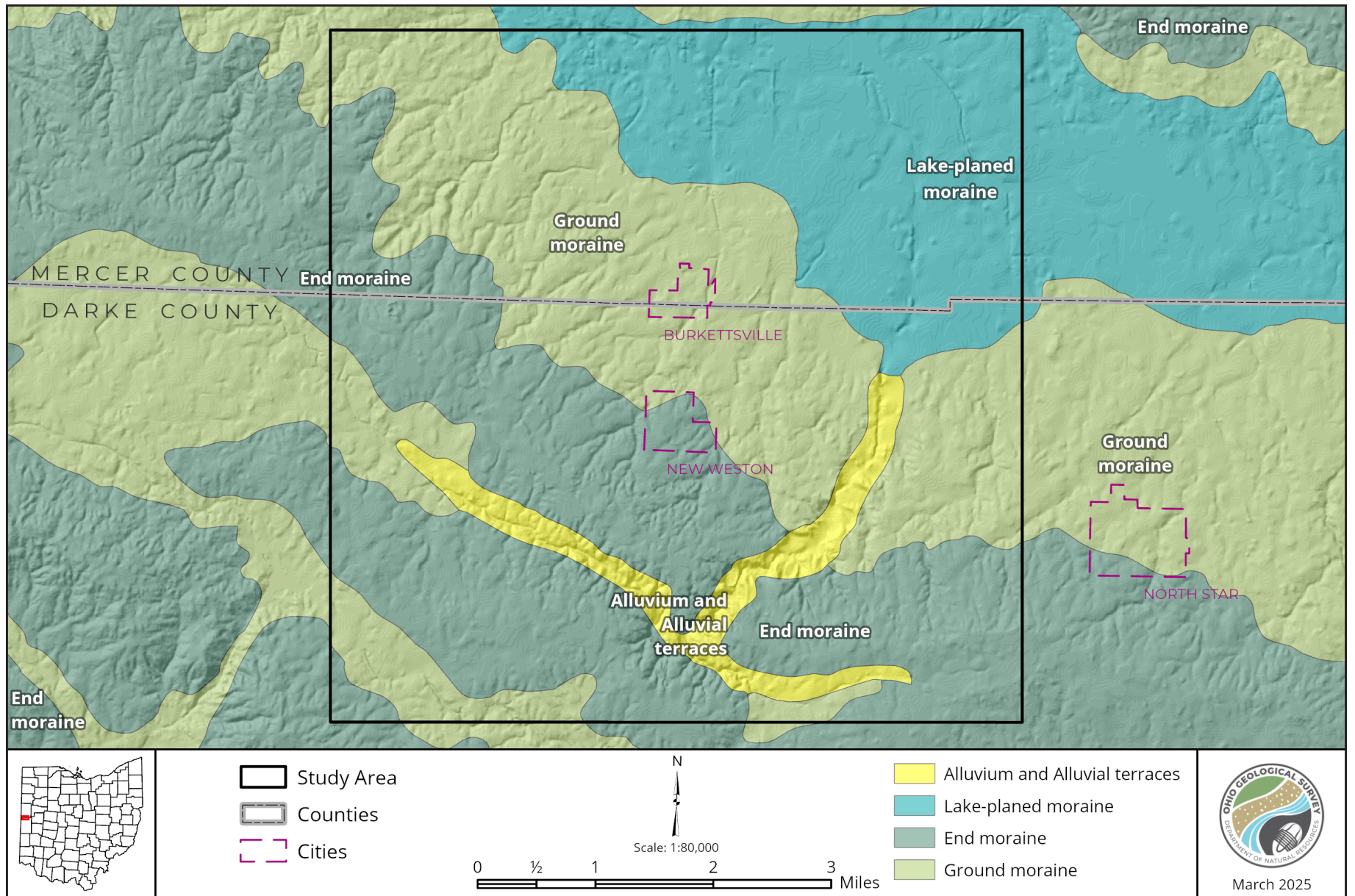


Figure 3. Glacial geology of the study area (Pavey and others, 1999).

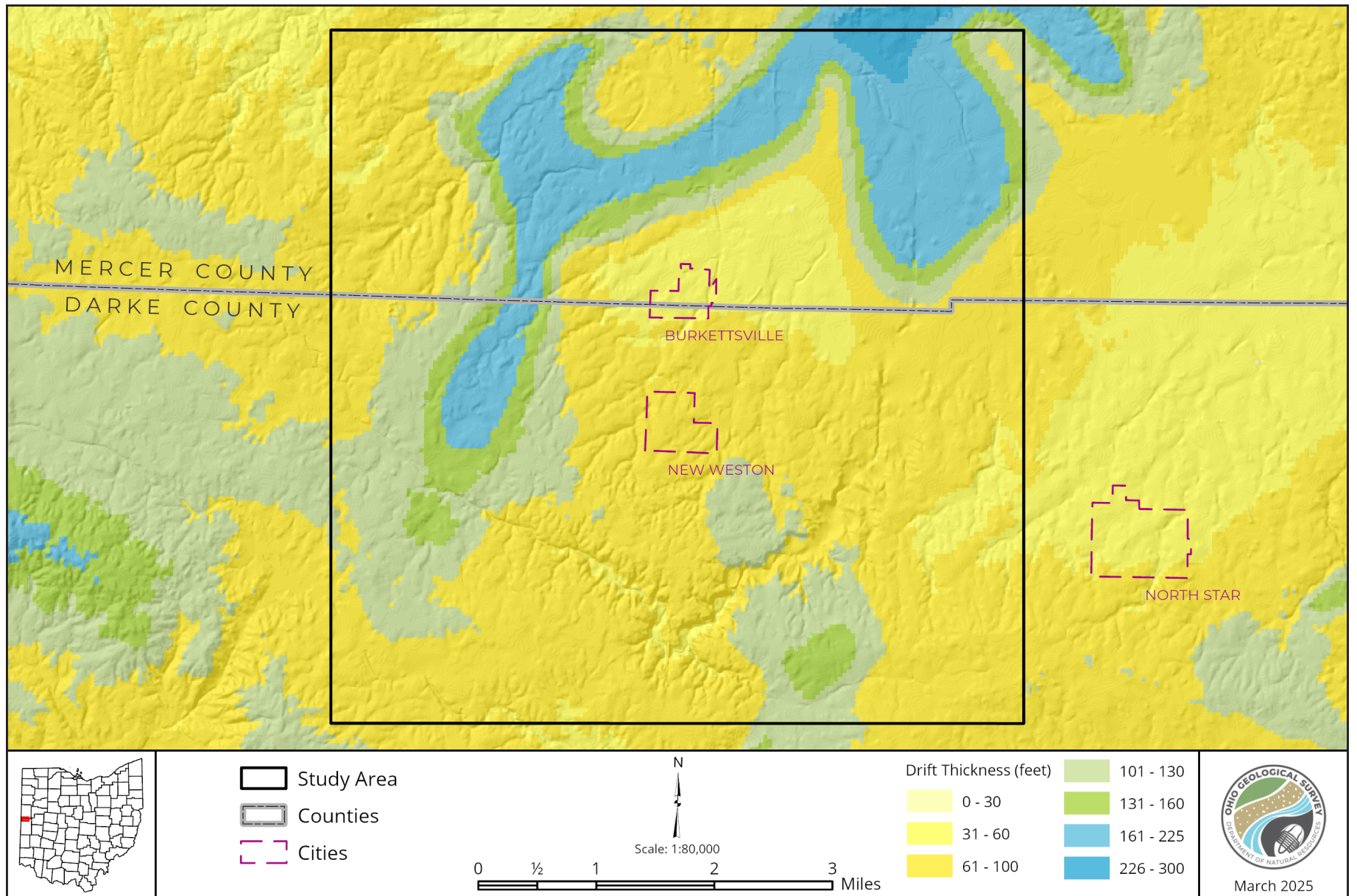


Figure 4. Drift thickness within the study area (Powers and Swinford, 2004).

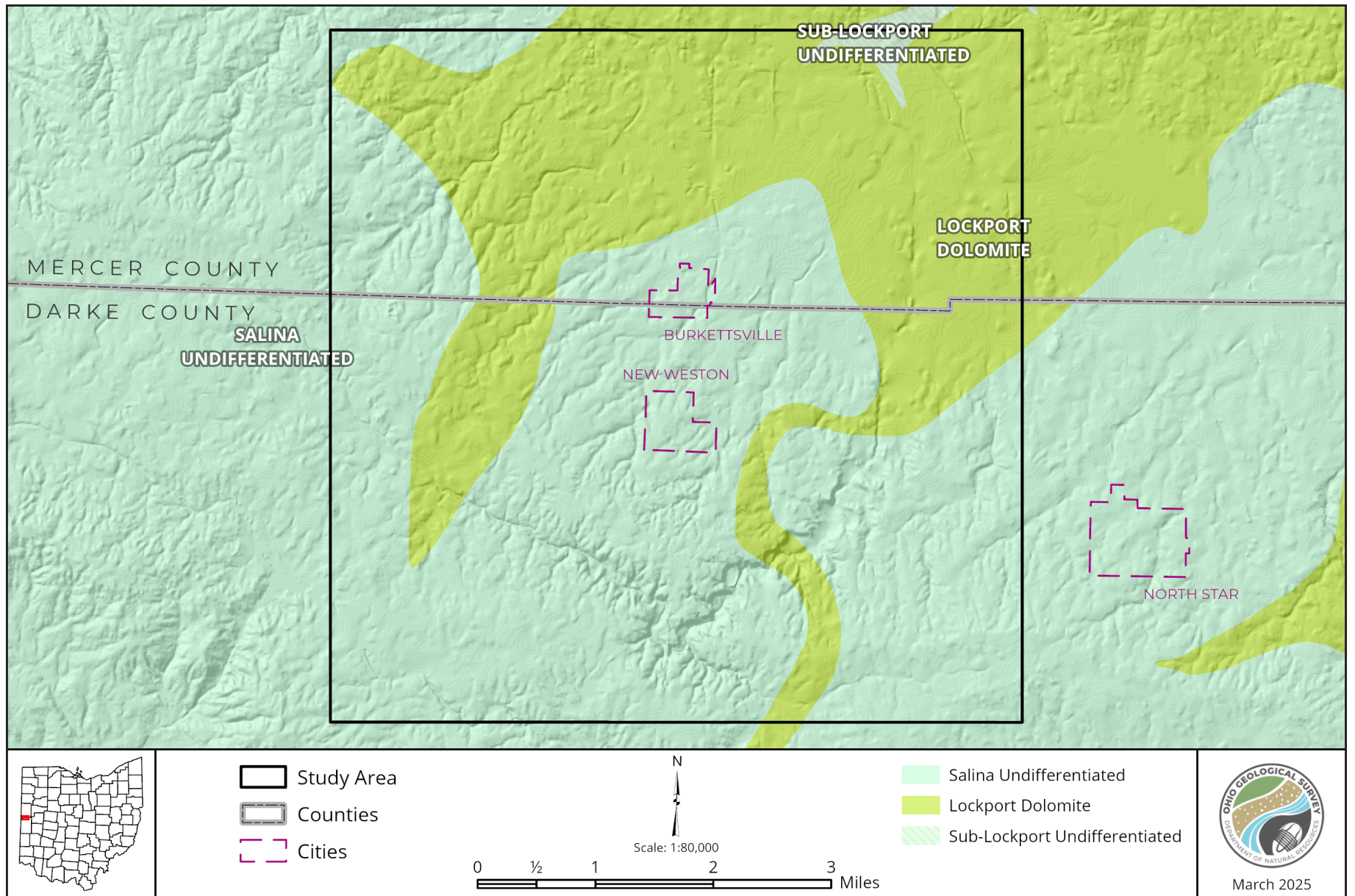


Figure 5. Bedrock geology near the study area (Slucher and others, 2006).

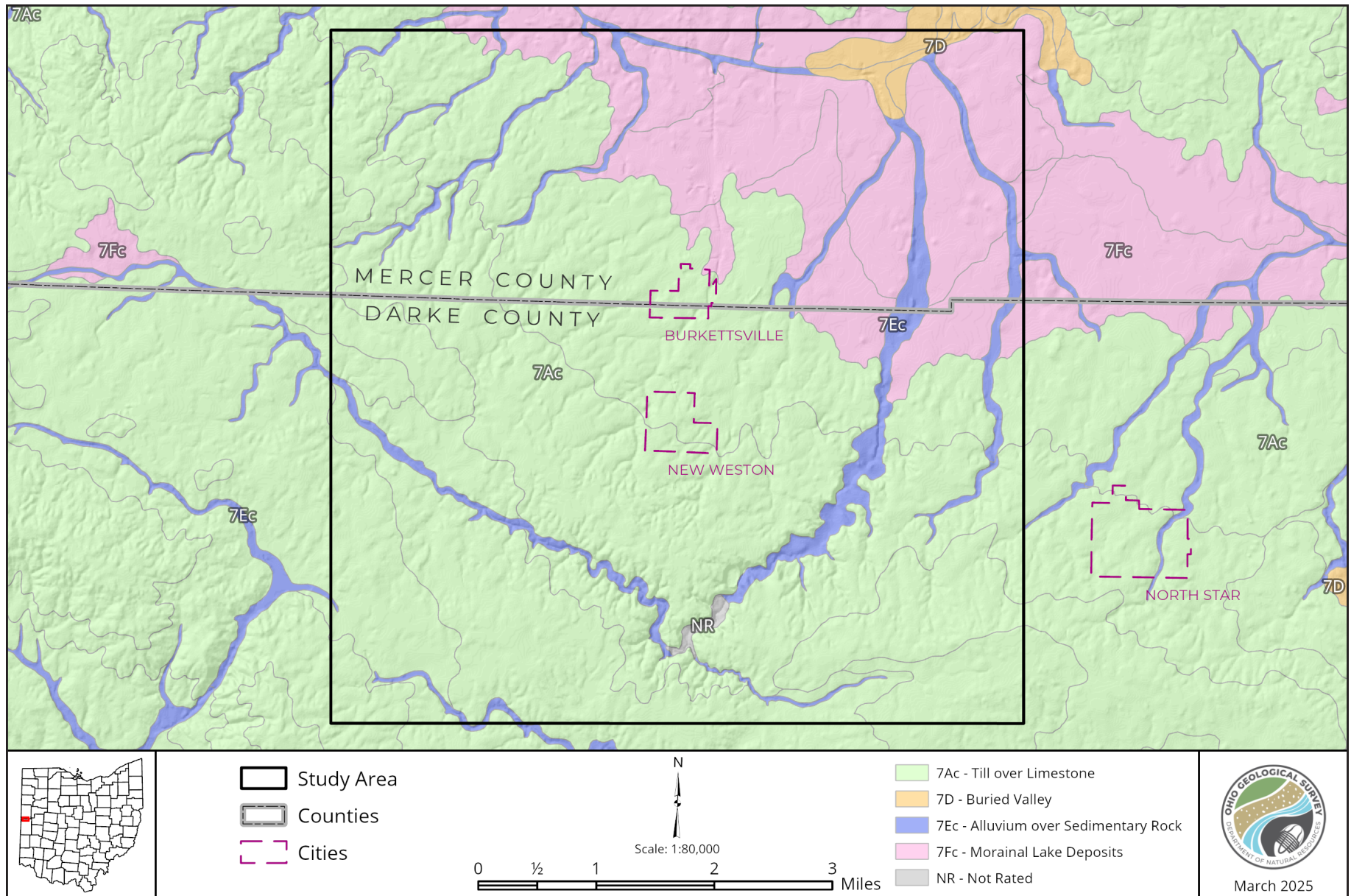


Figure 6. Distribution of hydrogeologic settings near the study area (Nelson and others, 2022).

