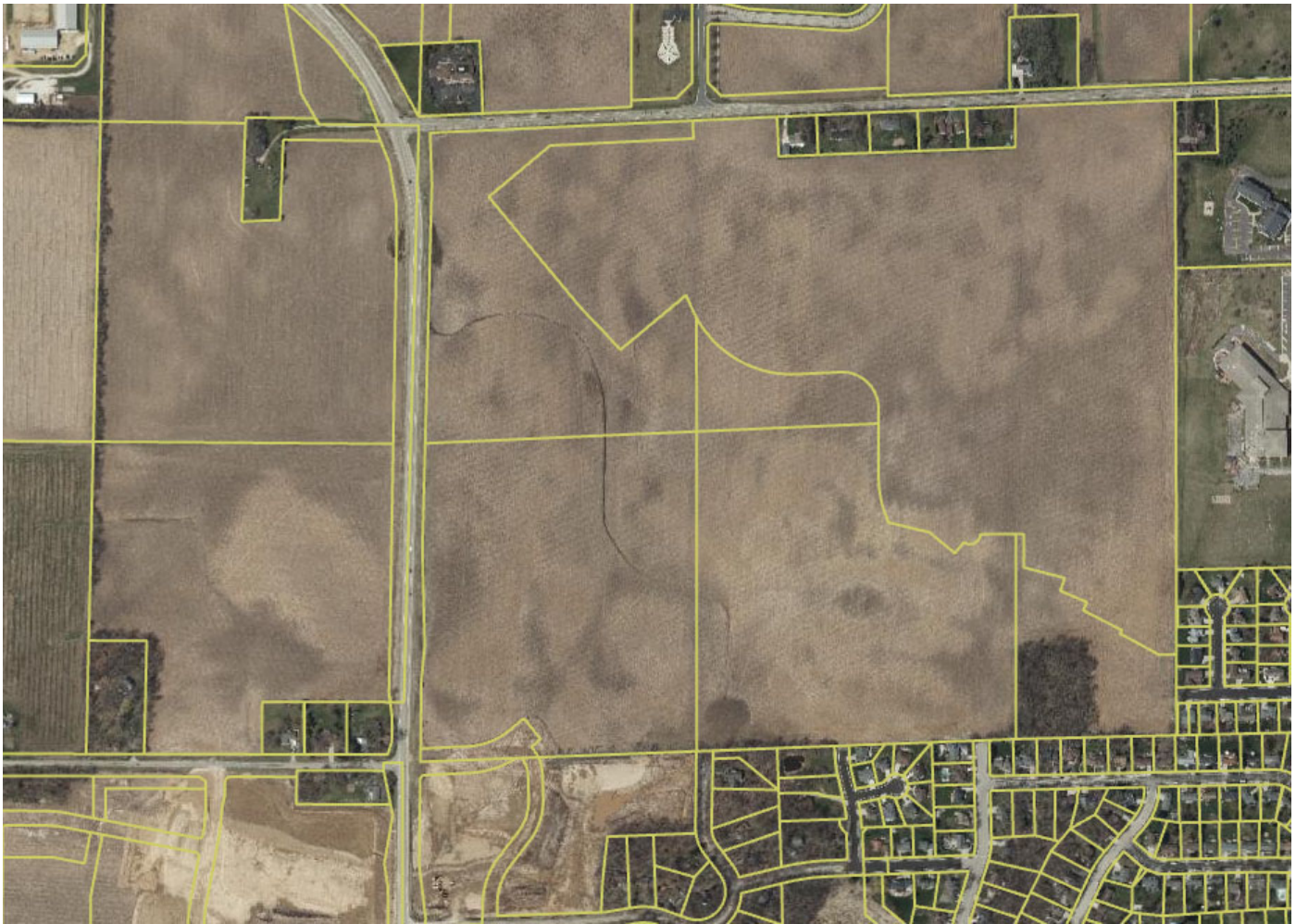


City of Stoughton 2023 URBAN SERVICE AREA AMENDMENT

USH 51 AND CTH B DEVELOPMENTS

June 12, 2023



CITY OF STOUGHTON 2020 URBAN SERVICE AREA AMENDMENT

USH 51 AND CTH B DEVELOPMENTS

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INTRODUCTION

The City of Stoughton is seeking an urban service area amendment (USAA) to add approximately 276.4 total acres to its urban service area. The amendment area is located east and west of USH 51 and south of County Road B. Additionally, 7.81 acres of land east of USH 51 within this proposed development is already within the urban service area. See Map 3.1.

