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CREATIVITY BEYOND ENGINEERING

WDNR PROFESSIONALLY ASSURED WETLAND DELINEATION REPORT

Project Name: River Road Lot 2

Project Location: City of Waukesha, Waukesha County, WAKC1375125, T6N/R19E/SEC20.

Prepared For: Bielinski Homes Inc, 1830 Meadow Lane, Suite A, Pewaukee, WI 53072

Prepared By: raSmith, 16745 West Bluemound Road, Suite 200, Brookfield, WI 53005-5938

Date: 5/21/2025

raSmith Project Number: 2255319

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CREATIVITY BEYOND ENGINEERING

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1. INTRODUCTION

The purpose of this delineation was to confirm the presence or lack of wetlands within the 4.74-acre study area boundary. The results and findings of this investigation will help the developer better plan for a multi-family housing development. The study area is located at the intersection of Rapids Trail and River Road in the City of Waukesha, Township 6 North, Range 19 East, Section 20. Parcel number WAKC1375125.

2. STATEMENT OF QUALIFICATIONS

The project area was reviewed and delineated on April 28, 2025, by Ms. Erica Pergande, Senior Wetland Ecologist at raSmith (PWS #3051), with field assistance from Thomas Johns, raSmith Wetland Ecologist. Ms. Pergande is a WDNR Professionally Assured Wetland Delineator with over 20 years of experience supporting public infrastructure, private development, and industrial projects across Wisconsin and the upper Midwest. Her areas of expertise include wetland delineations, regulatory reporting, permit application preparation, compensatory mitigation planning, and floristic quality assessments. She is professionally trained and highly experienced in the application of federal and state wetland delineation protocols, as well as construction site compliance inspections.

3. METHODOLOGY

3.1 Resource Review

Prior to conducting the field investigation, a variety of desktop resources were reviewed to develop a comprehensive understanding of the site and its environmental context. These materials are included in this report and consisted of, but were not limited to, the following:

- USGS Topographic Map (Figure 1A)
- Waukesha County 1-Foot Contour Map (Figure 1B)
- Wisconsin Wetland Inventory (WWI) Map (Figure 2A)
- WDNR Surface Water Data Viewer (SWDV) – LIDAR Map (Figure 2B)
- NRCS Web Soil Survey (Figure 3)
- Historical aerial imagery from multiple years (Figure 4)
- Antecedent Precipitation Tool (APT) results and Palmer Drought Severity Index Report (Appendix A)

Review of these resources provided valuable insight into the site's topography, drainage patterns, mapped wetland boundaries, soil types, surface water features, and historical land use, supporting both pre-field planning and post-field interpretation.

3.2 Site Investigation Procedures

WETLAND BOUNDARY MARKING PROTOCOL

This wetland delineation was conducted in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region

(Version 2.0, 2012). Boundaries of identified wetlands were flagged in the field using pin flags and/or flagging labeled “WETLAND BOUNDARY” to facilitate visual identification and any subsequent survey.

Wetland boundary locations and sample points were recorded using a Trimble Catalyst DA2 GNSS Receiver, providing sub-meter positional accuracy (approximately 30 cm). This GPS data was later integrated into GIS to generate the Wetland Boundary Map.

SAMPLING POINT PROTOCOL

Vegetation Sampling

Vegetation was surveyed using nested circular plots to account for varying plant strata: a 5-foot radius was used for herbaceous species, a 15-foot radius for shrubs, and a 30-foot radius for trees and woody vines. Within each plot, percent cover was visually estimated, and dominant species were determined using the 50/20 Rule and/or the Prevalence Index, as appropriate.

Plant nomenclature and wetland indicator status were based on the National Wetland Plant List (U.S. Army Corps of Engineers, 2020; Version 3.5), available at http://wetlandplants.usace.army.mil. When necessary, regional field guides were consulted to assist in plant identification.

Soil Sampling

Soils were evaluated for hydric characteristics through examination of soil profiles obtained using a Dutch auger. Profiles were excavated to a depth sufficient to confirm or refute the presence of hydric soil indicators. Typically, soil profiles were observed to a depth of 18 to 24 inches below the ground surface to enable: (1) assessment of a sufficient portion of the soil profile to determine the presence or absence of hydric soil features; (2) evaluation of hydrology, including depth to the water table and extent of saturation; and (3) identification of potential disturbances, such as buried horizons or plow layers.

In cases where site conditions prevented excavation to the typical 18–24-inch depth, or where hydric indicators were observed outside of that range, specific justifications are provided. Soil color determinations were made using the Munsell Soil Color Charts (Gretag-Macbeth, 1994). Observed soil characteristics were compared with those described in the Soil Survey of Waukesha County (USDA Web Soil Survey, 2024). Hydric soil indicators were assessed in accordance with both the Regional Supplement to the Corps of Engineers Wetland Delineation Manual and the Field Indicators of Hydric Soils in the United States, Version 9.0 (NRCS, 2020).

Hydrology Assessment

Each sample point was evaluated for indicators of wetland hydrology, including surface inundation or standing water, a visible water table, and/or soil saturation measured from the surface. When observed, these hydrologic indicators were recorded on the corresponding data sheets. To ensure accuracy, soil pits were typically left open for a minimum of 30 minutes prior to measurement, allowing potential water levels to stabilize.

Antecedent precipitation conditions were assessed using the Antecedent Precipitation Tool (APT), which calculated and graphed precipitation data for the three months preceding the field visit. This analysis helped determine whether conditions during that period were "dry," "normal," or "wet." NOAA U.S. Daily Gridded Precipitation Data, along with associated station count data, indicated that the 30-day rolling precipitation totals leading up to the site visit fell within the range of "wetter than normal" based on comparisons with 30-year historical averages. Additionally, the Palmer Drought Severity Index (PDSI) was reviewed and indicated mid-range climatic conditions (between -1.99 and +1.99) at the time of the visit.

Based on an evaluation of both datasets—particularly emphasizing the local WETS station data and APT results—climatic conditions at the time of the site visit were classified as "normal" (see Appendix A). Correspondingly, site hydrology appeared to reflect normal conditions.

4. RESULTS

4.1 Desktop Resource Review

The results of the comprehensive desktop review corroborated the findings of the site investigation. A total of three (3) wetlands (W-1-W-3) were identified and delineated within the study area.