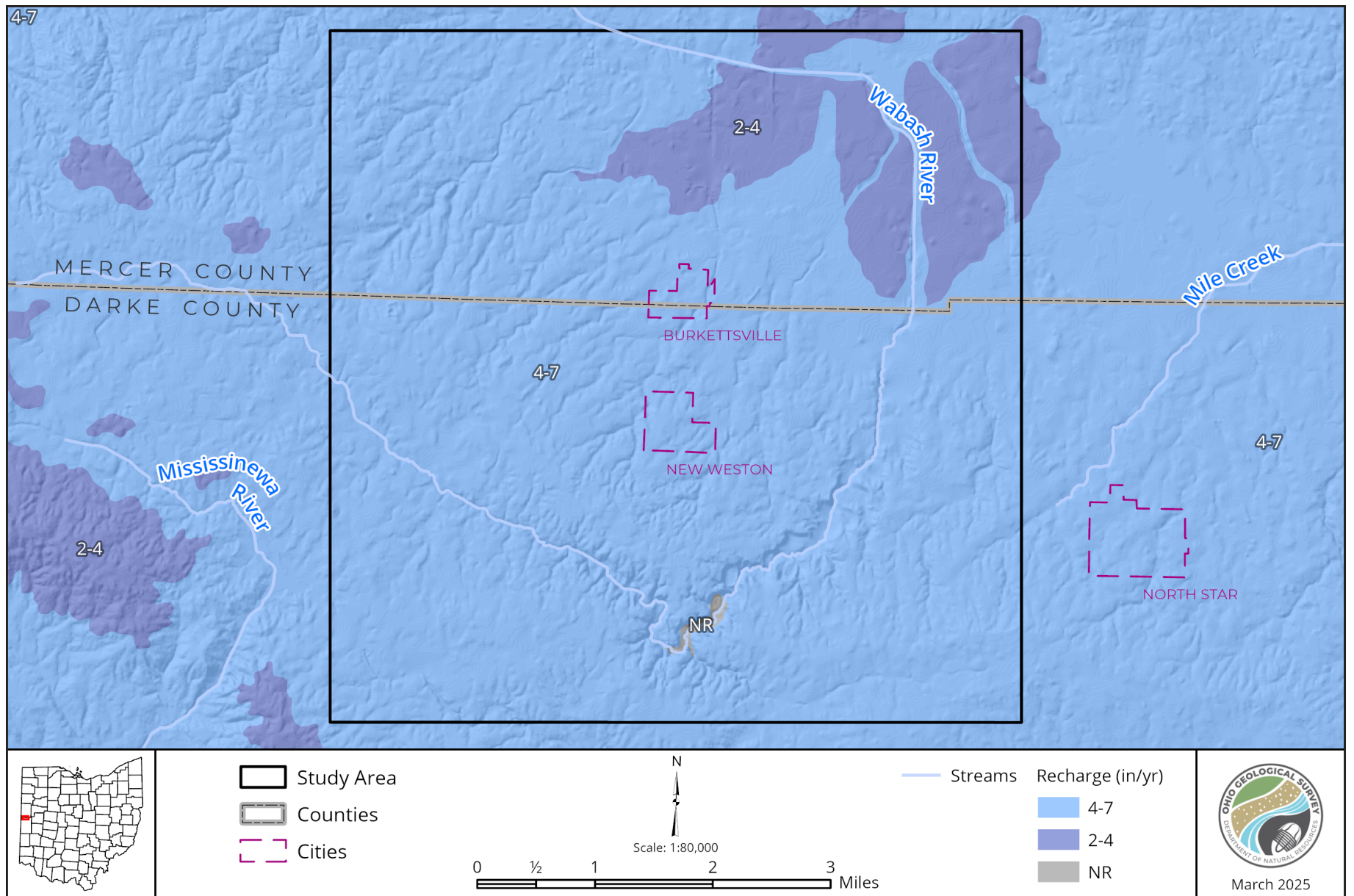


Figure 7. Net recharge near study area (Nelson and others, 2022).

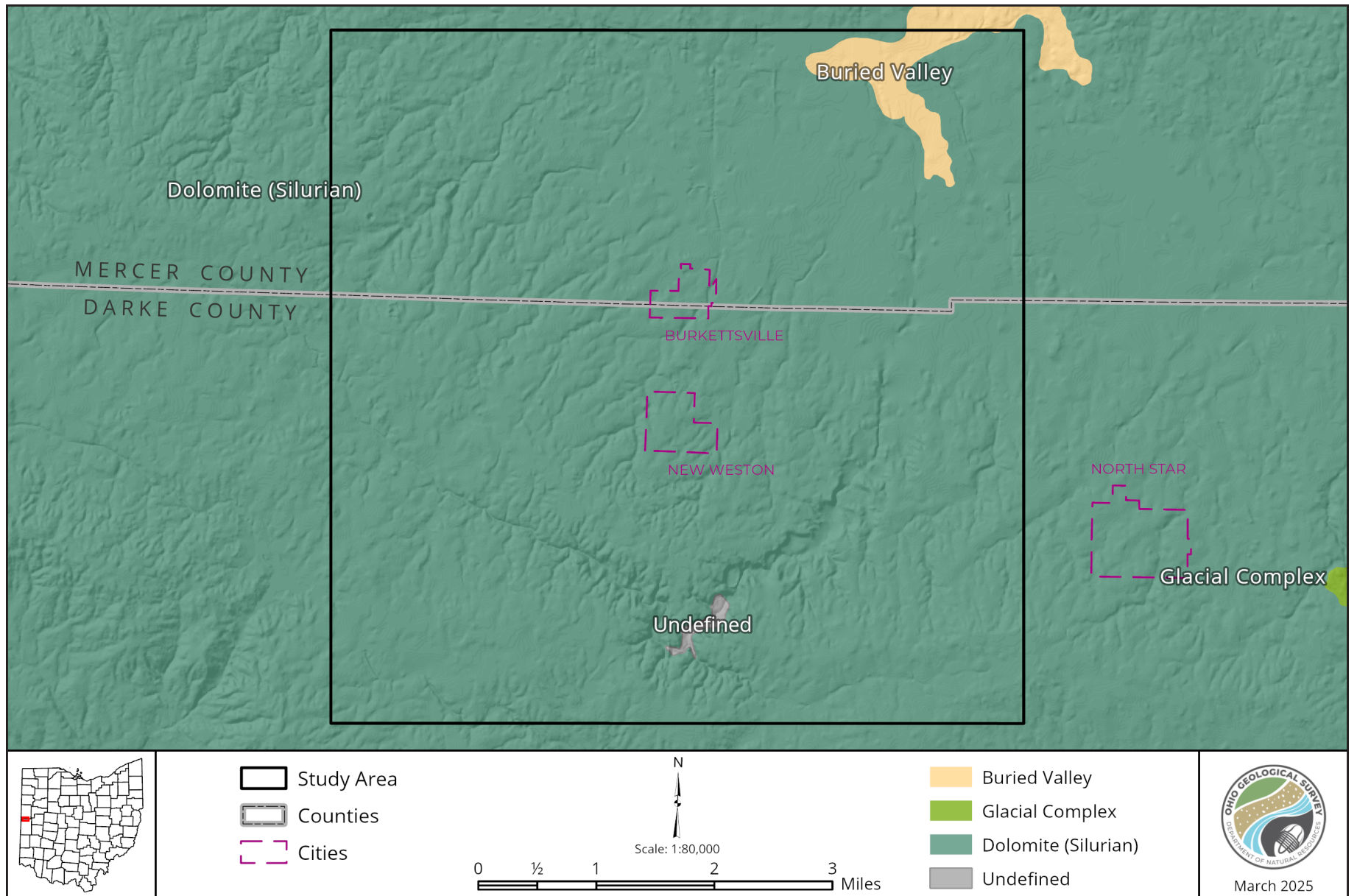


Figure 8. Primary aquifers within the study area (ODNR Geology Interactive Map).

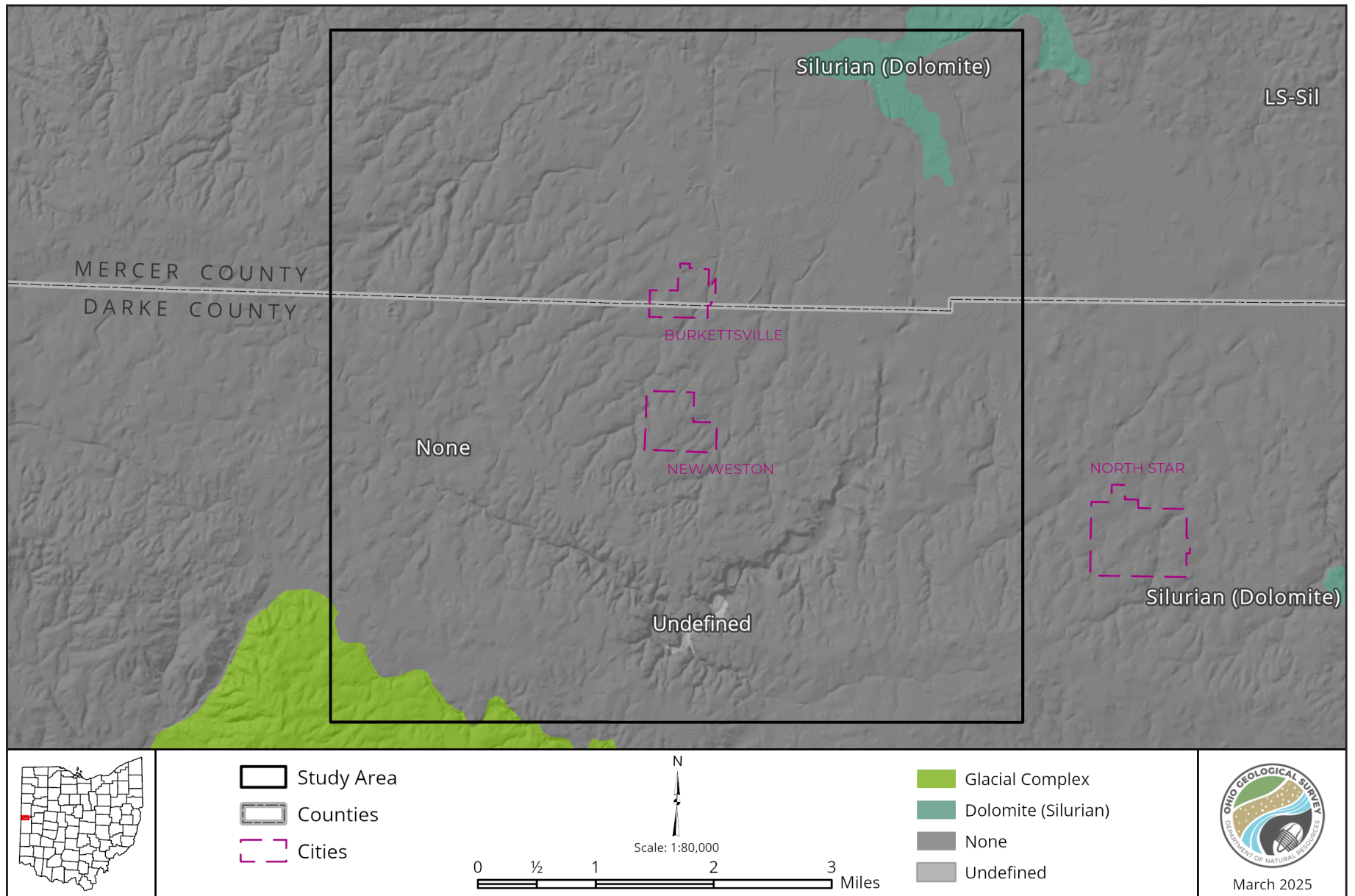


Figure 9. Secondary aquifers in the study area (ODNR Geology Interactive Map).

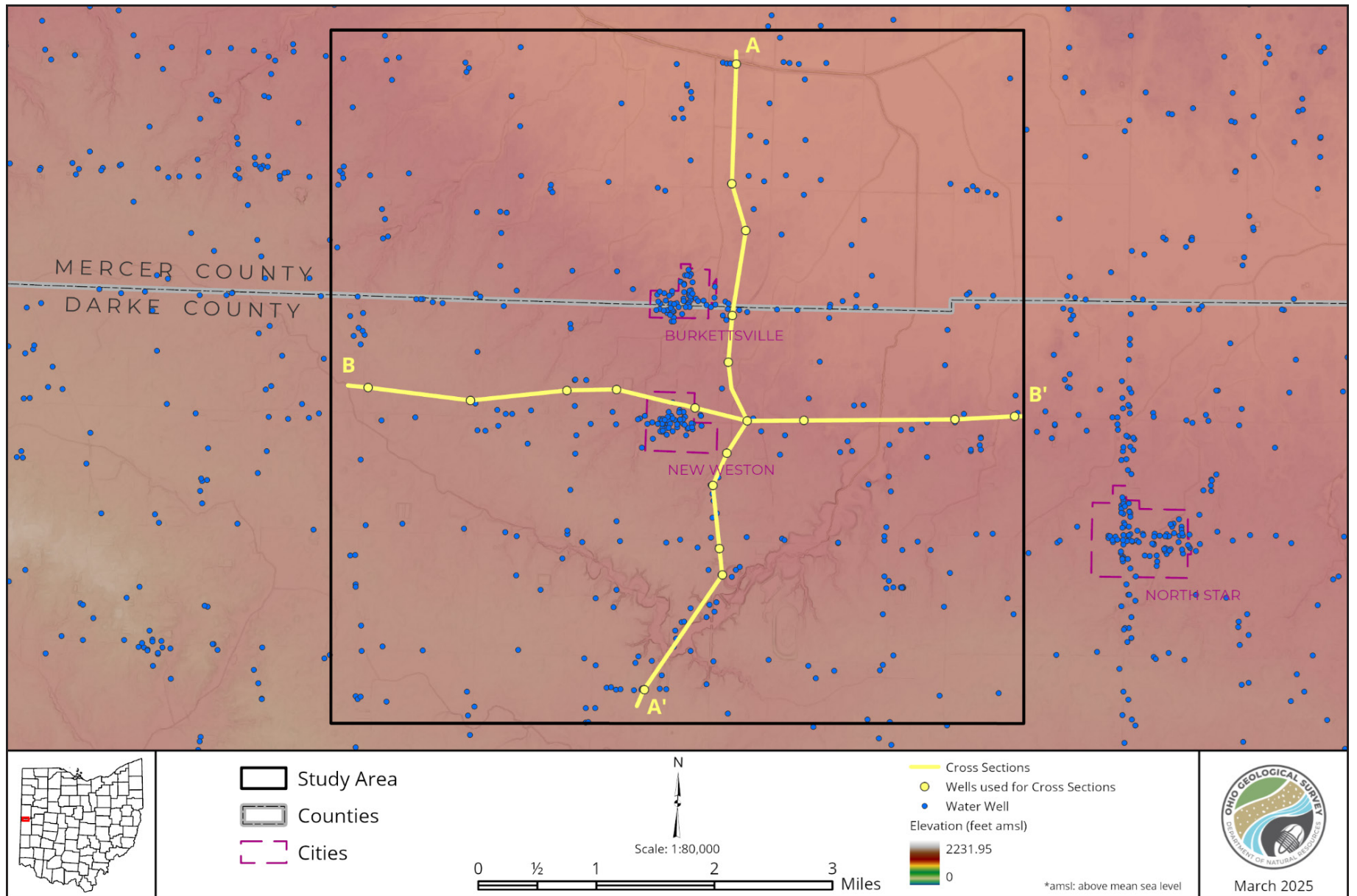


Figure 10. Cross sections A-A' and B-B' in map view.