Currently STI Holdings, Inc. is working through the City entitlement process to develop roughly 188.97 acres on the east side of USH 51. The remaining lands (on the west side of UHS 51) have not gone through any City review; however, this amendment is based on land use and road network concepts from the property owner and developer. The assumed acreage by land use is illustrated in this amendment for both sides of USH 51 to understand future utility service and infrastructure needs.

Of the 276.4 acres of land within the proposed USAA, approximately 63.81 acres are expected to be developed for residential uses and 65.24 acres is anticipated for commercial uses. There are 9 existing residential parcels (covering 6.3 acres) currently in the Town of Dunn (west of USH 51) and the Town of Pleasant Springs (east of USH 51) that are included in the amendment area, but do not have anticipated land use changes or future development plans. A 31-acre undeveloped town parcel on the west side of USH 51 may be annexed in the near future for a proposed residential development.

The proposed amendment area has no mapped environmental corridors per Dane County or Wisconsin Department of Natural Resources (WDNR) data. TRC Environmental Corporation performed a wetland delineation in May 2022 that identified four wetland areas. A request for review of the wetland status has been submitted to the Army Corp of Engineers. Pending that determination, approval to modify or fill a subset of the identified wetlands will be requested.

The City of Stoughton's most recent urban service area expansion requests were in 2020 (36 developable acres, residential and commercial use), 2021 (37.9 developable acres of multi-family and commercial use), and 2022 (17.2 developable acres for planned industrial use, and a separate development with 35.5 acres of commercial and mixed-density residential use).

1.0 PLAN CONSISTENCY

1.1 Consistency with the Comprehensive Plan

The City of Stoughton Comprehensive Plan, as most recently updated in July 2017, can be found on the City's website at the following link: <https://www.stoughtonplanning.com/comprehensive-plan>. On April 25th, 2023 the City of Stoughton amended the Comprehensive Plan to meet the desired development plan for the USA amendment area east of USH 51. The Comprehensive Plan includes specific recommendations for lands within this proposed urban service area amendment including areas identified as Northwest Planned Mixed Use Area and Northwest Planned Neighborhood. The following includes a brief description of each future land use category:

Northwest Planned Mixed Use Area:

“...planned to contain a mixture of commercial uses designed to supply the day-to-day goods and services for residents living in both Stoughton and surrounding areas. Senior housing and smaller-scale office development would also be appropriate for this area. Potential commercial uses might include a deli, coffee shop, specialty retail, dry cleaners, drug store, restaurant, and grocery store. Development in this mixed-use center could include first floor retail, accented by upper story office space and residential units, and/or a mix of uses and buildings within the same development. Overall, it is recommended that, to the extent possible, this mixed use center be planned to create compact, pedestrian-friendly clusters of complementary businesses, housing, and civic uses.”

Northwest Planned Neighborhood:

There are several *Planned Neighborhood* areas on the City’s northwest side that generally straddle CTH B. The part of this area located immediately west of Sandhill Elementary School is part of the STI Holdings, Inc. property. The current plan for this property includes-commercial / mixed use development along the USH 51 corridor, a large community park and residential development adjacent to existing neighborhoods to the south and east; this area is shown on this *Plan’s* Future Land Use Map as *Planned Neighborhood*. The STI Holdings, Inc. development plan recommends the following for the residential portion of the development:

- The recommended residential density should be between 4 and 8 du/ac for single family detached development, 10 to 15 du/ac for two family and townhome development, 15 – 30 du/ac for multi-family development, and 25 to 35 du/ac for senior housing development.
- Internal street connections should connect the Planned Neighborhood to the commercial/mixed use area to the west, Greenbriar Drive CTH B, Kriedeman Drive, and Kings Lynn Road. Oakridge Way will accommodate a mid-block pedestrian access point, or street extension to Greenbriar Drive.
- The Planned Neighborhood should include bicycle/pedestrian connection to the commercial/mixed use area to the west, the community park, Sandhill Elementary School, and other destinations.

The proposed development is consistent with this description.

- City Council action to affirm support for this USAA is anticipated in 2023.
- Zoning and land division review processes for the east side of USH 51 are expected to occur in the Summer of 2023.

1.2 Neighborhood Plan

A neighborhood plan had been adopted in 2006 for the east side of USH 51 (i.e., Linnerud Detailed Neighborhood Plan); however, the plan was based on a potential big box development that located elsewhere in the community. While the proposed development incorporates many of the same principles and general uses, the City of Stoughton detached the previously adopted neighborhood plan from the Comprehensive Plan in the April 2023 amendment. There is no detailed neighborhood plan for the west side of USH 51.