4.1.1 Topography, Slope, and Aspect

USGS 3-m digital elevation data and the 1892, 1934, and 1968 topographic sheets indicate the study area occupies a narrow north-south ridge that grades gently (≈1–2 percent) down toward the Fox River floodplain (Figures 2C, 4, 9). Elevations fall from approximately 800 ft (north end) to 785–790 ft (south end). The land surface therefore has a southerly aspect with local micro-relief created by historic drainage improvements (see § 4.1.2).

4.1.2 Surface Hydrology

- **Fox River floodplain** – South and southwest margins; regional receiving water.
- **Historic tributary** – A sinuous natural drain appears on the 1863 plat and persists through all subsequent mapping.
- **Agricultural drainage ditch** – First depicted on the 1968 USGS topo and mapped by NRCS (1971 Soil Survey). The ditch trends southwest–northeast across the south-central portion and remains the primary surface-water conveyance today.
- **Depressional ponding** – Orthophotos from 2000 onward show recurring spring ponding in two shallow basins that correspond to Wetlands W-2 and W-3.

These features collectively support overbank flooding, shallow groundwater emergence, and perched surface runoff that sustain the three delineated wetlands.

4.1.3 Soils

NRCS Web Soil Survey shows three map units inside the study limits (Table 4-1). Of note, the Warsaw loam that underlies Wetlands W-1 and W-2 is well drained and non-hydric; hydric conditions observed in the field therefore reflect a perched water table and altered surface drainage, not inherent soil morphology. The hydric Palms muck (PA) occupies an elongated depression in the flood-plain interior—corresponding to Wetland W-3—while the adjacent

lower side-slopes are mapped as somewhat-poorly-drained Lorenzo loam (LyC2) and the flood-plain flats as well-drained, non-hydric Warsaw loam (WeB).

Table 4-1. Mapped Soils and Hydric Status

Map Unit	Series / Description	Drainage Class*	Hydric Rating†	Landscape Position
WeB	Warsaw loam, 0 – 6 % slopes	Well drained	0 % hydric	Flood-plain flats and gentle risers (W-1, W-2)
LyC2	Lorenzo loam, 6 – 12 % slopes, eroded	Somewhat poorly drained	25 % hydric inclusions	Lower side-slopes (margin of W-3)
Pa	Palms muck, 0 – 2 % slopes, eroded	Hydric	100 % hydric	Depressional basins and swales within the flood-plain interior (core of W-3)

* NRCS Official Series Descriptions

† NRCS Hydric Soils List (WI, 2025)

4.1.4 Wetland Inventory and Classification

The WDNR Surface Water Data Viewer (SWDV) shows one Wisconsin Wetland Inventory (WWI) polygon within the northwest corner, coded **E2K** (freshwater shallow marsh). Historic drainage work has altered the original extent; field delineation refined the boundary to the current Wetland W-1. No WDNR-mapped waterways or Areas of Special Natural Resource Interest (ASNRI) intersect the site.

4.1.5 Historic Land Use Summary

Time-frame	Key observations	Source Figures
Pre-1890's	Broad wet prairie flanking a natural tributary; no ditches or roads	1863 GLO plat & township sketch
1890–1945	Conversion to row-crop agriculture; ridge cultivated; floodplain intermittently wet	1892 & 1934 USGS topos; 1937 USDA aerial; 1945 Bordner Survey
1945–1968	Enlargement of agricultural ditch; intensified drainage to support cropping	1956 & 1963 aerials; 1968 USGS topo (Figs 7–9)

1970–1995	Continued farming; initial suburban grading visible 1990–1995	County GIS orthophotos & plats (Figs 10–13)
2000–2015	Residential build-out surrounding site; depressional ponding evident	2000–2015 aerials & GIS (Figs 14–18)

*Historic disturbance explains why Wetlands W-2 and W-3 exhibit anthropogenic boundaries and altered hydrology, while Wetland W-1 retains characteristics of a wet meadow/shallow marsh.

4.1.6 Desktop Conclusions

The desktop resources corroborate the field investigation. Although mapped as non-hydric Warsaw loam, soil profiles within W-1 and W-2 meet hydric criteria due to artificially elevated groundwater and surface-runoff impoundment. No additional WWI wetlands, waterways, or ASNRI features occur within the study limits.

These findings guided the placement of data points and flagging during the on-site delineation (see Section 4.2).

4.2 Field Investigation

WETLAND W-1:

- **Type:** Emergent Meadow (PEM) wetland, dominated by invasive herbaceous vegetation (rcg), consistent with a seasonally saturated low quality wet meadow community.
- **Size:** Approximately 2,350 square feet.
- **Position (Landscape Context & Connectivity):**
  Located within a shallow swale that appears to have artificial origins from previous disturbance/stormwater management. Surrounding land use includes old fields and residential development.
- **Dominant Vegetation (By Stratum):**
  - Herbaceous Layer: *Phalaris arundinacea – FACW & Poa pratensis – FACU*
  - Shrub Layer: *Apocynum cannabinum* – FAC
  - Tree Layer: Not present
- **Hydric Soil Indicators:** *F6 – Redox Dark Surface*
  Soils exhibited a dark matrix color (10YR 3/2) & N 2.5/ with 5% redox concentrations as soft masses within the upper 12 inches.
- **Hydrology Indicators:** A2 – High Water Table, A3 – Saturation & D2 – Geomorphic Position.
  Evidence of wetland hydrology was supported by a high-water table and saturation with 12 inches as well as concave depressional landform. No standing water was observed at the time of the visit, though saturated conditions were present at the soil surface.
- **Data Points:** DP 3-UPL & DP 4-WET

WETLAND W-2:

- **Type:** Emergent Meadow (PEM) wetland, dominated by invasive herbaceous vegetation (rcg), consistent with a seasonally saturated low quality wet meadow community.
- **Size:** Approximately 3,366 square feet.
- **Position (Landscape Context & Connectivity):**
  Located within a depression that appears to have artificial origins from previous disturbance and/or stormwater management. Surrounding land use includes old fields and residential development.
- **Dominant Vegetation (By Stratum):**
  - Herbaceous Layer: *Phalaris arundinacea – FACW & Carex scoparia – FACW*
  - Shrub Layer: Not present
  - Tree Layer: Not present
- **Hydric Soil Indicators:** *F6 – Redox Dark Surface*
  Soils exhibited a dark matrix color (10YR 3/2) & N 2.5/ with 5% redox concentrations as soft masses within the upper 12 inches.
- **Hydrology Indicators:** A2 – High Water Table, A3 – Saturation, D2 – Geomorphic Position & D5 – FAC-Neutral Test.
  Evidence of wetland hydrology was supported by a high-water table and saturation at the surface within a concave depressional landform. Standing water was observed a few feet away from the data point at the time of the visit.
- **Data Points:** DP 5-UPL & DP 6-WET

WETLAND W-3:

- **Type:** Both Forested (Palustrine) and Emergent (Palustrine) wetland characteristics were observed by the dominance of both herbaceous and woody vegetation, consistent with these communities.
- **Size:** Approximately 0.28 acres 12,200 square feet-wetland extends outside of study area.
- **Position (Landscape Context & Connectivity):**
  Located within a low-lying topographic position adjacent to a shallow swale that drains seasonally toward an unnamed tributary approximately 400 feet to the southeast. The wetland is part of a fragmented wetland complex with intermittent surface connectivity via overland flow during periods of high precipitation. Surrounding land use includes agricultural fields and residential development.
- **Dominant Vegetation (By Stratum):**
  - Herbaceous Layer: *Alliaria petiolata (FACU) dominant, Urtica dioica (FAC) present.*
  - Shrub Layer: *Rhamnus cathartica (FAC)* dominant*, Lonicera morrowii (FACU)* present.
  - Tree Layer: *Acer negundo (FAC)* dominant.
- **Hydric Soil Indicators:** *A12 - Thick Dark Surface.*
  Soils exhibited 0-12 inches of a dark matrix color (7.5YR 2.5/1) sandy loam underlain by 12-24 inches: Mucky loam/clay with redox features.
- **Hydrology Indicators:** *B9 – Water-Stained Leaves & D2 – Geomorphic Position*
  Evidence of wetland hydrology was supported by water-stained leaves and position

within a concave landform receiving overland flow. No standing water was observed at the time of the visit, though saturated conditions were observed at 12 inches in the soil pit.

- **Data Points:** DP 1-WET & DP 7-UPL

SURROUNDING UPLANDS

Surrounding uplands were dominated primarily by turf grass (*Poa pratensis, FACU*), smooth brome (*Bromus inermis – UPL*), fescue (*Festuca rubra – FACU*) and ruderal species (*Leonurus cardiaca – UPL)*, (*Plantago rugelii – FACU)*, (*Daucus carota – UPL*) with well-drained soils lacking hydric indicators. These areas were topographically elevated at least 1–2 feet above the wetland boundary.

5. CONCLUSION

The procedures described in this report and the field methods used constitute an official wetland delineation in accordance with the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual and applicable Regional Supplement. This report also follows the reporting standards and submittal procedures defined in the 2015 Wisconsin Department of Natural Resources Guidance for Submittal of Delineation Reports to the St. Paul District Corps of Engineers and the Wisconsin Department of Natural Resources.
The field delineation was completed by Erica N. Pergande (PWS # 5091). The methodology meets the standards and criteria described in the manual and conforms to the applicable and current standards and regulations at the time the fieldwork was completed. The results reflect the conditions present at the time of the delineation.

6. REGULATORY

Wetlands in the project area are regulated by agencies at the local, state, and federal levels including the USACE and the EPA at the federal level, and the WDNR at the state level. Construction plans that propose any direct alteration or indirect impact to wetlands, water courses, or aquatic resources within the project area may require permits from the appropriate regulatory agencies. Violation of wetland regulations can result in substantial civil and/or criminal penalties.

Wetland Protective Area Requirements NR 151 .12(5)(c)

NR 151 is part of Wisconsin's Runoff Management Administrative Code, which establishes minimum performance standards for stormwater management in post-construction development. Section NR 151.12(5)(c) specifically addresses "protective areas", also referred to as vegetated buffer zones, that must be maintained adjacent to water resources — including wetlands.

Wetland Type	*Required Buffer*
Highly susceptible wetlands (e.g., calcareous fens, sedge meadows, bogs, marshes)	50 feet
All wetlands ≥ 2 acres	25 feet
All wetlands < 2 acres	10 feet
Wetlands adjacent to lakes, rivers, or streams	50 feet

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Figures

Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

Study Area

Figure 1A
USGS Site Location Map

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0 200 400
1-inch equals 376-feet

Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

- Study Area
- Intermediate Contour (1-foot)
- Index Contour (5-foot)

World Imagery: SEWRPC, Maxar, Microsoft
World Transportation: Esri, HERE, iPC

Figure 1B
County 1-foot Contour Map

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0 30 60
1-inch equals 60-feet

Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

- Study Area
- Wisconsin Wetland Inventory
- Maximum Extent Wetland Indicators

WiDNR Surface Water Data Viewer
World Imagery: SEWRPC, Maxar, Microsoft
World Transportation: Esri, HERE, iPC

Figure 2A
Wisconsin Wetland Inventory Map

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1-inch equals 60-feet

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Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

Study Area

World Transportation: Esri, HERE, iPC
RASTER\ORTHO1941:

Figure 4A
1941 Historic Aerials

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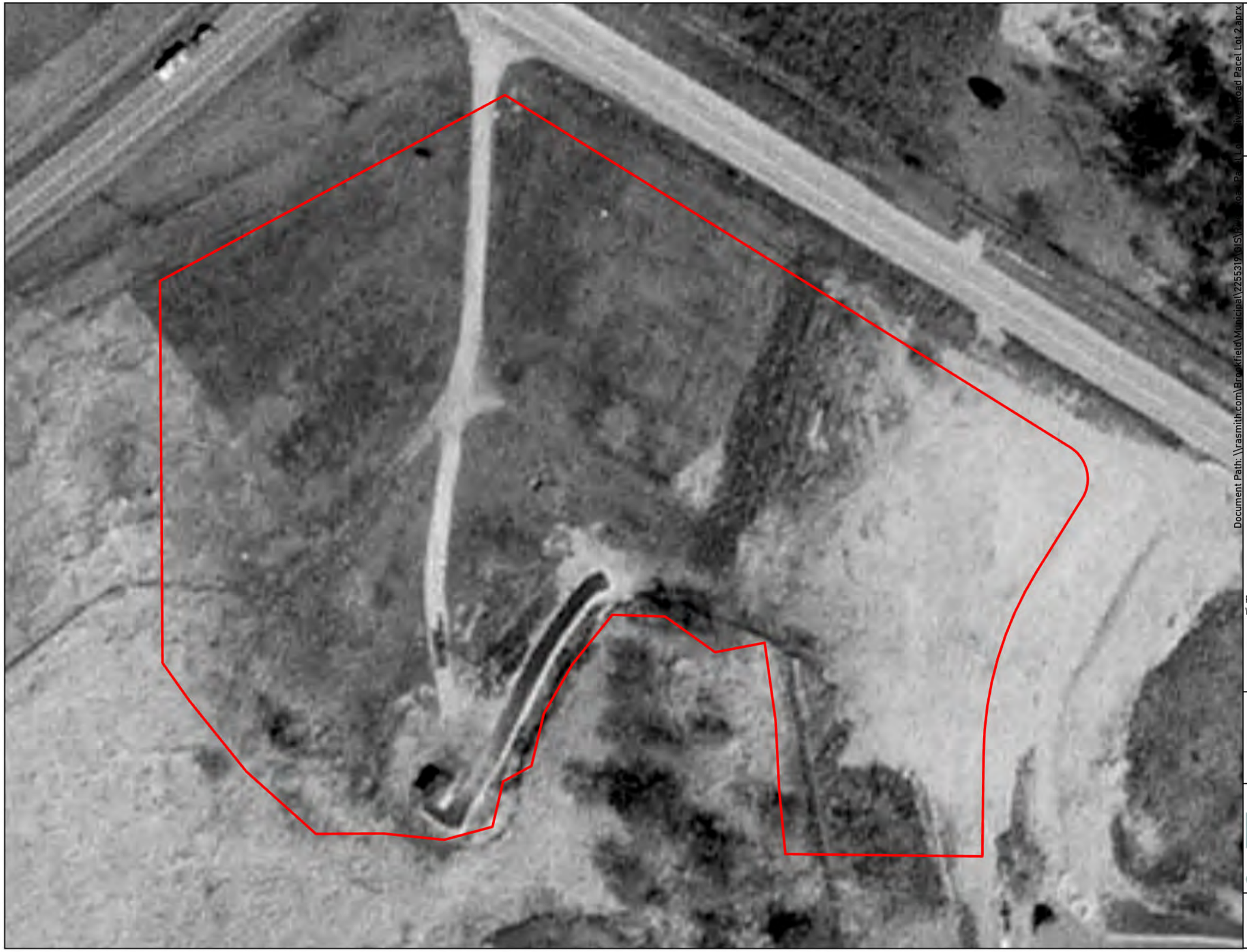
0 30 60
1-inch equals 60-feet



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Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

Study Area

RASTER\ORTHO2000:
World Transportation: Esri, HERE, iPC

Figure 4B
2000 Historic Aerials

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1-inch equals 60-feet

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Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

Study Area (4.74 Acres)

RASTER\ORTHO2005:
World Transportation: Esri, HERE, iPC

Figure 4C
2005 Historic Aerials

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1-inch equals 60-feet

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Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

Study Area (4.74 Acres)

RASTER\ORTHO2010: Waukesha County - Land Information System Division
World Transportation: Esri, HERE, iPC

Figure 4D
2010 Historic Aerials

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0 30 60

1-inch equals 60-feet

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Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

Study Area (4.74 Acres)

RASTER\ORTHO2015:
World Transportation: Esri, HERE, iPC

Figure 4E
2015 Historic Aerials

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0 30 60

1-inch equals 60-feet

Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

Study Area (4.74 Acres)

RASTER\ORTHO2020: WC Land Information Office, WLIP, SEWRPC, Ayres Associates
World Transportation: Esri, HERE, iPC

Figure 4F
2020 Historic Aerials

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0 30 60
1-inch equals 60-feet

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River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

Study Area (4.74 Acres)

RASTER\ORTHO2024: SEWRPC, Waukesha County Land Information Office
World Transportation: Esri, HERE, iPC

Figure 4G
2024 Historic Aerials

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0 30 60
1-inch equals 60-feet

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Bielinski Homes, Inc.
River Road Lot 2
City of Waukesha
Waukesha County, Wisconsin

Map Legend

- Study Area (4.74 Acres)
- Wetland
- Off-Site Wetland
- Sampling Point
- Cursory Point
- Structure Point