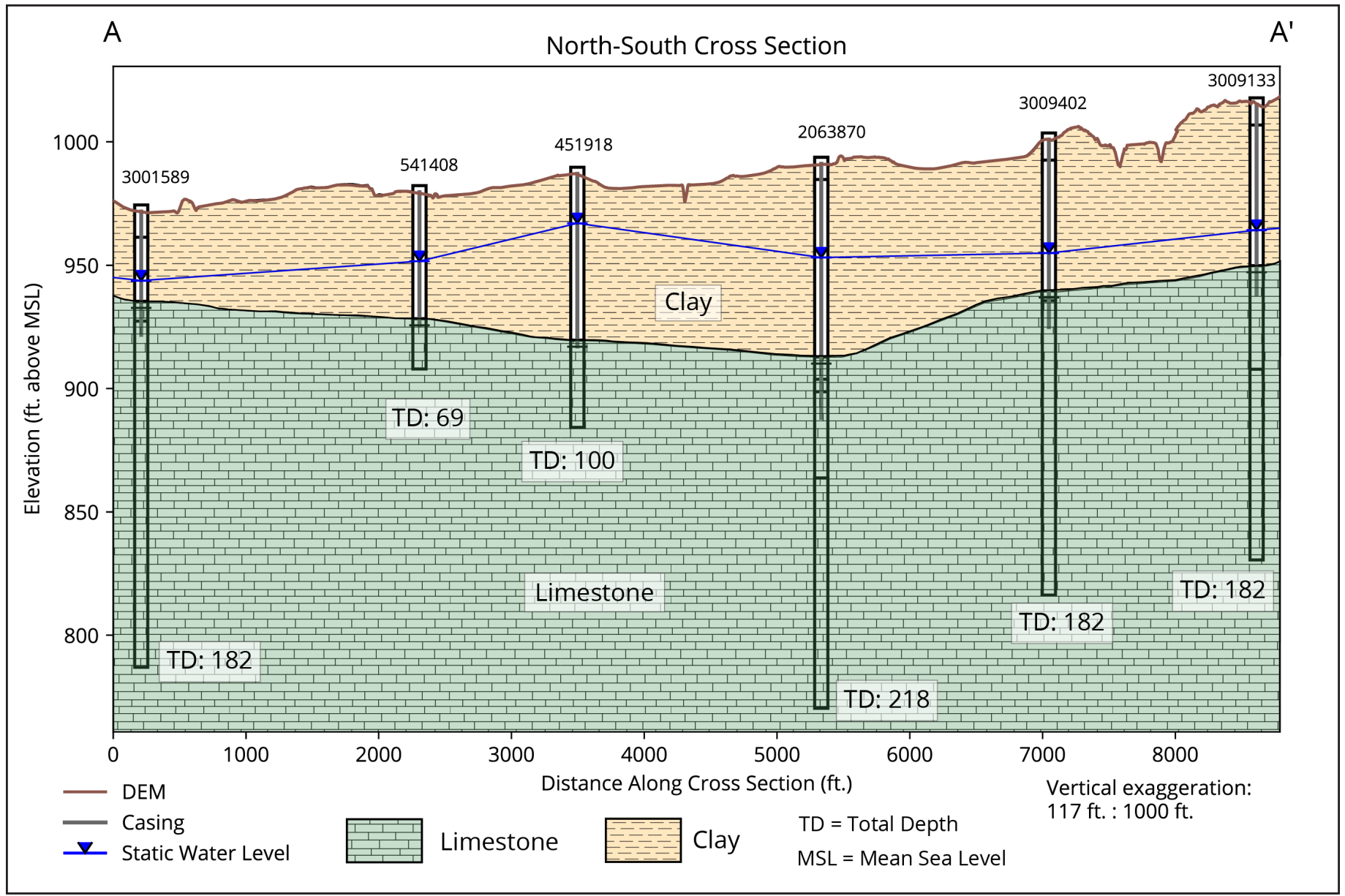


Figure 11. Cross section A-A'.

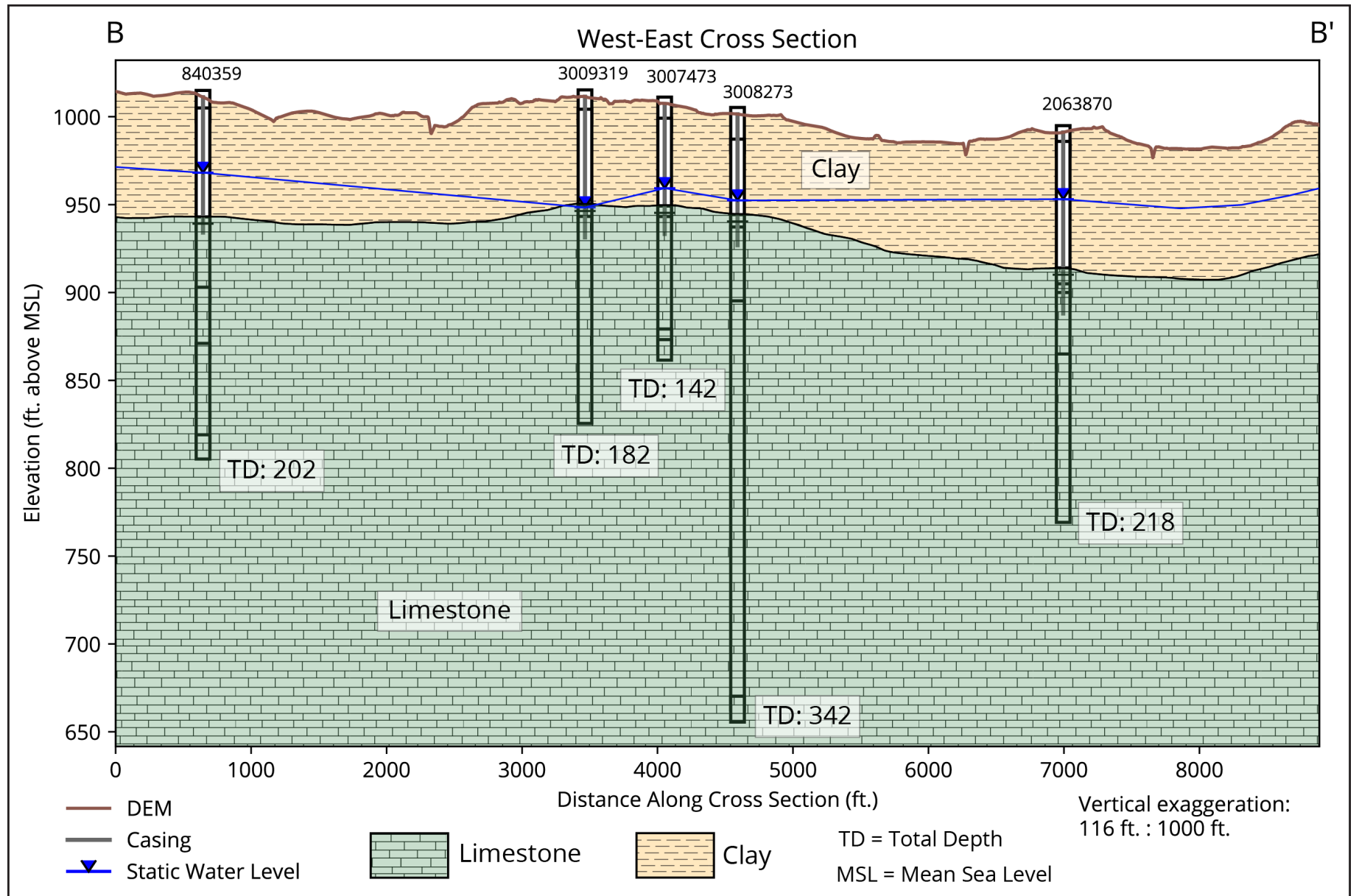


Figure 12. Cross section B-B'.

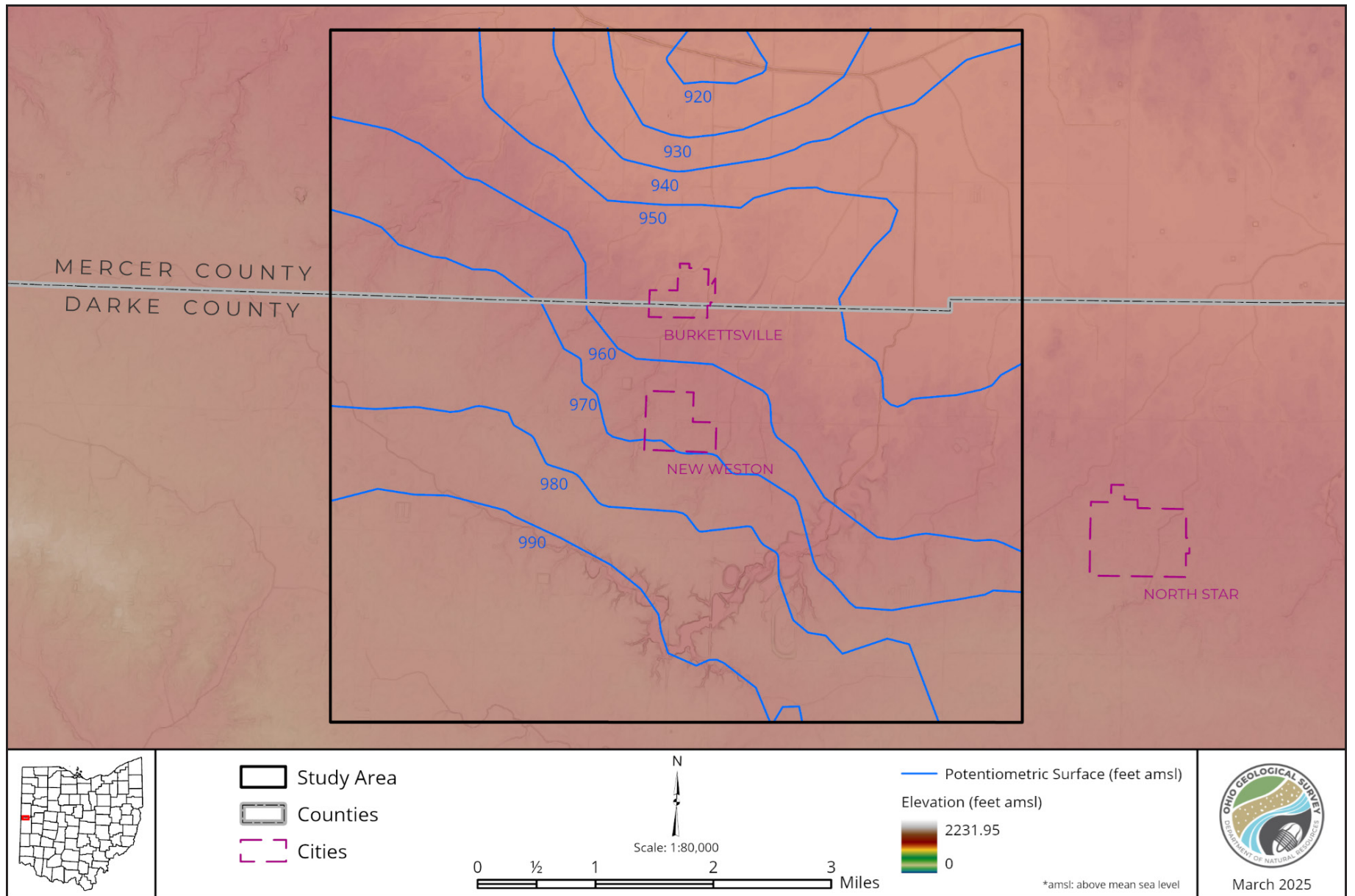


Figure 13. Bedrock potentiometric surfaces near the study area.

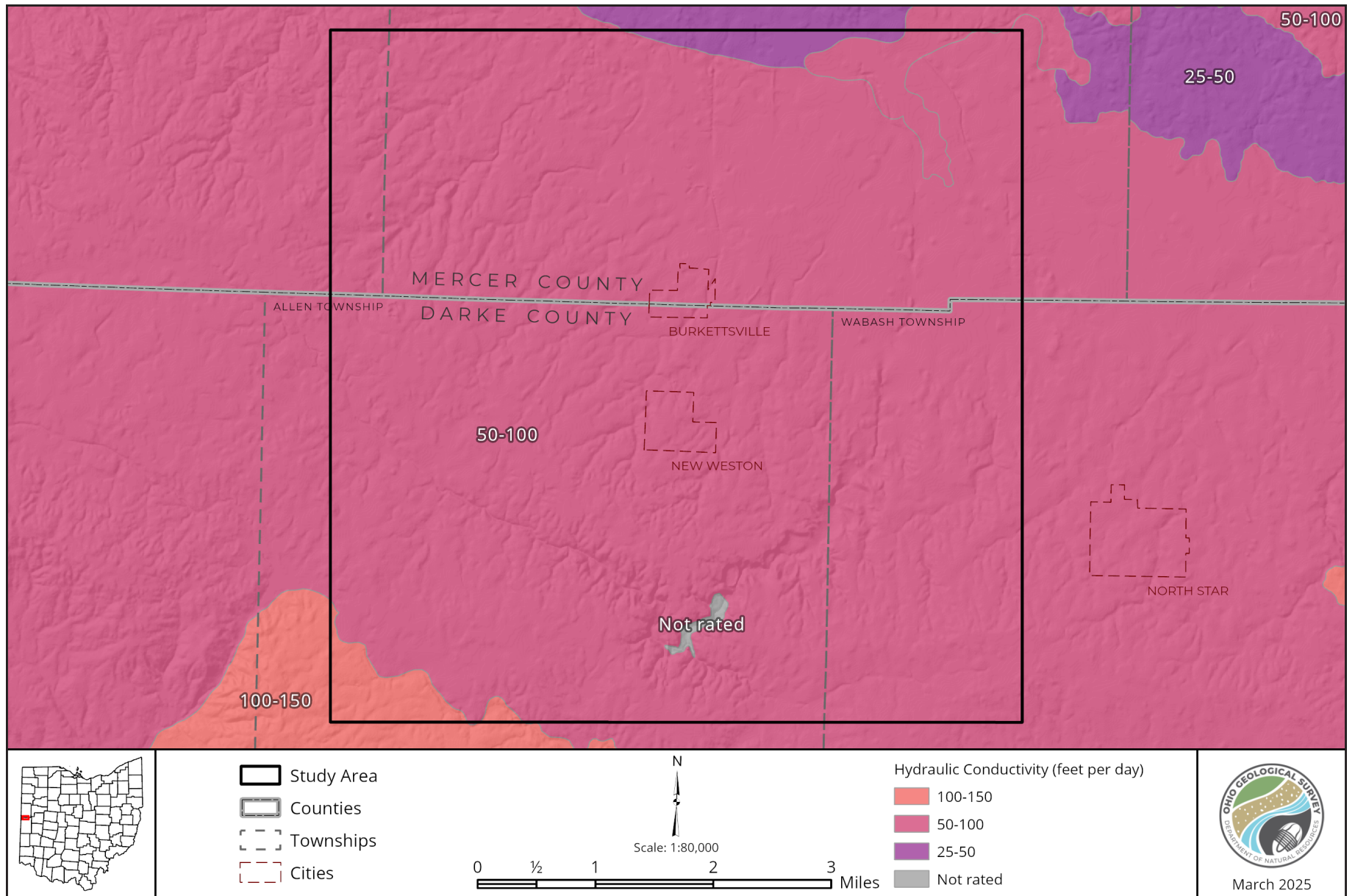


Figure 14. Hydraulic conductivity in the study area (Lanier and others, 2025).