1.3 Describe the Need for the Addition to the Urban Service Area

The City of Stoughton's most recent urban service area amendments were in 2011, 2020, 2021 and 2022.

The 2011 amendment was for an area west of USH 51 for 75 developable acres to be a mix of single family, townhome, multifamily and commercial development. This area is now platted as Kettle Park West; a majority of the commercial space is now built out (Walmart, Tru by Hilton hotel, Kwik Trip, McFarland State Bank, etc.) and the one multifamily site is now developed as a senior living complex. The remainder of the development, including a handful of twinhome lots and the rest small and mid-size single-family lots, is in early stages of construction and lot development.

The 2020 amendment brought in 82 acres into the urban service area adjacent to USH 51 and south of Rutland-Dunr Towlne Rd, inclusive of 70 acres of new development in the City of Stoughton and 12 acres of existing residential in the Towns of Rutland and Dunkirk. The new subdivision (51 West Subdivision) is a mixed-use neighborhood that includes 13 acres of commercial and approximately 40 acres of mixed residential lots (i.e., 4 multifamily lots, 5 duplex lots, 3 condo lots, and 9 single-family lots).

The 2021 amendment was for an area west of USH 51 which include a proposed new development of about 15.6 acres for commercial use, 19.7 acres for multifamily and duplex use, 2.6 acres for single-family use, and 25.2 acres for green space/open space/stormwater management.

The first 2022 amendment (Business Park-Emmi Roth) brought in approximately 18.5 acres of land for planned industrial and commercial use, including approximately 0.5 acres of existing road right of way, and 0.8 acres of proposed environmental corridors for stormwater management.

The second 2022 amendment (Magnolia Springs Subdivision) brought an additional 32.5 acres into the urban service area, including 18.8 acres of developable land for mixed-density residential use, 9.4 acres of road right-of-way, and 5.4 acres of green space. Approximately 5.9 acres of the 38.4 acres of annexed land were already within the Stoughton urban service area boundary.

Census data show a 2010 population of 12,611 in 5,133 households (2.46 people/household). The 2020 Census population estimate of 13,173 indicates an increase of 562 people and demand for about 200 additional housing units since 2010. The 2017 Comprehensive Plan cites Department of Administration population and household projections, estimating a continued decline in average household size, about 5,000 new residents by 2040, and demand for about 2,400 housing units.

The experience of the developments enabled by 2011, 2020, 2021 and 2022 USA amendments, reinforced by broader market trends and developer feedback, is there continues to be strong demand for new housing of all types in Dane County. The City of Stoughton supports developments that provide housing diversity supporting varying incomes and ages. While there is interest in expanding density within the City, it is also important to consider interests of citizens to live in an area within Dane County that has its own unique character separate from the City of Madison. The developer continues to balance this with the importance to provide sustainable development within the City of Stoughton.

2.0 INTERGOVERNMENTAL COOPERATION

2.1 Notification of Adjacent Local Governmental Units

There are two adjacent units of government within the amendment area: Town of Dunn and Town of Pleasant Springs. There have been informal communications with each town. Upon approval of this application by City Council, a copy will be sent to each town requesting their formal comments on the proposed amendment. Copies of the transmittal letters are attached as Appendix C.

2.2 Adjacent Local Governmental Unit(s) Objections or Support of the Proposal

As noted in Section 2.1, a copy of the proposed amendment application will have been sent to the adjacent towns for their comments following City Council approval of the application. Upon receipt of those comments they will be forwarded to CARPC staff. At present we are aware of no objections to the proposed amendment.

3.0 LAND USE

3.1 Map of the Proposed USAA Boundary and Existing Rights of Way (ROW)

The proposed amendment area includes 276.42 acres of private parcels and 49.59 acres of public rights-of-way. See Map 3.1

3.2 Tables of Land Use Acreage and Number of Housing Units

Table 3.2 is based on the proposed development east of USH 51 shown in Map 3.2a and the development sketches shown in Map 3.2b. Details of the developments (such as precise road alignments, lot configurations, and precise sizes and locations of utilities and stormwater management features) will change as the proposals go through the plat approval process. However, the mix of land uses and the general layouts are not anticipated to change substantially.