World Imagery: SEWRPC, Maxar, Microsoft
World Transportation: Esri, HERE, iPC

Figure 5
Wetland Boundary Map

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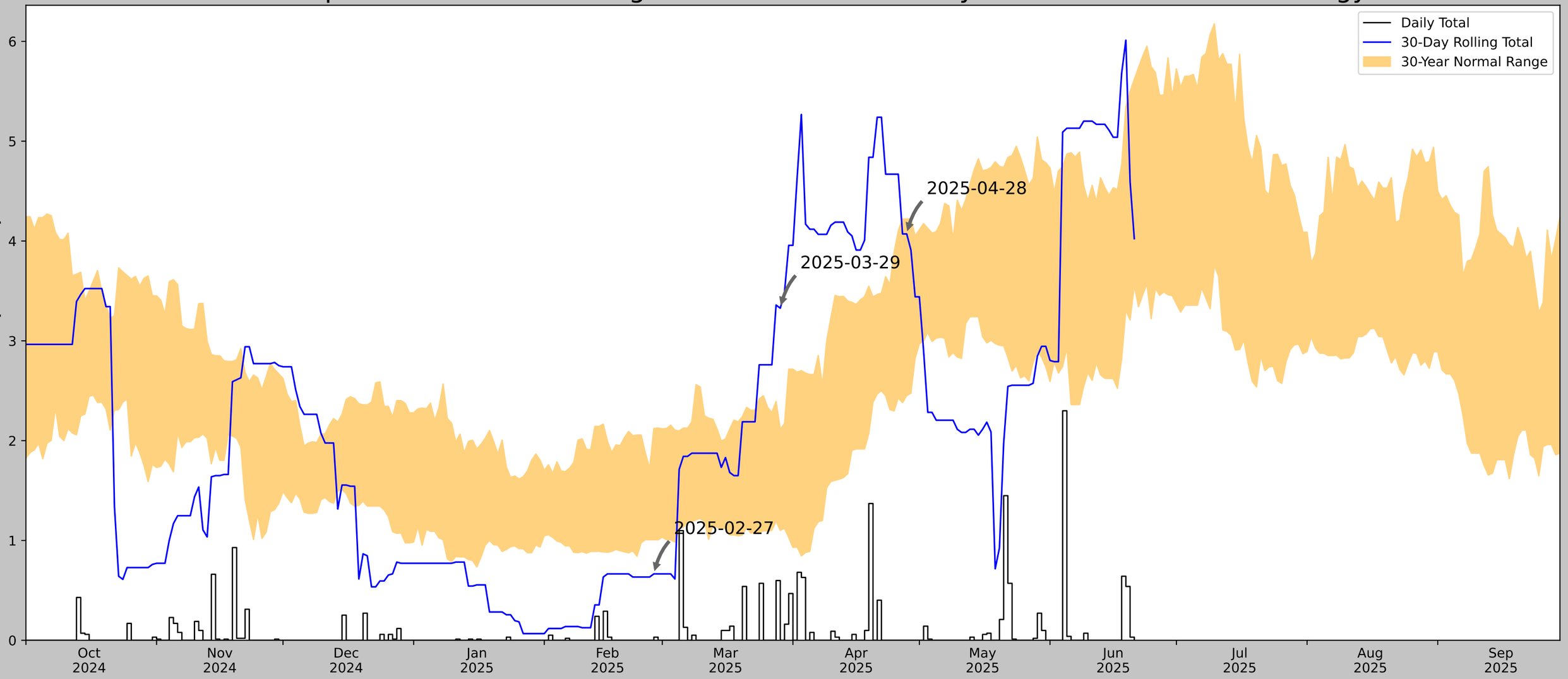
0 30 60
1-inch equals 60-feet

Appendix A -
ATP and Palmer Drought Index Report

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	42.966325, -88.284741
Observation Date	2025-04-28
Elevation (ft)	821.758
Drought Index (PDSI)	Incipient drought
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-04-28	2.450787	4.220473	4.070866	Normal	2	3	6
2025-03-29	1.101575	2.116536	3.326772	Wet	3	2	6
2025-02-27	1.00748	2.122047	0.665354	Dry	1	1	1
Result							Normal Conditions - 13

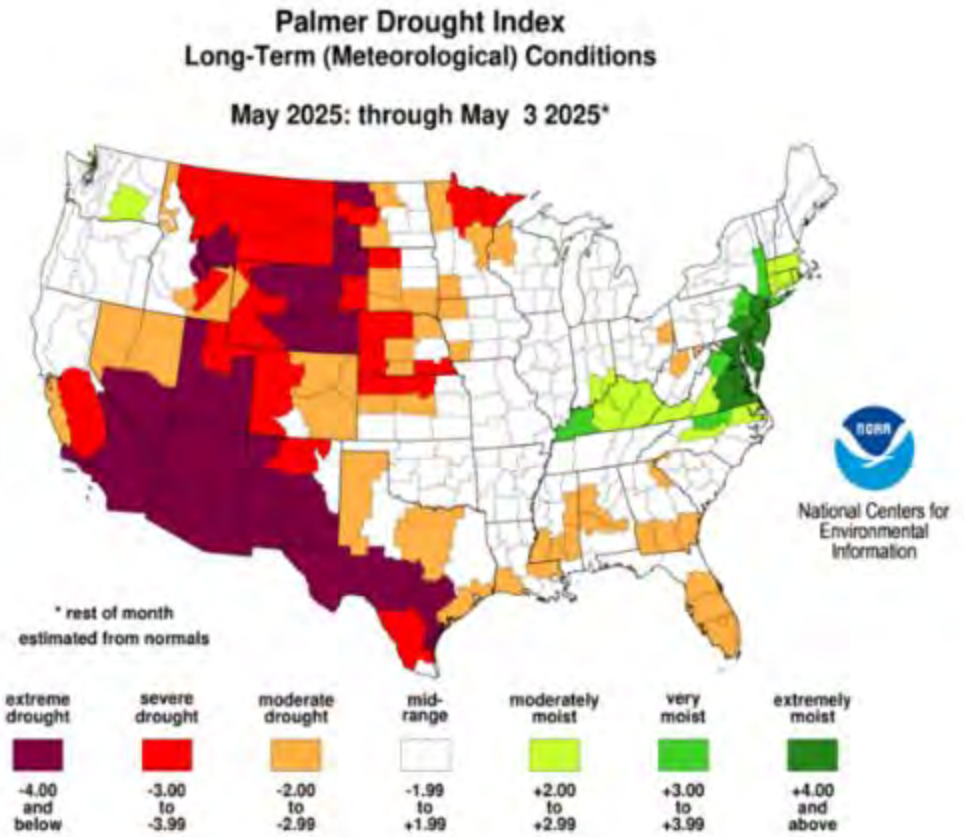
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