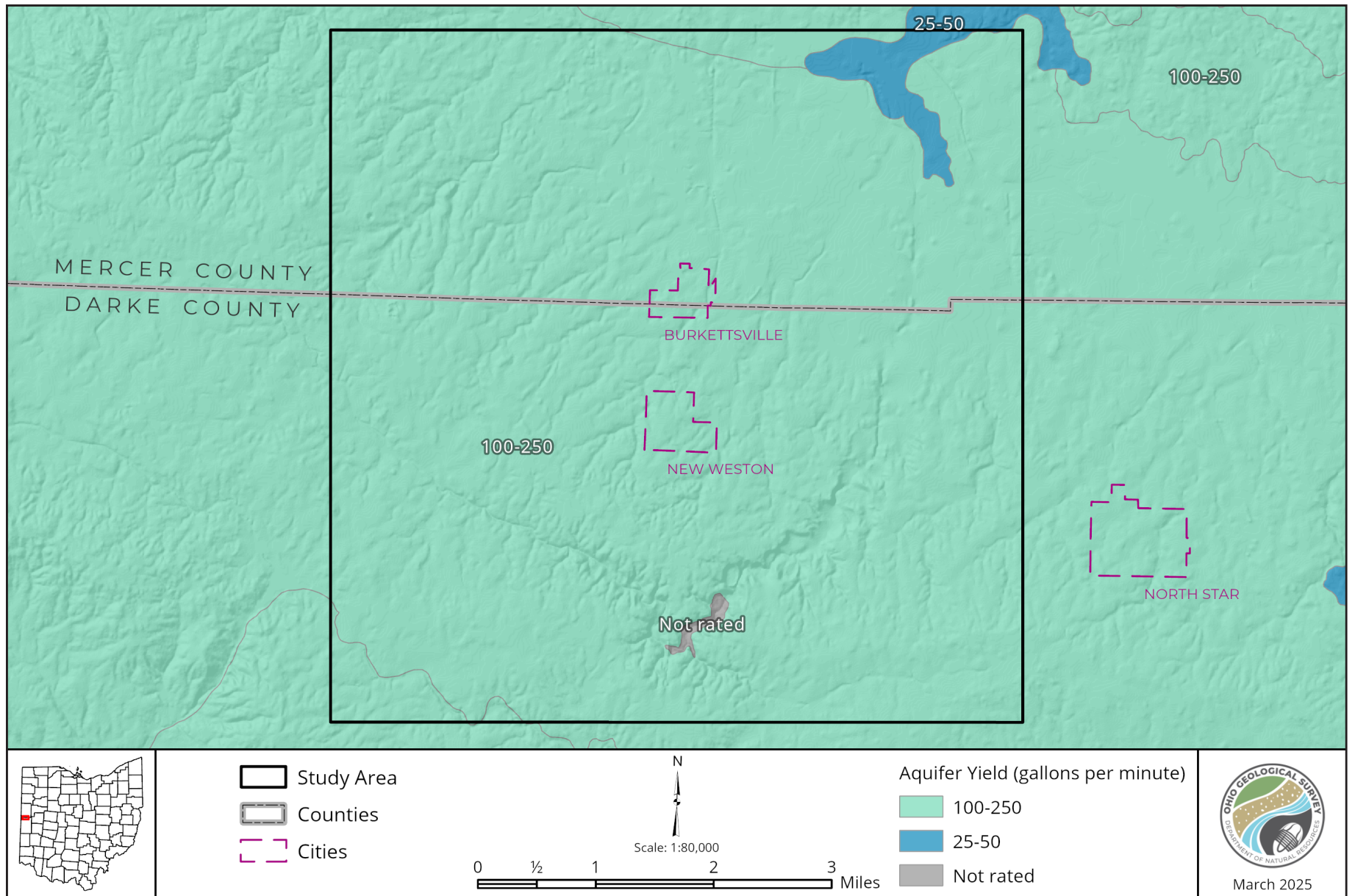


Figure 15. Primary aquifer yield near study area (Potucek and others, 2025).

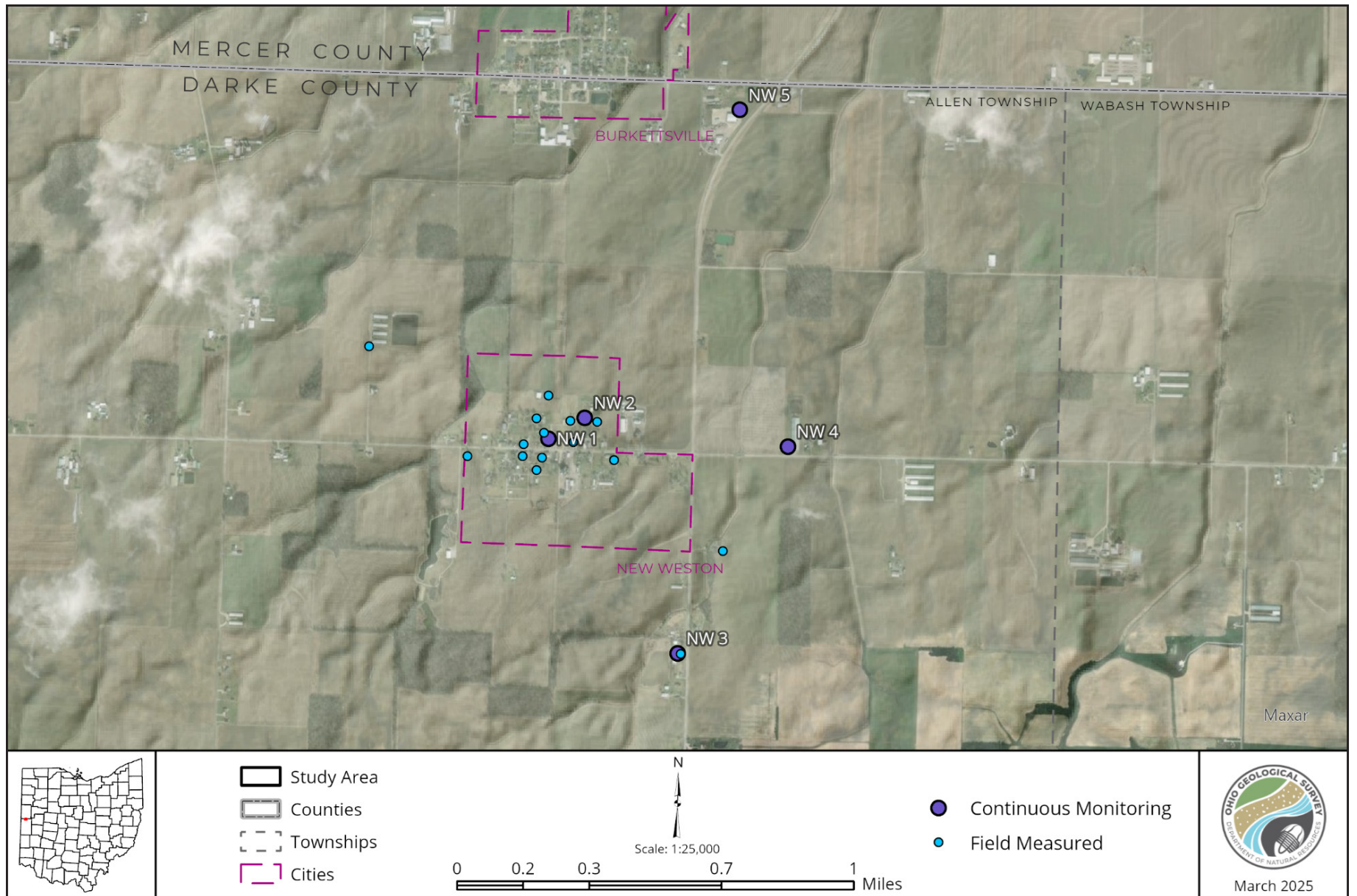


Figure 16. New Weston continuous monitoring and field measured sites.

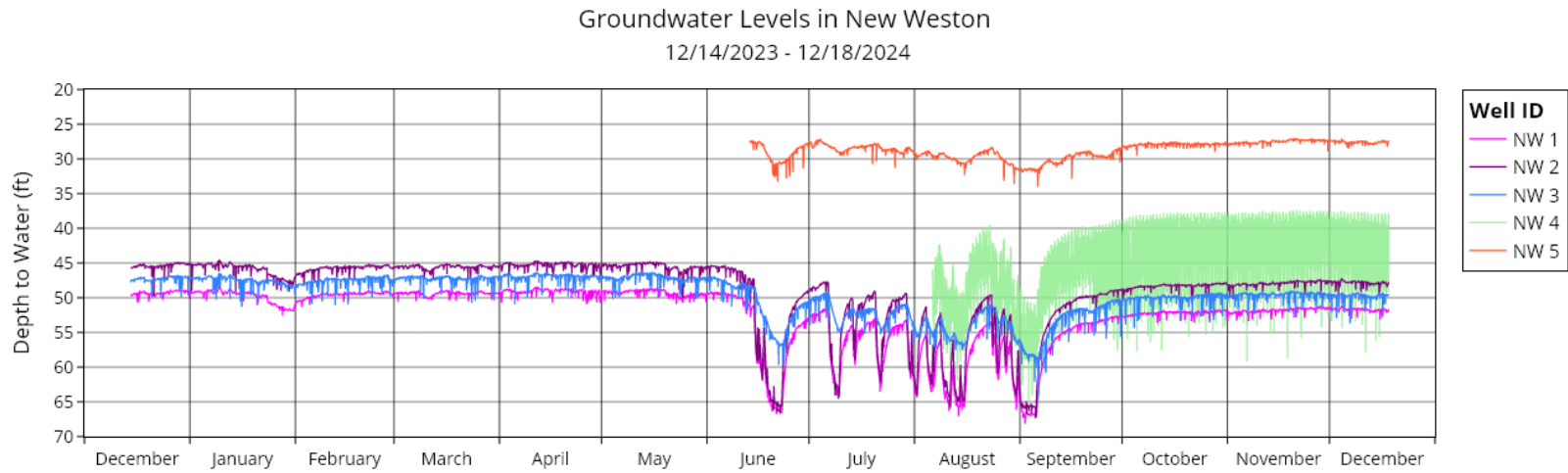


Figure 17. Hydrograph with New Weston field sites.

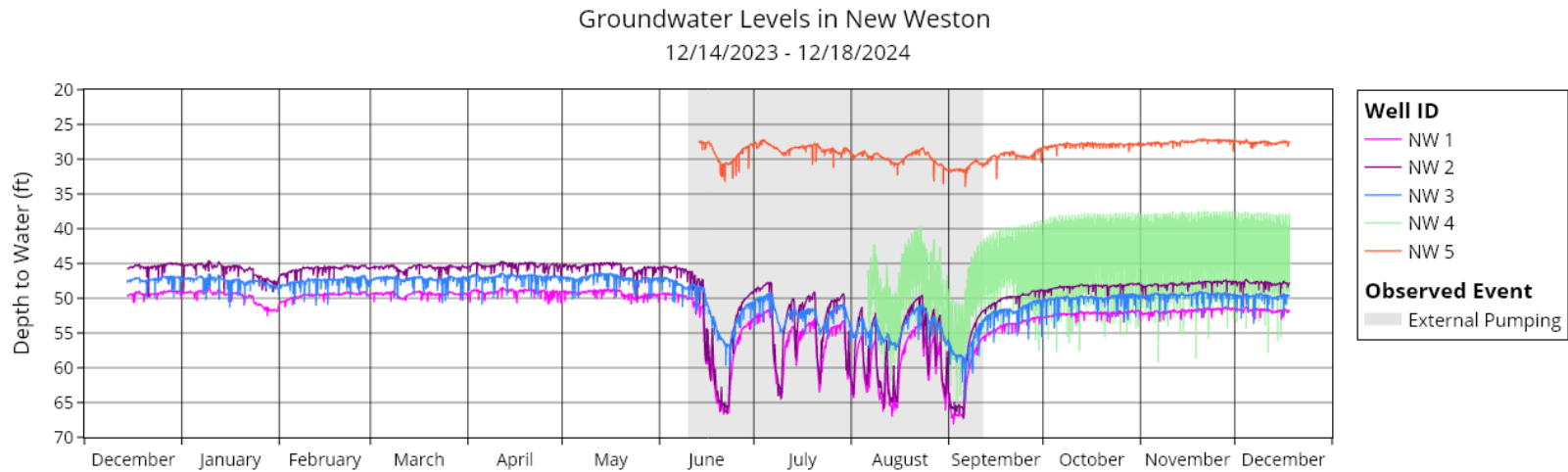


Figure 18. Hydrograph with New Weston field sites showing highlighted external pumping signatures.

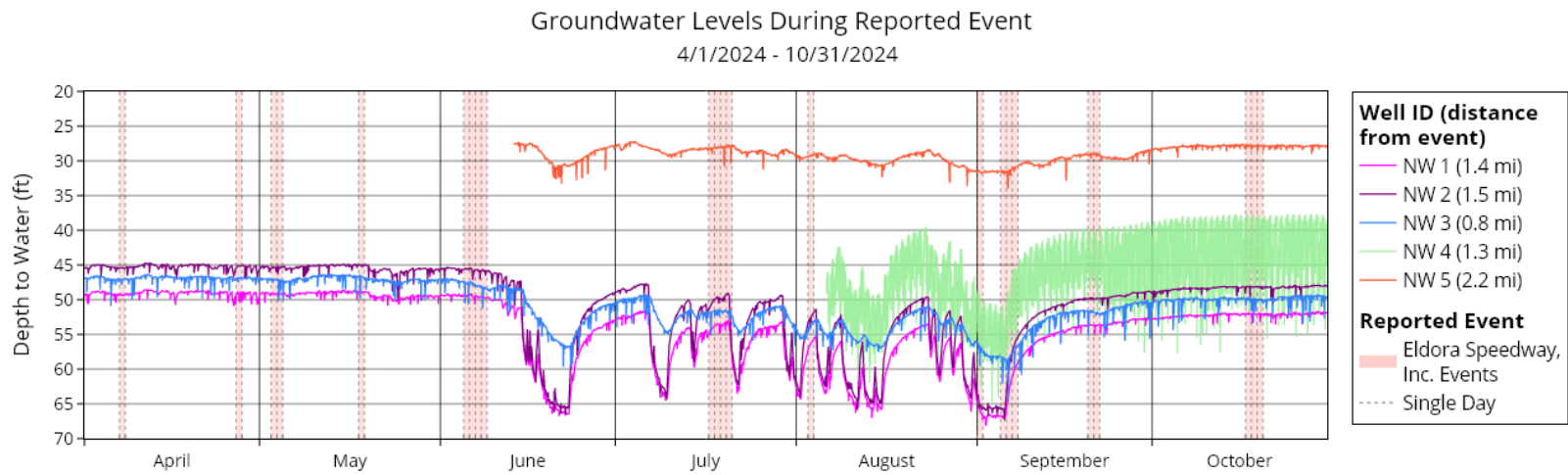


Figure 19. Hydrographs with Eldora Speedway, Inc. events.