Table 3.2: Urban Service Amendment Area Data

Table 3.2: Urban Service Area Amendment Land Use Acreages					
Proposed Land Use	Acres in USA Amendment			Acres in Existing USA	# of Housing Units
	New Development	Existing Development	Environmental Corridor	New Development	
Single Family Residential	6.72	6.33*	-	5.62	45*
Two-Family Residential	3.72	-	-	-	20
Multi-Family Residential	53.37	-	-	-	1,156
Residential Total	63.81	6.33	-	5.62	1,221
Commercial	65.24	-	-	-	
Industrial	0	-	-	-	
Institutional	0	-	-	-	
Street ROW	48.03	-	-	1.56	
Parks**	34.11	-	34.11	-	
Stormwater Management (SWM)	62.76	-	62.76	-	
Other Open Space	2.45	-	2.45	-	
TOTAL	276.4	6.33	99.32	7.18	

* includes 9 existing Town properties

** assumes a 1-acre park will be required on the west side of USH 51 (in Outlot W2)

3.3 Map of Existing Land Uses

Existing land uses are accurately depicted in the Existing Land Use Map from the 2017 Comprehensive Plan. An Excerpt of this map is provided, see Map 3.3.

3.4 Quantity and Type of Housing Units

A total of 1,219 new housing units are proposed (plus, 9 existing homes) in the amendment area, including single-family, duplex, and multifamily units. See Table 3.2. The multifamily designation tentatively includes 1,156 units and the two-family designation includes 20 units (could be duplexes and/or townhomes).

4.0 NATURAL RESOURCES

4.1 Natural Resource Areas

The proposed amendment area does not include any of the following natural resources, and no map is provided: water bodies, floodplains, areas of unique vegetation or geology, highly erodible soils, or groundwater recharge areas.

Wetlands: A wetland delineation report in May 2022 identified a total of four wetland areas, totaling 9 acres. See Map 4.1A.

- **Wetland 1 (W-1):** This is a 2.89 acre wetland consisting of a partially farmed Fresh (Wet) Meadow plant community.
- **Wetland 2 (W-2):** This is a 0.39 acre wetland consisting of a farmed Fresh (Wet) Meadow plant community.
- **Wetland 3 (W-3):** This is a 0.81 acre wetland consisting of a farmed Fresh (Wet) Meadow plant community.
- **Wetland 4 (W-4):** This is a 0.73 acre wetland consisting of a farmed Fresh (Wet) Meadow plant community.

Woodlands

There is an area of woodlands in the northwest corner of the amendment area. See Map 4.1B.

Contours and Steep Slopes

The southeast corner of the site has notable elevation change, which will impact some development patterns. However, there is no area with steep slopes (i.e., 20% or greater) that would restrict developing the area. See Map 4.1C.

Soils Types

See Map 4.1D.

4.2 Public Outlots for Parks and Stormwater Management Facilities

All park and stormwater management will be located on public outlots. These are shown in green in Map 3.2a for the east side of USH 51. There will be public outlots on the west side of USH 51 that will be determined through future entitlement processes for the area by the City of Stoughton, assuming all lands are in the City at the time of the development submittal.

4.3 Existing Environmental Corridors

There are no existing environmental corridors mapped in the proposed USAA, per the CARPC online mapping tool.

4.4 Proposed Environmental Corridors

Proposed Environmental Corridors will include all of the outlots, to be used for stormwater management and public park purposes. These are shown in green in Map 4.4. The final boundaries of the proposed environmental corridors will be confirmed at the time land division.

4.5 Minimum Environmental Corridors Criteria Requirements

The proposed Environmental Corridors meet the minimum requirements including but not limited to:

- 1) Wetlands under WDNR Jurisdiction;
- 2) Vegetative wetland and shoreland buffers;
- 3) 100-year floodplains and floodways;
- 4) Steep wooded slopes (12% or greater);

- 5) Navigable water bodies designated by WDNR;
- 6) Non navigable streams designated by WDNR;
- 7) Open drainageways;
- 8) Public Lands and Conservancy areas excluding isolated (small) neighborhood parks;
- 9) Proposed public parks and conservancy areas, excluding isolated (small) neighborhood parks;
- 10) Areas with problematic soils, unique geological features, and critical recharge areas;
- 11) Archaeological sites on the National Register;
- 12) Endangered and sensitive habitats as determined by WDNR;
- 13) Stormwater facilities;
- 14) Known and documented significant or sensitive groundwater recharge areas.

5.0 UTILITIES & STORMWATER MANAGEMENT

5.1 Proposed Sanitary Sewer Extension for the USAA

The land within the proposed urban service area amendment (USAA) will ultimately be served by a new sewer extended north from an existing 18-inch interceptor sewer at the north end of Kings Lynn Road. Sewer service to parts of the development area will require a lift station, but parts of the southeast area of the development will be served by gravity sewer. Development on the west side of US51 will also be served by the lift station. A small existing lift station on Oakridge Way servicing 12 homes is planned to be eliminated by a gravity sewer extension from the new development. The interceptor is anticipated to be extended as an 18" sanitary sewer to the discharge of the proposed lift station. The sewers and lift station within the development area will be sized to serve future development beyond the USAA.