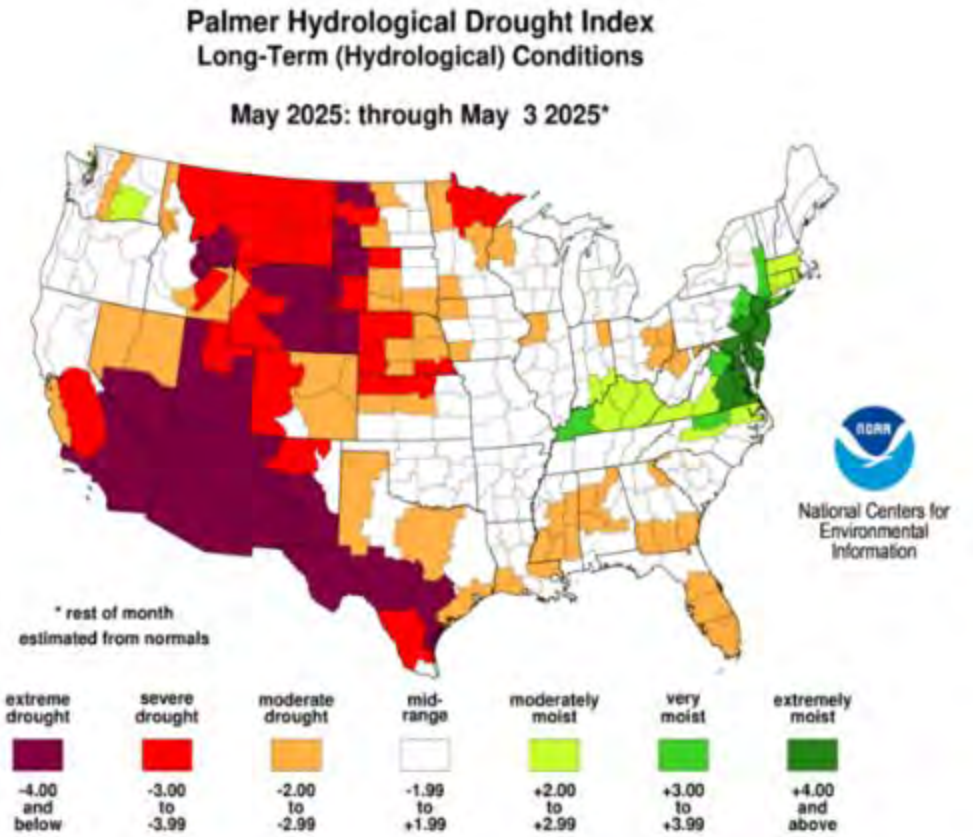
Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
WAUKESHA WWTP	42.9986, -88.2525	801.837	2.762	19.921	1.298	11253	90
WAUKESHA 2.1 SSW	42.9847, -88.2531	816.929	0.961	15.092	0.447	19	0
WAUKESHA 2.5 SE	42.9851, -88.2052	859.908	2.566	58.071	1.304	1	0
WAUKESHA 1.6 NW	43.0287, -88.2609	967.848	2.123	166.011	1.308	15	0
WAUKESHA 1.6 NW	43.0307, -88.2584	979.003	2.238	177.166	1.404	1	0
WAUKESHA 2.0 NNW	43.036, -88.2596	926.837	2.609	125.0	1.5	7	0
BROOKFIELD WWTP	43.0522, -88.1775	830.053	5.298	28.216	2.534	6	0
W ALLIS	42.9981, -88.0242	772.966	11.537	28.871	5.525	44	0
MT MARY COLLEGE	43.0722, -88.0294	714.895	12.362	86.942	6.638	7	0



Palmer Drought Index Data

CSV JSON XML



Palmer Hydrological Drought Index Data

CSV JSON XML

Appendix B -
Wetland Determination Data Forms

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: River Road Lot 2 City/County: City of Waukesha/Waukesha County Sampling Date: 2025-04-28

Applicant/Owner: Bielinski Homes Inc. State: Wisconsin Sampling Point: DP1-WET

Investigator(s): Erica Pergande & TJ Johns Section, Township, Range: S20 T6N R19E

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope %: 0-2

Subregion (LRR or MLRA): A Lat: 42.966325 Long: -88.284741 Datum: WGS 84

Soil Map Unit Name: WeB - Warsaw loam, 2 to 6 percent slopes NWI classification: PFO1/EM1Bg

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔	No ___	If yes, optional Wetland Site ID: W-3
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)

DP is located along the far south edge of the property boundary and is primarily located outside of the study area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✔	Depth (inches): ___
Water Table Present?	Yes ___	No ✔	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 12

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Saturated at 12"

Remarks:

Saturated at 12".

VEGETATION – Use scientific names of plants.

Sampling Point: DP1-WET

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	65	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	65	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rhamnus cathartica	20	✔	FAC
2. Lonicera morrowii	10	✔	FACU
3.			
4.			
5.			
6.			
7.			
	30	=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Alliaria petiolata	70	✔	FACU
2. Urtica dioica	35	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	120	x 3 =	360
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	200 (A)		680 (B)

Prevalence Index = B/A = 3.40

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation passes dominance test.

SOIL

Sampling Point DP1-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 2.5/1	100					Sandy Loam	
12 - 24	N 2.5/0	90	10YR 4/6	10	C	M	Mucky Loam/Clay	
24 - 30	10YR 4/1	95	10YR 4/6	5	C	M	Clay	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**) Thin
- ___ Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Soils meet hydric indicator A12-Thick Dark Surface

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: River Road Lot 2 City/County: City of Waukesha/Waukesha County Sampling Date: 2025-04-28
Applicant/Owner: Bielinski Homes Inc. State: Wisconsin Sampling Point: DP2-UPL
Investigator(s): Erica Pergande & TJ Johns Section, Township, Range: S20 T6N R19E
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope %: 0-2
Subregion (LRR or MLRA): A Lat: 42.96642 Long: -88.284637 Datum: WGS 84
Soil Map Unit Name: WeB - Warsaw loam, 2 to 6 percent slopes NWI classification: PFO1/EM1Bg
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)

DP is located in an upland shrub community.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology was observed.

VEGETATION – Use scientific names of plants. Sampling Point: DP2-UPL

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	45	✔	FAC
2. Populus deltoides	5		FAC
3. Salix nigra	5		OBL
4.			
5.			
6.			
7.			
	55	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rhamnus cathartica	45	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	45	=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Glechoma hederacea	40	✔	FACU
2. Alliaria petiolata	5		FACU
3. Galium aparine	5		FACU
4. Hackelia virginiana	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	155	(A)	510 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Veg passes dominance test.