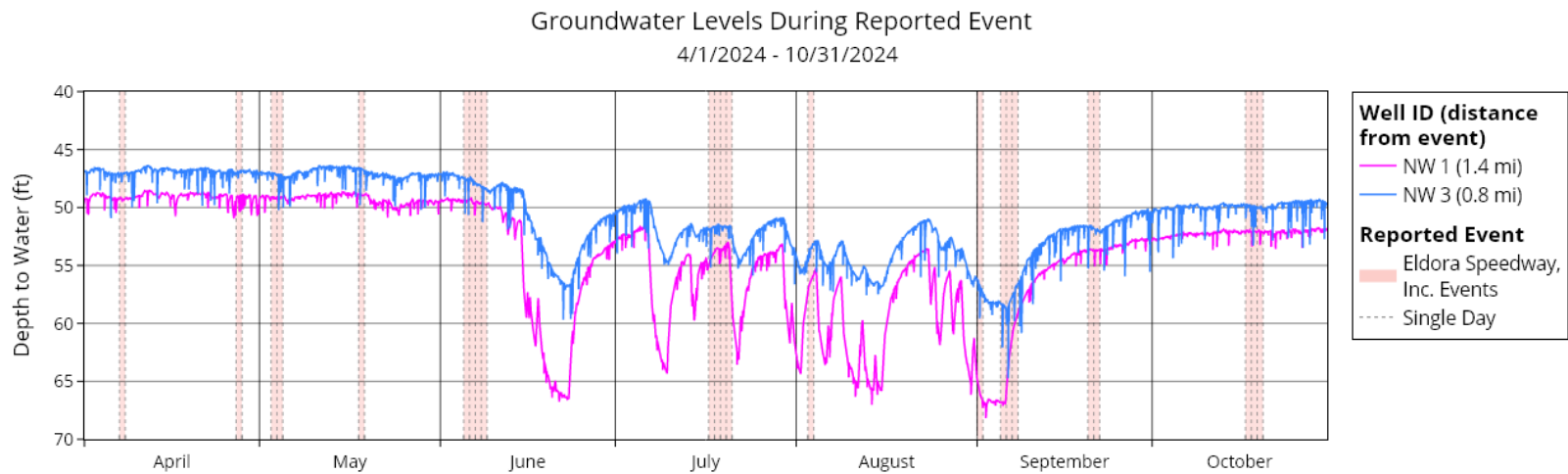


Figure 20. NW 1 and NW 3 hydrographs with Eldora Speedway, Inc. events.

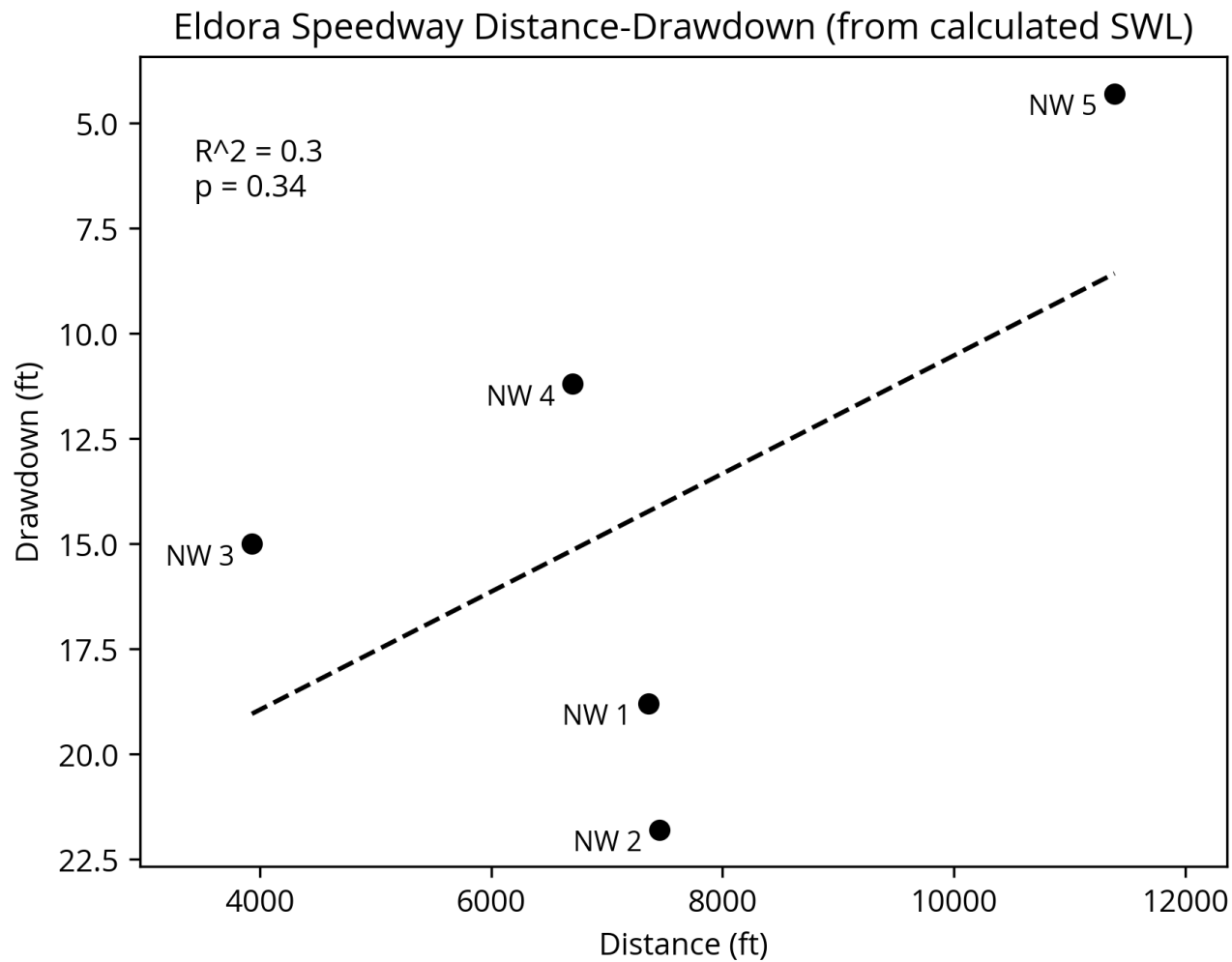


Figure 21. Distance-drawdown graph showing the drawdowns in continuously monitored wells in relation to Eldora Speedway, Inc.

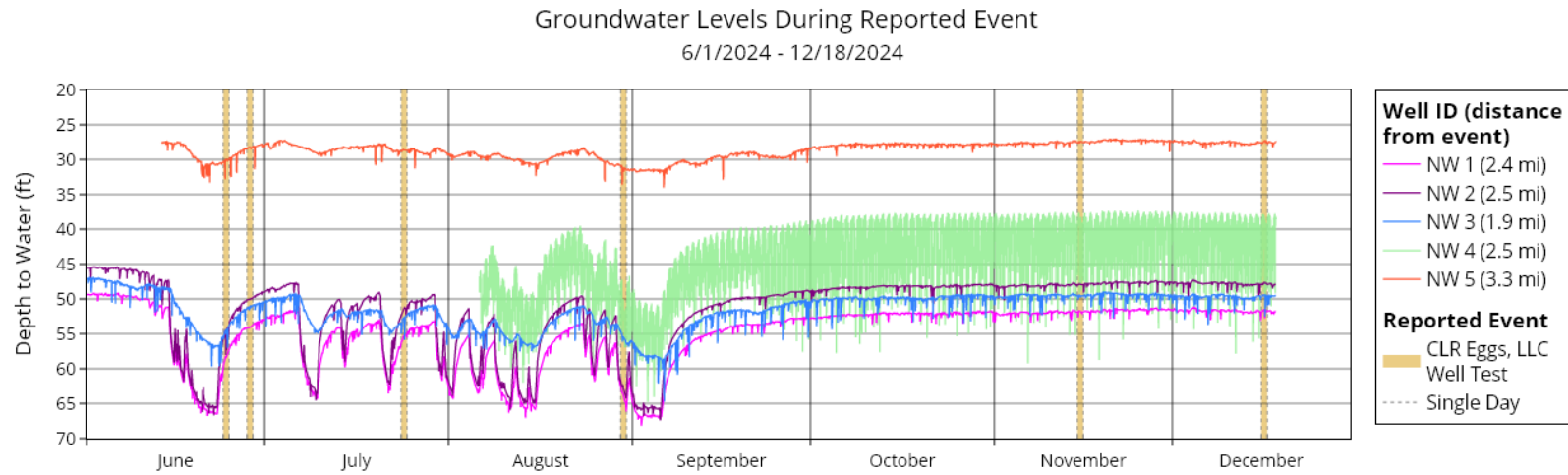


Figure 22. Hydrographs with well-completion test dates at CLR Eggs, LLC.

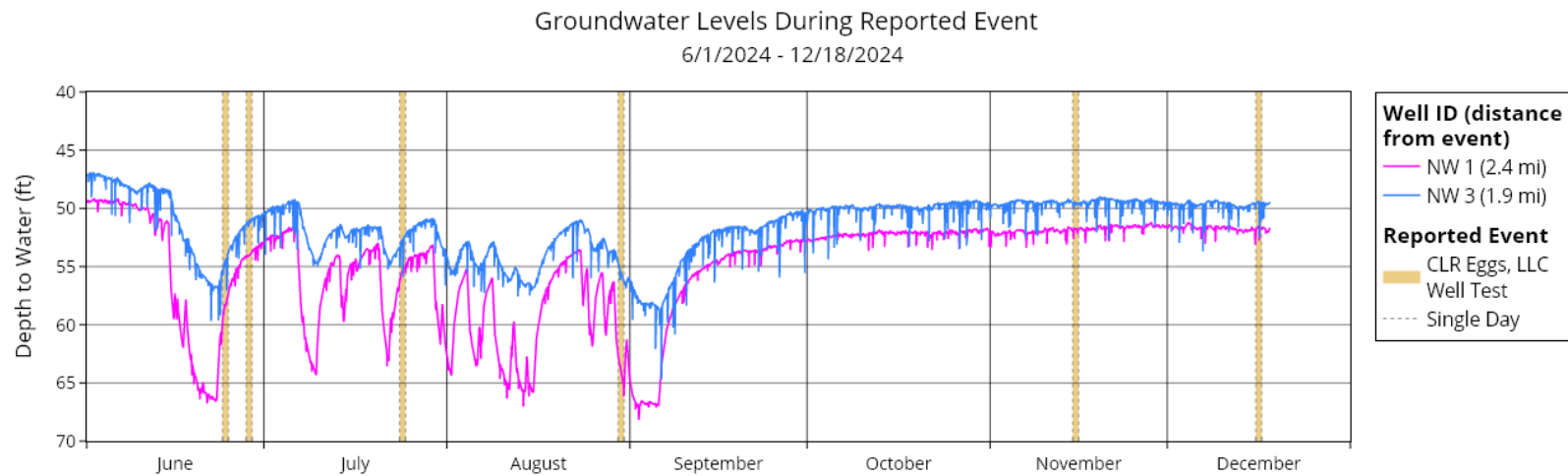


Figure 23. NW 1 and NW 3 with well-completion test dates at CLR Eggs, LLC.

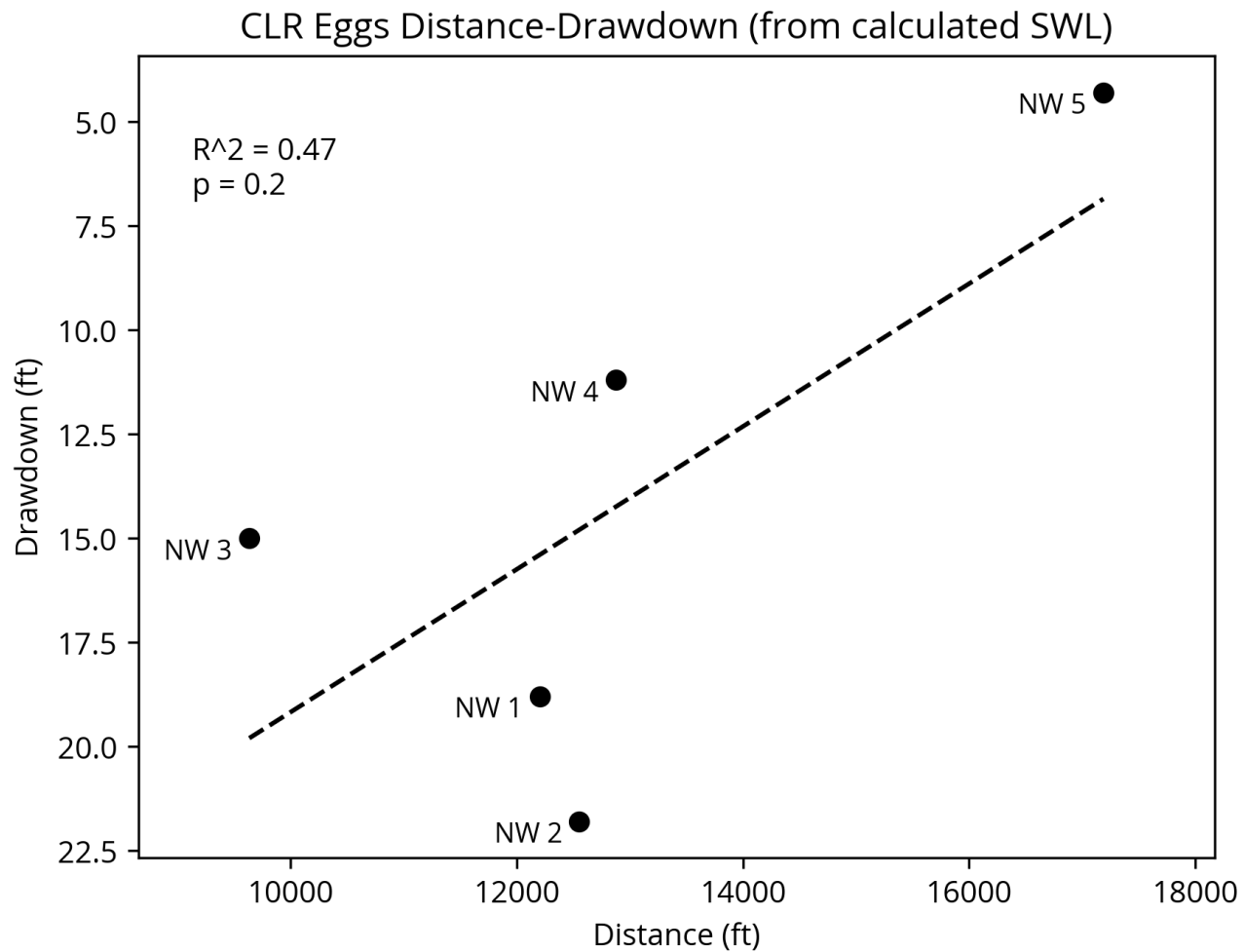


Figure 24. Distance-drawdown graph showing the drawdowns in continuously monitored wells in relation to CLR Eggs, LLC.

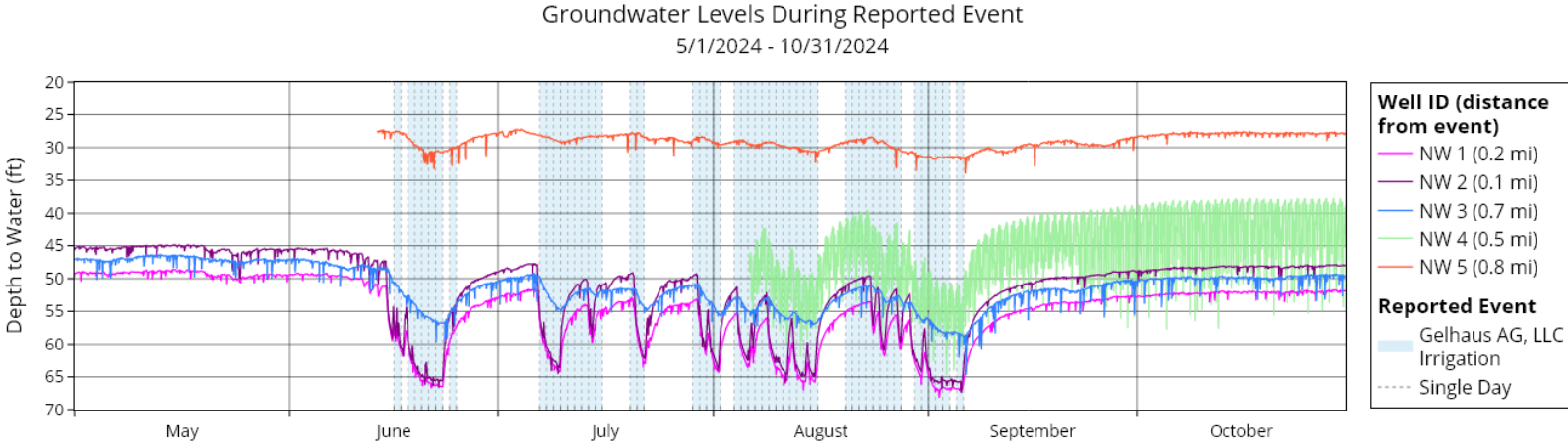


Figure 25. Hydrograph with suspected pumping events at Gelhaus Ag, LLC.

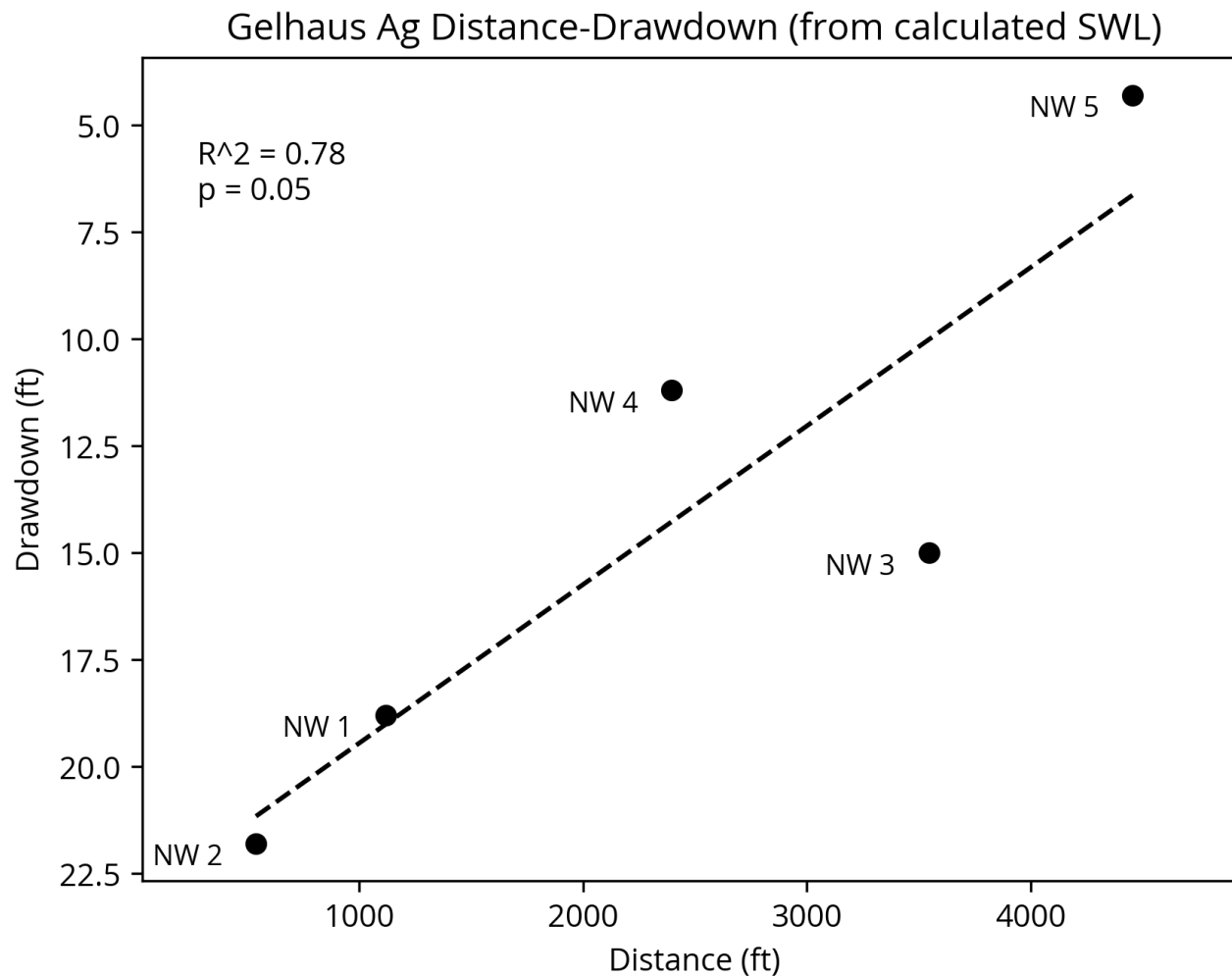


Figure 26. Distance-drawdown graph showing the drawdowns in continuously monitored wells in relation to Gelhaus Ag, LLC.

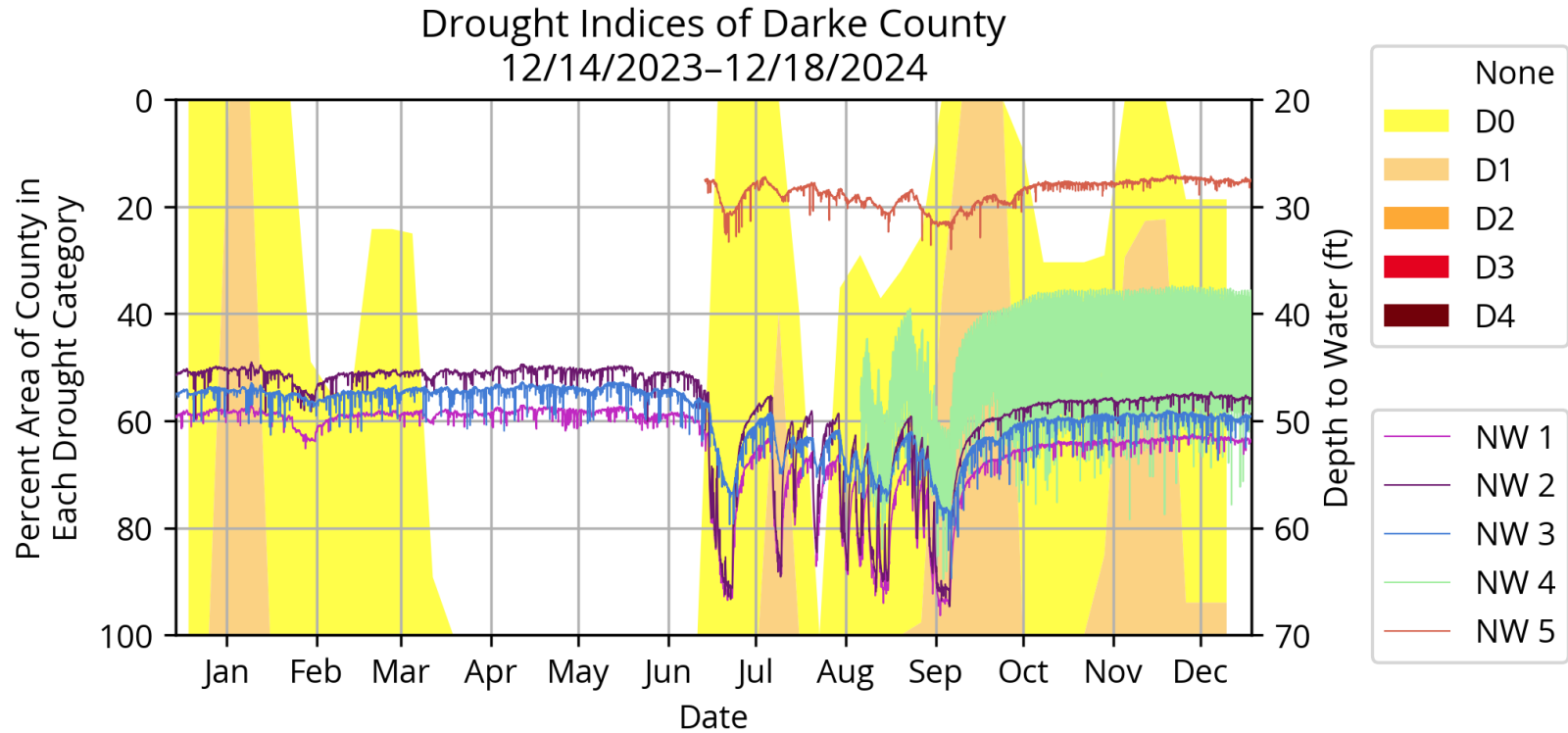


Figure 27. Hydrographs of NW 1-5 overlain with the Darke County drought index (NIDIS, 2011).

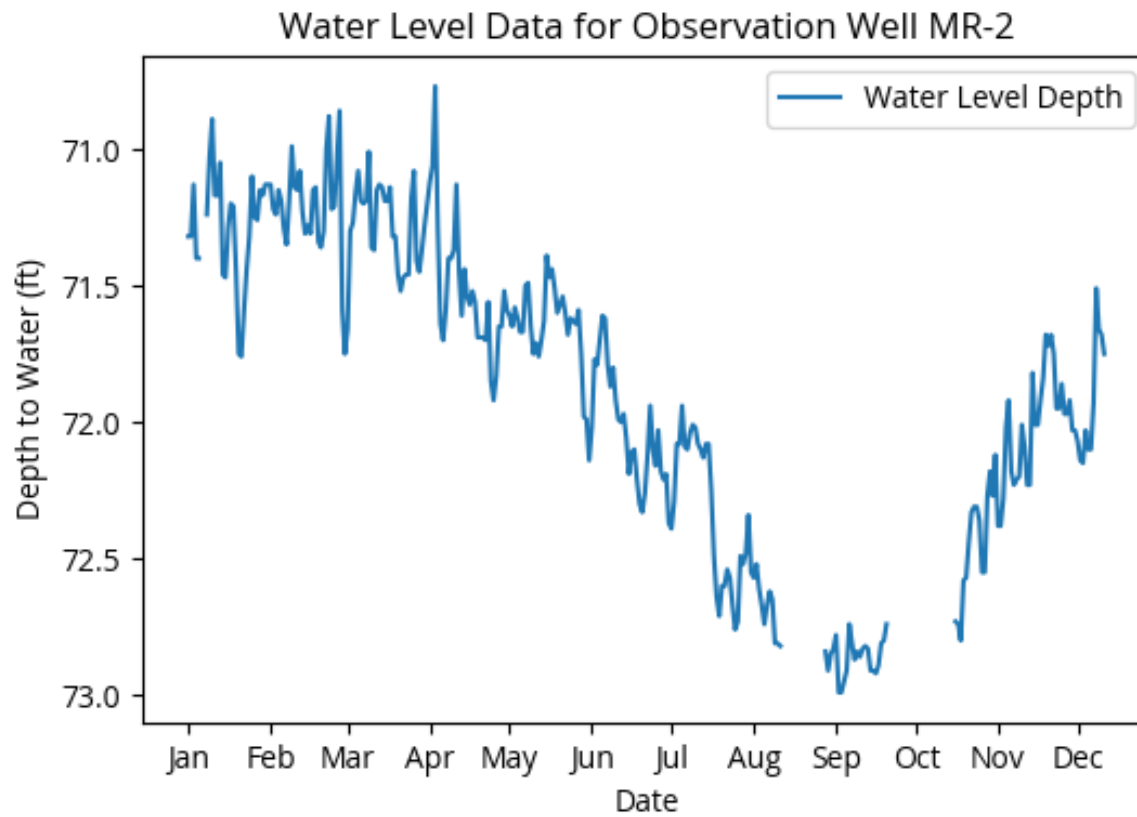


Figure 28. Depth of water level below land surface for Observation Well MR-2 from January 2024 to December 2024.

TABLES

Table 1. Complaine Facilities

	Gelhaus Ag, LLC	Eldora Speedway, Inc.	CLR Eggs, LLC
Number of Wells	1	3	4
Withdrawal Capacity	220,000 gpd	360,000 gpd	380,000 gpd
Registration Date	8/28/2023	11/3/2023	3/31/2022

*Table 2. Descriptions of Hydrogeologic Settings in the Study Area
(modified from Nelson and Valachovics, 2022)*

Hydrogeologic Setting	Description
7Ac – Till over Limestone	Low-relief limestone or dolomite bedrock covered by varying thicknesses of glacial till. Till thickness may represent ground versus end moraines. Till may be locally interbedded with sand, gravel, or silt. Soils are typically shrink-swell clay or clay loam, and the vadose zone is usually till.
7D – Buried Valley	Pre- or interglacial bedrock valleys filled with interbedded sands, gravels, tills, and/or alluvial deposits that may be overlain by more recent till or lacustrine sediments.
7Ec – Alluvium over Sedimentary Rock	Areas characterized by modern alluvial streams located directly over bedrock or thin glacial deposits over bedrock. Soils are mostly silt loam or loam, but sandy loam is also common.
7Fc – Morainal Lake Deposits	Sediments deposited in shallow lakes formed between end moraines, containing varying thicknesses of fine-grained lacustrine deposits.