SOIL Sampling Point DP2-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 10	7.5YR 2.5/1	100					Loamy Sand	Rock and gravel mixed in
11 - 12	10YR 2/2	100					Loamy Sand	Restricted at 12 rock and gravel fill
-								
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**) Thin
- ___ Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✔

Remarks:

restricted at 12" rock and gravel. Soils are disturbed and do not meet any hydric indicators.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: River Road Lot 2 City/County: City of Waukesha/Waukesha County Sampling Date: 2025-04-28

Applicant/Owner: Bielinski Homes Inc. State: Wisconsin Sampling Point: DP3-UPL

Investigator(s): Erica Pergande & TJ Johns Section, Township, Range: S20 T6N R19E

Landform (hillside, terrace, etc.): Hill Local relief (concave, convex, none): Concave Slope %: 3

Subregion (LRR or MLRA): A Lat: 42.96642 Long: -88.17034 Datum: WGS 84

Soil Map Unit Name: Warsaw loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)

Data point is located on an upland hillslope

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology could not be met. DP is located in an upland field.

VEGETATION – Use scientific names of plants. Sampling Point: DP3-UPL

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Bromus inermis	40	✔	UPL
2. Poa pratensis	35	✔	FACU
3. Festuca rubra	25	✔	FACU
4. Trifolium pratense	10		FACU
5. Taraxacum officinale	5		FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	115 =Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	40	x 5 =	200
Column Totals:	115 (A)		500 (B)

Prevalence Index = B/A = 4.34

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation is dominant.

SOIL

Sampling Point DP3-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 13	10YR 3/3	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**) Thin
- ___ Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: rock

Depth (inches): 12

Hydric Soil Present? **Yes** ___ **No** ✔

Remarks:

Soils did not meet any hydric criteria indicators.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: River Road Lot 2 City/County: City of Waukesha/Waukesha County Sampling Date: 2025-04-28

Applicant/Owner: Bielinski Homes Inc. State: Wisconsin Sampling Point: DP4-WET

Investigator(s): Erica Pergande & TJ Johns Section, Township, Range: S20 T6N R19E

Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope %: 0-2

Subregion (LRR or MLRA): L 95 Lat: 42.966588 Long: -88.284358 Datum: WGS 84

Soil Map Unit Name: WeB - Warsaw loam, 2 to 6 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	If yes, optional Wetland Site ID: W-1
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

Excavated swale

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Saturation at the surface.

Remarks:

Wetland hydrology is met.

VEGETATION – Use scientific names of plants. Sampling Point: DP4-WET

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Apocynum cannabinum	30	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30 =Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Phalaris arundinacea	80	✔	FACW
2. Poa pratensis	20	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	30	x 3 =	90
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	130 (A)		330 (B)

Prevalence Index = B/A = 2.53

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation meets hydric criteria.

SOIL

Sampling Point DP4-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 3/2	100					Sand	sand, gravel, rocks mix
2 - 16	N 2.5/0	95	10YR 5/8	5	C	M	Clay Loam	
17 - 24	N 2.5/0	20	10YR 5/8	10	C	M	Clay Loam	
17 - 24	10YR 4/2	70					Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**) Thin
- ___ Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Soils meet F6-Redox Dark Surface.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: River Road Lot 2 City/County: City of Waukesha/Waukesha County Sampling Date: 2025-04-28

Applicant/Owner: Bielinski Homes Inc. State: Wisconsin Sampling Point: DP5-UPL

Investigator(s): Erica Pergande & TJ Johns Section, Township, Range: S20 T6N R19E

Landform (hillside, terrace, etc.): Berm Local relief (concave, convex, none): Convex Slope %: 0-2

Subregion (LRR or MLRA): A Lat: 42.966626 Long: -88.284416 Datum: WGS 84

Soil Map Unit Name: WeB - Warsaw loam, 2 to 6 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)

DP 5-UPL is located in between 2 artificial wetland scrapes/detention areas. Upland berm.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP5-UPL

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Phalaris arundinacea	60	✔	FACW
2. Bromus inermis	30	✔	UPL
3. Poa pratensis	25		FACU
4. Barbarea vulgaris	15		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	130 =Total Cover		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	15	x 3 =	45
FACU species	25	x 4 =	100
UPL species	30	x 5 =	150
Column Totals:	130 (A)		415 (B)

Prevalence Index = B/A = 3.19

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point DP5-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 10	10YR 2/1	100					Sandy Clay Loam	
11 - 24	N 2.5/0	70					Clay Loam	
11 - 24	10YR 4/2	30					Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**) Thin
- ___ Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✔

Remarks:

Soils do not meet any hydric indicators.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: River Road Lot 2 City/County: City of Waukesha/Waukesha County Sampling Date: 2025-04-28

Applicant/Owner: Bielinski Homes Inc. State: Wisconsin Sampling Point: DP6-WET

Investigator(s): Erica Pergande & TJ Johns Section, Township, Range: S20 T6N R19E

Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope %: 0-2

Subregion (LRR or MLRA): A Lat: 42.966674 Long: -88.284451 Datum: WGS 84

Soil Map Unit Name: WeB - Warsaw loam, 2 to 6 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	If yes, optional Wetland Site ID: W-2
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

Data point is located in an excavated depression (potentially for stormwater purposes) dominated by rcg. Standing water was observed adjacent to the data point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology is observed.

VEGETATION – Use scientific names of plants. Sampling Point: DP6-WET

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Phalaris arundinacea	80	✔	FACW
2. Carex scoparia	10		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		180 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✔ **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland vegetation is dominant.

SOIL

Sampling Point DP6-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 3/2	100					Sand	sand, gravel, rocks mix
2 - 16	N 2.5/0	95	10YR 5/8	5	C	M	Clay Loam	
17 - 24	N 2.5/0	20	10YR 5/8	10	C	M	Clay Loam	
17 - 24	10YR 4/2	70					Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**) Thin
- ___ Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Soils meet hydric indicator F6-Redox Dark Surface.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: River Road Lot 2 City/County: City of Waukesha/Waukesha County Sampling Date: 2025-04-28

Applicant/Owner: Bielinski Homes Inc. State: Wisconsin Sampling Point: DP7-UPL

Investigator(s): Erica Pergande & TJ Johns Section, Township, Range: S20 T6N R19E

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope %: 0-2

Subregion (LRR or MLRA): L 95 Lat: 42.96605 Long: -88.285196 Datum: WGS 84

Soil Map Unit Name: Warsaw loam, 2 to 6 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Restrictive layer at 6" rock and gravel fill

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: DP7-UPL

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rhamnus cathartica	20	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	20	=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Leonurus cardiaca	30	✔	UPL
2. Phalaris arundinacea	30	✔	FACW
3. Cirsium arvense	20		FACU
4. Nepeta cataria	10		FACU
5. Arctium minus	5		FACU
6. Galium aparine	5		FACU
7. Pastinaca sativa	5		
8.			
9.			
10.			
11.			
12.			
	105	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	35	x 3 =	105
FACU species	40	x 4 =	160
UPL species	30	x 5 =	150
Column Totals:	135 (A)		475 (B)

Prevalence Index = B/A = 3.51

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Veg passes dominance test with creeping rcg.