Table 3. Wells Used for Continuous Monitoring

Well ID	Well Log Number	Well Use
NW 1	3009319	Domestic
NW 2	3007473	Domestic
NW 3	3009133	Domestic
NW 4	2063870	Agriculture
NW 5	3001589	Commercial

Table 4. Static Water Levels and Maximum Drawdowns Calculated

Well ID	Median SWL (ft) (12/14/2023 - 05/31/2024)	Median SWL (ft) (10/01/2024 - 12/18/2024)	Minimum SWL (ft) (10/01/2024 - 12/18/2024)	Maximum Groundwater Level Decline (ft) (08/31/2024 - 09/05/2024)	Minimum Groundwater Level Decline (ft) (08/31/2024 - 09/05/2024)	Maximum Drawdown (ft)
NW 1	49.3	-	-	68.1	-	18.8
NW 2	45.5	-	-	67.3	-	21.8
NW 3	47.1	-	-	62.1	-	15.0
NW 4	-	-	37.4	-	48.6	11.2
NW 5	-	27.7	-	32.0	-	4.3

Table 5. Percent of Available Head Remaining from External Pumping Event

Well ID	SWL (ft)	Maximum Drawdown (ft)	Pump Setting (ft bls)	Total Head Available minus 5 feet (ft)	Percent of Available Head Remaining
NW 1	49.3	18.8	80	25.7	26.8
NW 2	45.5	21.8	80	29.5	26.1
NW 3	47.1	15	90	37.9	60.4
NW 4	48.6	11.2	120	66.4	83.1
NW 5	27.7	4.3	85	52.3	91.8

Table 6. CLR Eggs, LLC New Wells and Test Rates

Well Log Number	Test Rate (gallons per minute)	Date of Testing
3015801	125	06/24/2024
3015916	120	06/28/2024
3016431	60	07/24/2024
3017393	90	08/30/2024
3019083	145	11/15/2024
3019739	125	12/16/2024

Appendix A. Preliminary Review Letter



Ohio Department of Natural Resources

MIKE DEVINE, GOVERNOR

MARY MERTZ, DIRECTOR



Division of Water Resources
Dena C. Barnhouse, P.E., Chief
 2045 Morse Road/Building B-3
 Columbus, Ohio 43229
 614-265-6620
[water@dnr.ohio.gov](http://water.dnr.ohio.gov)

August 25, 2023

Carroll Bertke
 600 Main Street
 New Weston, OH 45348

Teresa Birt
 500 Main Street
 New Weston, OH 45348

Barbara Birt
 507 Main Street
 New Weston, OH 45348

Charlie Borger
 603 Main Street
 New Weston, OH 45348

Rita Borger
 410 Walnut Street
 New Weston, OH 45348

Charlie Evers
 14375 OH-118
 New Weston, OH 45348

Quinton Foster
 402 Walnut Street
 New Weston, OH 45348

Ryan Foster
 404 Walnut Street
 New Weston, OH 45348

William Garland
 504 Pearl Street
 New Weston, OH 45348

Gaylelynn Norwood
 408 Main Street
 New Weston, OH 45348

John Quinn
 504 Walnut Street
 New Weston, OH 45348

Jerry Singer
 14236 OH-118
 New Weston, OH 45348

Gelhaus AG, LLC
 William H. Gelhaus
 Statutory Agent
 4432 State Route 705
 New Weston, Ohio 45348

Eldora Speedway, Inc.
 CT Corporation System
 Statutory Agent
 4400 Easton Commons Way
 Suite 125
 Columbus, OH 43219

CLR Eggs, LLC
 Gary A. Cooper
 Statutory Agent
 P.O. Box 547
 Oakwood, OH 45873

RE: **Potential Ground Water Conflict**
City/Village: Village of New Weston, Ohio
Township: Allen
County: Darke

Dear Ground Water Users:

The Ohio Department of Natural Resources (ODNR) has completed a preliminary review of its existing technical information relevant to this potential conflict between ground water users and the ground water resources at this location.

Potential Ground Water Conflict – Village of New Weston – Preliminary Review
August 25, 2023
Page 2

By way of background, on July 12, 2023, a resident of the Village of New Weston contacted ODNR to allege that domestic water wells in the Village had been dewatered. ODNR contacted ten Village residents who also claimed their wells had been dewatered, the Darke County Health District, and the owners or operators of three facilities suspected by the Village residents to be responsible for or involved in the potential conflict: (1) Gelhaus AG, LLC; (2) Eldora Speedway, Inc.; and (3) CLR Eggs, LLC.

Most of the wells in the Village that were claimed to be dewatered were reported to have been old, shallow (less than approximately 80 feet in total depth), and/or of small-diameter casing (e.g., 4 inches), making them susceptible to dewatering. This was corroborated by the Darke County Health District. ODNR was able to confirm that eight Village residents recently had to have their wells replaced by new, deeper wells drilled by Quinter Well Drilling.

ODNR assessed the well construction details, well locations, and the reported or presumed groundwater withdrawal rates of high-capacity wells in the area, including those of the three facilities suspected by Village residents to be responsible for the dewatering of their wells. ODNR also analyzed available data on the area's aquifers to determine their hydrogeologic characteristics and expected groundwater yields. This data was utilized to make preliminary estimations of the Village residents' well drawdowns that would be expected to result from the abovementioned three facilities' individual withdrawals.

Based on this preliminary assessment, the dewatering of these water wells in the Village of New Weston was likely caused by the recent pumping of a new well drilled immediately adjacent to the Village by Gelhaus AG, LLC on June 8, 2023 (ODNR well log #3008273). The other two facilities suspected by Village residents (Eldora Speedway, Inc. and CLR Eggs, LLC – located 1.4 and 2.3 miles from the Village respectively) were unlikely to be related to the dewatering of wells in the Village due to the amount of their withdrawals, their distance from the Village, and their proximity to the Wabash River, which may act as a partial hydrologic boundary.

These conclusions should be considered estimations based on available data and the absence of field confirmation. An assessment of the cumulative effects of all ground water withdrawals in the region is outside the scope of this preliminary review. If deemed necessary, local officials may make a written request to the Chief of the ODNR Division of Water Resources pursuant to Ohio Revised Code 1521.03(E) to hold a meeting or public hearing, whichever is considered appropriate by the Chief, to assist in the resolution of conflicts between ground water users. If you have any questions about this preliminary review, please contact Craig Nelson, the ODNR Division of Geological Survey's Groundwater Program Supervisor at Craig.Nelson@dnr.ohio.gov.

Sincerely,



Brad Lodge, Program Manager
Water Inventory and Planning Program
ODNR Division of Water Resources

cc: Ginger Magoto, Darke County Health District, 300 Garst Avenue, Greenville, OH 45331
Quinter Well Drilling, 29 Mill Street, Burkettsville, OH 45310

Appendix B. Darke County General Health District Written Request



Darke County General Health District

Jordan Francis, MPH, Health Commissioner

Contributing to a Stronger, Healthier Community

September 20, 2023

Division of Water Resources
Dena C. Barnhouse, P.E., Chief
2045 Morse Road
Building B-3
Columbus, OH 43229

Subject: Ground Water Conflict Resolution Request
City/Village: Village of New Weston, Ohio
Township: Allen
County: Darke

Dear Chief Barnhouse,

This letter serves as our written request on behalf of the Darke County General Health District's Board of Health to the Chief of the ODNR Division of Water Resources to hold a meeting or public hearing to assist in the resolution of a conflict between ground water users in the Village of New Weston, Ohio, pursuant to Ohio Revised Code 1521.03(E).

Please see the attached letter summarizing the preliminary review of the New Weston ground water conflict completed by the Ohio Department of Natural Resources. To date, the New Weston Village and surrounding area have had fifteen wells dewatered, five additional wells had to have the pump lowered, and at least seven more residences are experiencing water shortages.

Please let us know if facilitating a meeting or public hearing in partnership with the Division of Water Resources is a possibility. If you have any questions, please call the office of the Health Commissioner at (937) 548-4196 ext. 201.

Sincerely,

Jordan Francis, MPH
Health Commissioner

Attachment

300 Garst Avenue Greenville, OH 45331
Telephone: 937-548-4196
Environmental Fax: 937-548-9654
Nursing Fax: 937-548-9128

Website: www.darkecountyhealth.org
Email: darkecohd@darkecountyhealth.org



Appendix C. ODNR-DWR Response Letter



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Division of Water Resources

Dena C. Barnhouse, Chief

2045 Morse Road/Building B-3

Columbus, Ohio 43229

614-265-6620

water@dnr.ohio.gov

October 5, 2023

Darke County General Health District
Jordan Francis, MPH, Health Commissioner
300 Garst Avenue
Greenville, OH 45331

RE: **Request to Assist in Resolution of Conflict between Ground Water Users**

Requester: Board of Health of the Darke County General Health District

City/Village: Village of New Weston, Ohio

Township: Allen

County: Darke

Dear Health Commissioner Francis:

The Ohio Department of Natural Resources (ODNR) Division of Water Resources has received the attached written request from the Board of Health of the Darke County General Health District requesting that I hold a meeting or public hearing to assist in the resolution of a conflict between ground water users in the Village of New Weston, Ohio, pursuant to Ohio Revised Code 1521.03(E).

Accordingly, I shall hold a meeting to present the available technical information relevant to the conflict and the ground water resource, and issue a report about the use of the ground water resource. ODNR will proceed to collect the technical information, prepare the report, and coordinate with your office to facilitate a time and place for the meeting.

If you have any questions about the process moving forward, please contact Brad Lodge, Water Inventory and Planning Program Manager in the ODNR Division of Water Resources, at Bradley.Lodge@dnr.ohio.gov.

Sincerely,

A handwritten signature in blue ink that reads "Dena C. Barnhouse".

Dena C. Barnhouse, P.E., Chief
ODNR Division of Water Resources

Appendix D. Reported Water Facility Withdrawals

Reported Withdrawals CLR Eggs, LLC	
Year	2024
Total	57.72 MG (million gallons)
January	4.81
February	4.81
March	4.81
April	4.81
May	4.81
June	4.81
July	4.81
August	4.81
September	4.81
October	4.81
November	4.81
December	4.81

Reported Withdrawals CLR Eggs, LLC	
Year	2023
Total	34.80 MG (million gallons)
January	2.9
February	2.87
March	2.87
April	2.87
May	2.9
June	2.9
July	2.93
August	2.93
September	2.93
October	2.9
November	2.9
December	2.9

Reported Withdrawals CLR Eggs, LLC	
Year	2022
Total	27.69 MG (million gallons)
January	1.52
February	1.52
March	1.82
April	2.42
May	2.42
June	2.57
July	2.72
August	2.72
September	2.57
October	2.42
November	2.42
December	2.57

Reported Withdrawals Gelhaus Ag, LLC	
Year	2024
Total	3.21 MG (million gallons)
January	0
February	0
March	0
April	0
May	0
June	0.53
July	1.01
August	1.35
September	0.32
October	0
November	0
December	0

Reported Withdrawals Gelhaus Ag, LLC	
Year	2023
Total	3.89 MG (million gallons)
January	0
February	0
March	0
April	0
May	0
June	0
July	1.30
August	1.55
September	1.04
October	0
November	0
December	0

Appendix E. New Weston Field Measurements

Well Log Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Depth to Water (feet) 10/18/2023	Depth to Water (feet) 11/07/2023	Depth to Water (feet) 12/14/2023	Depth to Water (feet) 01/31/2024	Depth to Water (feet) 02/29/2024	Depth to Water (feet) 03/28/2024	Depth to Water (feet) 04/25/2024	Depth to Water (feet) 06/03/2024	Depth to Water (feet) 06/13/2024	Depth to Water (feet) 07/01/2024	Depth to Water (feet) 08/06/2024	Depth to Water (feet) 09/04/2024	Depth to Water (feet) 10/03/2024	Depth to Water (feet) 11/05/2024	Depth to Water (feet) 12/18/2024	Casing stick up (feet)
3001589	40.350702	-84.634927	25.72	25.85	-	-	-	-	-	-	27.42	27.67	29.61	31.51	28.23	27.63	27.55	3
3009133	40.329804	-84.637394	47.51	47.8	47.61	48.41	47.51	47.15	46.91	47.17	48.3	50.59	55.08	58.26	50.12	49.43	49.81	2
3009132	40.337688	-84.645352	47.97	49.25	-	-	-	-	-	-	-	-	-	-	-	-	-	2
3009319	40.33792	-84.64412	49.79	50.95	49.58	51.93	49.51	49.44	48.84	49.29	51.02	52.67	60.26	66.62	52.57	51.91	51.79	2
3008944	40.33671	-84.64468	51.57	52.83	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8
3009073	40.33862	-84.64305	46.26	47.31	-	-	-	-	-	-	-	-	-	-	-	-	-	2
3007473	40.33875	-84.64232	45.85	46.9	45.68	47.85	45.73	45.55	45.04	45.47	47.26	48.73	57.33	65.75	48.7	48.01	47.87	2
843444	40.338293	-84.639553	39.35	40.03	-	-	-	-	-	-	-	-	-	-	-	-	-	1
3009355	40.33781	-84.64287	48.91	50	-	-	-	-	-	-	-	-	-	-	-	-	-	2
3009403	40.33868	-84.64473	46.08	46.27	-	-	-	-	-	-	-	-	-	-	-	-	-	2
3009402	40.33377	-84.63525	39.31	39.85	-	-	-	-	-	-	-	-	-	-	-	-	-	2
2021431	40.31883	-84.63554	-	45.03	-	-	-	-	-	-	-	-	-	-	-	-	-	2
2058875	40.31946	-84.63337	-	46.8	-	-	-	-	-	-	-	-	-	-	-	-	-	2
320387	40.33821	-84.644326	48.53	49.71	-	-	-	-	-	-	-	-	-	-	-	-	-	2
2063870	40.3378	-84.63208	41.91	39.48	-	-	-	-	-	-	37.4	39.95	45.91	51.72	39.47	40.41	38.55	2
833496	40.337306	-84.640812	-	40.81	-	-	-	-	-	-	-	-	-	-	-	-	-	2
2075790	40.337171	-84.648141	-	47.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-
840359	40.341296	-84.653223	-	51.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix F. Eldora Speedway, Inc. 2024 Schedule of Events



2024 Schedule of Events

*As of 12/04/23 *Subject to change/additions

Sunday, April 7		71 ST SEASON OPENER & SOLAR ECLIPSE Sunday - Super Stocks Monday - Solar Eclipse	
Saturday, April 27		43 RD DTWC FOR MODIFIEDS & SUPER STOCKS \$10,000-to-win Modifieds & \$1,500-to-win Super Stocks	
Fri. & Sat., May 3 - 4		#LETSRACETWO DOUBLEHEADER WEEKEND Friday - World of Outlaws NOS [®] Energy Drink Sprint Cars & USAC AMSOIL National Sprints Saturday - World of Outlaws NOS [®] Energy Drink Sprint Cars & USAC AMSOIL National Sprints	 
Saturday, May 18		\$10 FAMILY FIREWORKS NIGHT presented by Casey's USAC Midwest Thunder Speed2 Midgets, UMP Modifieds, Super Stocks, & FIREWORKS!	
Wednesday, June 5		FLORACING NIGHT IN AMERICA \$20,000-to-win DIRTcar Late Models	
Thurs. - Sat., June 6 - 8		\$100,030-TO-WIN DIRT LATE MODEL DREAM [®] WEEK (30th Running) Thursday - \$25,000-to-win DLM Dream Night 1 Friday - \$25,000-to-win DLM Dream Night 2 Saturday - Heat Races, B-Features, and the 100-lap 30th DIRT LATE MODEL DREAM	
Wednesday, July 17		DOUBLE DOWN DUELS \$12,000-to-win each High Limit Racing Winged Sprint Cars	
Thursday, July 18		JOKER'S JACKPOT \$100,000-to-win High Limit Racing Winged Sprint Cars	
Friday, July 19		THE KNIGHT BEFORE \$25,000-to-win World of Outlaws NOS [®] Energy Drink Sprints	
Saturday, July 20		\$175,000-TO-WIN KINGS ROYAL [®] (41st Running) 41st KINGS ROYAL paying \$175,000-to-win World of Outlaws NOS [®] Energy Drink Sprints	
Saturday, August 3		\$10 Family FIREWORKS Night presented by Casey's Great Lakes Super Sprints, UMP Modifieds, Super Stocks, & FIREWORKS!	
Sunday, September 1		BALTES CLASSIC presented by Coors Light (16th Running) \$5,000-to-win American Iron Man Late Models plus UMP Modifieds & Super Stocks	
Thurs. - Sat., Sept. 5 - 7		\$57,000-TO-WIN WORLD 100 [®] WEEK (54th Running) Thursday - \$12,000-to-win Twin 25 Lap Features Friday - \$12,000-to-win Twin 25 Lap Features Saturday - Heat Races, B-Features, and the 100-lap 54th World 100	
Fri. & Sat., Sept. 20 - 21		4-CROWN NATIONALS WEEKEND presented by NKTELCO (42nd Running) Friday - High Limit Racing Winged Sprint Cars, USAC NOS [®] Energy Drink National Midgets, Silver Crown qualifying Saturday - USAC NOS [®] Energy Drink National Midgets, USAC AMSOIL National Sprint Cars, USAC Silver Crown, & High Limit Racing Winged Sprint Cars (\$15,000-to-win each)	
Thurs. - Sat., Oct. 17 - 19		\$100,000-TO-WIN DIRT TRACK WORLD CHAMPIONSHIP WEEK (44th Running) Thursday - Modifieds & Super Stocks Friday - Lucas Oil Late Models, Steel Block Late Models, & \$5,000-to-win Modifieds Saturday - 44th DTWC paying \$100,000-to-win plus \$5,000-to-win Steel Block Late Models	

Races scheduled in April, late Sept., & Oct. will be flex scheduled in an effort to maximize both the comfort of our fans and track conditions. Final gate, event, & starting schedules will be posted on EldoraSpeedway.com the week of the event after consultation with Eldora's official meteorological service. Rain date for the major events is always the next clear and race-able day(s). In the event of weather cancellation, ticket holder will receive account credit worth face value of the ticket. Account credit does not expire and may be placed towards the purchase of any future Eldora Speedway event ticket. NO REFUNDS OR EXCHANGES.