SOIL

Sampling Point DP7-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 6	10YR 2/2	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
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- ___ Sandy Mucky Mineral (S1)
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- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

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- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock and gravel

Depth (inches): 6

Hydric Soil Present? **Yes** ___ **No** ✔

Remarks:

Soils are fill and do not meet any hydric indicators.

Appendix C -
Site Photographs

raSmith
CREATIVITY BEYOND ENGINEERING

Site Photos

Photo 1: DP 1 facing south toward offsite wetland (W-3)

Wetland boundary flag (pink) facing DP1-WET (orange flag)

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CREATIVITY BEYOND ENGINEERING

Site Photos

Photo 2:DP2-UPL

Photo 3:DP2-UPL

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CREATIVITY BEYOND ENGINEERING

Site Photos

Photo 4:DP4-WET

Photo 5: Shrub line on south side

Site Photos

Photo 6: W-1

Photo 7:W-2 DP6-WET

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CREATIVITY BEYOND ENGINEERING

Site Photos

Photo 8:Bem between W-2 and W-2 facing south

Photo 9:W-3 on far south edge

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CREATIVITY BEYOND ENGINEERING

Site Photos

Photo 10:Fallow area of site facing west from access road

Photo 11: Upland facing east

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CREATIVITY BEYOND ENGINEERING

Site Photos

Photo 12: DP7-UPL

Photo 13:DP7-UPL facing south

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CREATIVITY BEYOND ENGINEERING

Site Photos

Photo 14:W-3 facing south

Appendix D -

Assured Wetland Delineator 2025 Confirmation Letter

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1027 W. Saint Paul Avenue
Milwaukee WI 53233

Tony Evers, Governor
Karen Hyun, Ph.D., Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

April 1, 2025

Erica Pergande, PWS
raSmith
16745 West Bluemound Road
Brookfield, WI 53005

Subject: 2025 Assured Wetland Delineator Confirmation

Dear Erica Pergande:

This letter provides Wisconsin Department of Natural Resources (WDNR) confirmation for the wetland delineations you conduct during the 2025 growing season. You and your clients will not need to wait for the WDNR to review your wetland delineations before moving forward with project planning. This will help expedite the review process for WDNR's wetland regulatory program. Your name and contact information will continue to be listed on our website at: http://dnr.wi.gov/topic/wetlands/assurance.html.

In the instance where a municipality may require a letter of confirmation for your work prior to moving forward in the local regulatory process, this letter shall serve as that confirmation. Although your wetland delineations do not require WDNR field review, inclusion of a Wetland Delineation Report is required for projects needing State authorized wetland, waterway and/or storm water permit approvals.

To comply with Chapter 23.321, State Statutes, please supply the department with a polygon shapefile of the wetland boundaries delineated within the project area. Please do not include data such as parcel boundaries, project limits, wetland graphic representation symbols, etc. If internal upland polygons are found within a wetland polygon, then please label as UPLAND. The shapefile should utilize a State Plane Projection and be overlain onto recent aerial photography. If a different projection system is used, please indicate in which system the data are projected. In the correspondence sent with the shapefile, please supply a brief description of each wetland's plant community (eg: wet meadow, floodplain forest, etc.). Please send these data to Calvin Lawrence (608-266-0756 or email at calvin.lawrence@wisconsin.gov).

If you or any client has a question regarding your status in the Wetland Delineation Professional Assurance Program, contact me by email at kara.brooks@wisconsin.gov or phone at 414-308-6780. Thank you for all your hard work and best wishes for the upcoming field season.

Sincerely,

Kara Brooks
Wetland Identification Coordinator
Bureau of Watershed Management

Appendix E -

Wetland Delineation Confirmation Request Checklist

Wetland Delineation Confirmation Request Check List

WDNR Wetland Identification Program

The following is the preferred order for all information provided in wetland delineation reports submitted for wetland confirmation. Please include this completed checklist with all wetland delineation report submittals. All of the following must be included with all wetland delineation reports that are submitted for confirmation:

☑ Basic Report Components (check to make sure these are in the report)

☑ Introductory Section
- Why the delineation was undertaken
- Date the field work was completed
- Who conducted field work
- Qualifications

☑ Methods used during the wetland delineation
- Description of methods
- Sources Reviewed (WWI mapping, Soil Survey, etc.)
- Description of any site specific agency guidance (site meetings, etc.)

☑ Results and Discussion
- Antecedent hydrologic condition analysis
- Previous wetland delineation mapping
- Existing environmental mapping (WWI mapping, Soil survey, etc.)
- Amount and types of wetland located within the project area
- Discussion explaining how the wetland/upland boundary was differentiated
- Disturbed and problematic areas encountered during the delineation
- Other water resources located in the project area (navigable streams, etc.)

☑ Topographic mapping (Include map scale, clearly identified review area, a north arrow)

☑ WWI mapping (Include map scale, clearly identified review area, a north arrow)

☑ Soil Survey mapping (Include map scale, clearly identified review area, a north arrow)

☑ Wetland Delineation Map showing an accurate depiction of wetland boundaries and data points identified during field investigation (Include map scale, clearly identified review area, a north arrow)

☑ Complete, legible wetland delineation data forms from the appropriate regional supplement

☑ Site photos

☑ Any previous delineation information

☑ Areas that are currently, or were recently (less than three years prior to the delineation) under agricultural production must include a Farm Service Agency (FSA) Slide Review. All FSA Slide Reviews should include the following:
- Copies or photos of slides if available
- A completed wetland documentation form (NRCS form NRCS-CPA-32W)
- A copy of the draft NRCS Wetland Inventory map if available

☑ Literature Cited