To purchase tickets, please visit: EldoraSpeedway.com

Appendix G. CLR Eggs, LLC Well Logs

WELL LOG AND DRILLING REPORT

DNR 7802.05e

Ohio Department of Natural Resources
 Division of Geological Survey, 2045 Morse Road, Columbus, Ohio 43229-6605
 Phone (614) 265-6576

Well Log Number

3015801

Page 1 of 2 for this record.

WELL LOCATION	CONSTRUCTION DETAILS																																			
County <u>DARKE</u> Township <u>ALLEN</u> Owner/Builder <u>CLR EGGS LLC</u> <u>13250 SR 118</u> Address of Well Location City <u>ROSSBURG</u> Zip Code +4 <u>45362</u> Permit No. _____ Section; _____ and/or Lot No. _____ Use of Well <u>AGRIC/IRRIG</u> Coordinates of Well (Use only one of the below coordinate systems) Latitude, Longitude Coordinates Latitude: <u>40.30462</u> Longitude: <u>-84.64411</u> Elevation of Well in feet: <u>1045</u> +/- _____ ft. Datum Plane: <input type="checkbox"/> NAD27 <input type="checkbox"/> NAD83 Elevation Source <u>DIGITAL MAP</u> Source of Coordinates: <u>GPS</u> Well location written description: <u>2/10 mile south of McFeeley-Petry Rd on the west side of St Rt 118.</u>	Drilling Method: <u>ROTARY</u> BOREHOLE/CASING (Measured from ground surface) 1 { Borehole Diameter <u>9.75</u> inches Depth <u>85</u> ft. Casing Diameter <u>6</u> in. Length <u>85</u> ft. Thickness <u>0.316</u> in. 2 { Borehole Diameter <u>5.75</u> inches Depth <u>340</u> ft. Casing Diameter _____ in. Length _____ ft. Thickness _____ in. Casing Height Above Ground <u>2.5</u> ft. Type { 1: <u>PVC</u> 2: _____ Joints { 1: <u>SOLVENT</u> 2: _____ SCREEN Diameter _____ in. Slot Size _____ in. Screen Length _____ ft. Type _____ Material _____ Set Between _____ ft. and _____ ft. GRAVEL PACK (Filter Pack) Material/Size _____ Vol/Wt. Used _____ Method of Installation _____ Depth: Placed From: _____ ft. To: _____ ft. GROUT Material <u>BENTONITE SLURRY</u> Vol/Wt. Used <u>192GALS/400LBS</u> Method of Installation <u>PUMPED WITH TREMIE PIPE</u> Depth: Placed From: <u>0</u> ft. To: <u>85</u> ft.																																			
Comments on water quality/quantity and well construction: <u>Clear, no odor, good taste. Well yields 130gpm at the bottom.</u>	DRILLING LOG* FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED. <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Color</th> <th>Texture</th> <th>Formation</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>YELLOW</td> <td>SOFT</td> <td>CLAY</td> <td>0</td> <td>13</td> </tr> <tr> <td>GRAY</td> <td>SOFT</td> <td>CLAY</td> <td>13</td> <td>81</td> </tr> <tr> <td>TAN</td> <td></td> <td>LIMESTONE</td> <td>81</td> <td>130</td> </tr> <tr> <td>GRAY</td> <td></td> <td>LIMESTONE</td> <td>130</td> <td>335</td> </tr> <tr> <td>GRAY</td> <td>SHALEY</td> <td>LIMESTONE</td> <td>335</td> <td>340</td> </tr> <tr> <td></td> <td></td> <td>WATER AT</td> <td>85</td> <td>340</td> </tr> </tbody> </table>	Color	Texture	Formation	From	To	YELLOW	SOFT	CLAY	0	13	GRAY	SOFT	CLAY	13	81	TAN		LIMESTONE	81	130	GRAY		LIMESTONE	130	335	GRAY	SHALEY	LIMESTONE	335	340			WATER AT	85	340
Color	Texture	Formation	From	To																																
YELLOW	SOFT	CLAY	0	13																																
GRAY	SOFT	CLAY	13	81																																
TAN		LIMESTONE	81	130																																
GRAY		LIMESTONE	130	335																																
GRAY	SHALEY	LIMESTONE	335	340																																
		WATER AT	85	340																																
WELL TEST * Pre-Pumping Static Level <u>61</u> ft. Date <u>6/24/2024</u> Measured from <u>TOP OF CASING</u> Pumping test method <u>AIR</u> Test Rate <u>125</u> gpm Duration of Test <u>1.5</u> hrs. Feet of Drawdown <u>90</u> ft. Sustainable Yield <u>125</u> gpm *(Attach a copy of the pumping test record, per section 1521.05, ORC) Is Copy Attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Flowing Well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																				
PUMP/PITLESS Type of pump _____ Capacity _____ gpm Pump set at _____ ft. Pitless Type _____ Pump installed by <u>OTHERS</u> I hereby certify the information given is accurate and correct to the best of my knowledge. Drilling Firm <u>QUINTER WELL DRILLING LLC</u> Address <u>29 S MILL ST</u> City, State, Zip <u>BURKETTSTVILLE OH 45310</u> Signed <u>VIKKI QUINTER</u> Date <u>6/25/2024</u> (Filed Electronically)	Aquifer Type (Formation producing the most water.) <u>LIMESTONE</u> Date of Well Completion <u>06/24/2024</u> Total Depth of Well <u>340</u> ft.																																			
ODH Registration Number <u>000064</u> Last Revised on <u>6/25/2024</u>																																				

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
 Distribute copies of this record to Customer, and Local Health Department.

WELL LOG AND DRILLING REPORT

DNR 7802.05e

Ohio Department of Natural Resources
Division of Geological Survey, 2045 Morse Road, Columbus, Ohio 43229-6605
Phone (614) 265-6576

Well Log Number

3019083

Page 1 of 2 for this record.

WELL LOCATION	CONSTRUCTION DETAILS																																													
County <u>DARKE</u> Township <u>ALLEN</u> Owner/Builder <u>CLR EGGS</u> 13250 SR 118 Address of Well Location City <u>ROSSBURG</u> Zip Code +4 <u>45362</u> Permit No. _____ Section; _____ and/or Lot No. _____ Use of Well <u>AGRIC/IRRIG</u> Coordinates of Well (Use only one of the below coordinate systems) Latitude, Longitude Coordinates Latitude: <u>40.30468</u> Longitude: <u>-84.65363</u> Elevation of Well in feet: <u>1045.9</u> +/- _____ ft. Datum Plane: <input type="checkbox"/> NAD27 <input type="checkbox"/> NAD83 Elevation Source <u>DIGITAL MAP</u> Source of Coordinates: <u>GPS</u> Well location written description: _____ Comments on water quality/quantity and well construction: Clear, no odor, good taste. Well yields 150 gpm at the bottom.	Drilling Method: <u>ROTARY</u> BOREHOLE/CASING (Measured from ground surface) 1 { Borehole Diameter <u>9.75</u> inches Depth <u>74</u> ft. Casing Diameter <u>6</u> in. Length <u>74</u> ft. Thickness <u>0.316</u> in. 2 { Borehole Diameter _____ inches Depth _____ ft. Casing Diameter _____ in. Length _____ ft. Thickness _____ in. Casing Height Above Ground <u>3</u> ft. Type { 1: <u>PVC</u> 2: _____ Joints { 1: <u>SOLVENT</u> 2: _____ SCREEN Diameter _____ in. Slot Size _____ in. Screen Length _____ ft. Type _____ Material _____ Set Between _____ ft. and _____ ft. GRAVEL PACK (Filter Pack) Material/Size _____ Vol/Wt. Used _____ Method of Installation _____ Depth: Placed From: _____ ft. To: _____ ft. GROUT Material <u>BENTONITE SLURRY</u> Vol/Wt. Used <u>168GALS/350LBS</u> Method of Installation <u>PUMPED WITH TREMIE PIPE</u> Depth: Placed From: <u>0</u> ft. To: <u>74</u> ft.																																													
	DRILLING LOG*																																													
	FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Color</th> <th style="width: 30%;">Texture</th> <th style="width: 20%;">Formation</th> <th style="width: 10%;">From</th> <th style="width: 10%;">To</th> </tr> </thead> <tbody> <tr> <td>YELLOW</td> <td></td> <td>CLAY</td> <td>0</td> <td>11</td> </tr> <tr> <td>GRAY</td> <td></td> <td>CLAY</td> <td>11</td> <td>63</td> </tr> <tr> <td></td> <td></td> <td>BOULDERS</td> <td>63</td> <td>66</td> </tr> <tr> <td>GRAY</td> <td></td> <td>CLAY</td> <td>66</td> <td>70</td> </tr> <tr> <td>TAN</td> <td></td> <td>LIMESTONE</td> <td>70</td> <td>85</td> </tr> <tr> <td>GRAY</td> <td></td> <td>LIMESTONE</td> <td>85</td> <td>342</td> </tr> <tr> <td></td> <td></td> <td>WATER AT</td> <td>80</td> <td>150</td> </tr> <tr> <td></td> <td></td> <td>WATER AT</td> <td>319</td> <td>320</td> </tr> </tbody> </table>	Color	Texture	Formation	From	To	YELLOW		CLAY	0	11	GRAY		CLAY	11	63			BOULDERS	63	66	GRAY		CLAY	66	70	TAN		LIMESTONE	70	85	GRAY		LIMESTONE	85	342			WATER AT	80	150			WATER AT	319	320
Color	Texture	Formation	From	To																																										
YELLOW		CLAY	0	11																																										
GRAY		CLAY	11	63																																										
		BOULDERS	63	66																																										
GRAY		CLAY	66	70																																										
TAN		LIMESTONE	70	85																																										
GRAY		LIMESTONE	85	342																																										
		WATER AT	80	150																																										
		WATER AT	319	320																																										
WELL TEST *																																														
Pre-Pumping Static Level <u>57</u> ft. Date <u>11/15/2024</u> Measured from <u>TOP OF CASING</u> Pumping test method <u>AIR</u> Test Rate <u>145</u> gpm Duration of Test <u>1.5</u> hrs. Feet of Drawdown <u>50</u> ft. Sustainable Yield <u>145</u> gpm *(Attach a copy of the pumping test record, per section 1521.05, ORC) Is Copy Attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Flowing Well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																														
PUMP/PITLESS																																														
Type of pump _____ Capacity _____ gpm Pump set at _____ ft. Pitless Type _____ Pump installed by <u>OTHERS</u> I hereby certify the information given is accurate and correct to the best of my knowledge. Drilling Firm <u>QUINTER WELL DRILLING LLC</u> Address <u>29 S MILL ST</u> City, State, Zip <u>BURKETTSTVILLE OH 45310</u> Signed <u>VIKKI QUINTER</u> Date <u>11/18/2024</u> (Filed Electronically)	Aquifer Type (Formation producing the most water.) <u>LIMESTONE</u> Date of Well Completion <u>11/15/2024</u> Total Depth of Well <u>342</u> ft.																																													
ODH Registration Number <u>000064</u> Last Revised on <u>11/18/2024</u>																																														

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Department.

Appendix H. Gelhaus Ag, LLC Reported Irrigation Dates

Gelhaus Ag, LLC Reported Irrigation Dates	
Date Irrigation Reportedly Started	Date Irrigation Reportedly Ended
06/16/2024	06/17/2024
06/18/2024	06/23/2024
06/24/2024	06/25/2024
07/07/2024	07/16/2024
07/20/2024	07/22/2024
07/29/2024	08/02/2024
08/04/2024	08/16/2024
08/20/2024	08/28/2024
08/30/2024	09/04/2024
09/05/2024	09/06/2024

Appendix I. Meeting Comments

- "How do we get the pumping from Gelhaus Ag to stop in the future"
- "When it is raining out Gelhaus is still running his watering system. After the corn is done growing and hanging down he still is watering dead corn! He is running the water system at night so no one knows."
- "I had to drop my pump 20+ feet last year in my well to 165 feet. How long before I will have to drop it more? With these big water drillers when will there be no water?"
- "When my pump ran dry I called Mr. Gelhaus at 2 am and asked if he was irrigating and he said yes. I told him my pump went dry and he said he didn't give a [redacted] about nobody in New Weston. He said when his well went dry nobody gave a [redacted] about about him then and he doesn't give a [redacted] about us and hung up on me. Luckily we were able to drop our pump down. It still cost us \$500.00 dollars."
- "6 residents had to drop their well pumps."
- "The day Bill Gelhaus well was drilled due to the runoff of the new well dried my well that day. Quinter well drilling came directly to my house and said my pump was overheating due to running with no water draw due to Gelhaus Ag well drying mine due to draw."
- "They need to stop Gelhaus. He already drained our well once... If they don't stop him it will happen again."
- "I think everyone own the water right. It should go to a couple of persons."
- "This needs to be stopped - he has done enough damage to this town. It [redacted] and you know it. What are we supposed to do go to bed and wonder if we're going to have water or not? I suggest we put a civil suit against the [redacted] and stop him from damaging people's property. This is going on way too long. I say sue him and stop him from irrigating again. I'm not pay to water his [redacted] corn and nobody should have to. The worst part is knowing he knew he was doing and internationally kept doing that's wrong. You can't destroy somebody property on purpose and let him get away with it. Sorry but I had enough."



**Department of
Natural Resources**

ohiodnr.gov