All sewers connecting to the interceptor within the proposed development are anticipated to range in size from 8-inches to 15-inches in diameter. The forcemain will be sized for the anticipated future flows of the lift station. All gravity sewer lines will extend to the plat edges wherever streets extend to the plat edge. The developer will be responsible for installation of all sewer facilities based on the final plat approval and development agreement.

5.2 Estimate of the Average Daily and Peak Wastewater Flow for the USAA

The estimated flow rate is based on the expected flow rates of 1,500 gallons per day per acre for commercial use and 100 gallons per person per day for residential use. A peaking factor of 2.5 for commercial development and 4.0 for residential development results in an estimated peak flow of 1.695 cfs from the USAA.

Table 5.3 - Average and Peak Wastewater Flow Rates for the Proposed USAA

Land Use	Metrics			Average Flows (GPD)	Average Flows (cfs)	Peaking Factor	Peak Flow (cfs)
Commercial	1500 GPD/acre	65.24 (w/HQ) acres		86,055	0.151	2.5	0.378
New SF Residential	100 GPD/person	44 units*	2.8 people/unit	12,040	0.019	4	0.075
Duplex Residential	100 GPD/person	20 units	2.1 people/unit	4,200	0.006	4	0.026
MF Residential	100 GPD/person	1,156 units	1.7 people/unit	196,520	0.304	4	1.216
Total				298,815	0.462		1.695

* includes 9 existing Town properties

5.3 Current Average Daily Flow for the Interceptor Sewer and the Wastewater Plant

All areas of the proposed USAA flow to existing sanitary sewer on Kings Lynn Road. Based on the 2004 study of the Kings Lynn interceptor the existing capacity of the 18" sanitary sewer is 3.93 cfs. It should be noted that Stoughton Utilities prefers that sewers operate at no more than 80% of the maximum capacity, which limits the interceptor capacity at 3.14 cfs. The estimated current peak flow in the Kings Lynn Road interceptor immediately upstream of Jackson Street is 1.33 cfs. The estimated peak flow in the Kings Lynn Road interceptor immediately upstream of Jackson Street including full development of the proposed USAA is 2.71 cfs. The estimated peak flow in the Kings Lynn Road interceptor immediately upstream of Jackson Street including full development of the proposed USAA and future sewer service areas beyond the proposed USAA is 4.06 cfs. The ultimate peak flow for the proposed USAA area is estimated at 1.648 cfs being well under the existing capacity of the 18" sanitary sewer.

The Stoughton wastewater treatment plant has a total design average flow capacity of 1.65 mgd. The current average daily flow is approximately 1.15 mgd, per the 2021 CMAR.

5.4 Wastewater Treatment Plant / Interceptor Sewer Capacity to Serve the USAA

Full development of the USAA is expected to generate an additional peak wastewater flow rate of 1.695 cfs in the existing sewers (see Table 5.3). The estimated total future peak flow rate in the existing sewer on Kings Lynn Road is 2.71 cfs, being approximately 69% of the maximum design pipe capacity of 3.93 cfs of the Kings Lynn Road interceptor.

Although the Kings Lynn Road interceptor appears to have sufficient capacity to serve the proposed USAA, the City of Stoughton will need to carefully evaluate the size of and land use within future USAA's to the north and west of the proposed USAA or consider upgrades to the interceptor. No other sewers or interceptors downstream of Kings Lynn Road were evaluated.

The difference in design capacity (1.65 mgd) and current flows (1.15 mgd) for the Stoughton wastewater treatment plant is approximately 0.50 mgd. The estimated flows from the proposed USAA (including recently amendments for 51 West (91,790 GPD), Magnolia Springs (28,840 GPD) and Stone Crest (Full Buildout 87,224 GPD)) is anticipated to utilize 0.51 mgd. Stoughton Utilities recognizes the potential need to increase plant capacity as these new developments come online and to support additional future development.

5.5 Proposed Public Water Supply/Distribution System Extension for the Proposed USAA

The portion of the amendment area on the easterly side of USH 51 will be served by connecting to a 10-inch watermain at the intersection of Nygaard Street and Greenbriar Drive and extending it east and north throughout the development. Connections to existing 10-inch water mains on Kriedeman Drive and Kings Lynn Road will also be made. The new water main connecting Oakridge Way to Greenbriar Drive will be 8-inch diameter, but all other water mains will be 10-inch diameter. A 10-inch water main will also be extended to the development from Lincoln Avenue west along county B. The portion of the amendment area on the westerly side of USH 51 will be served by extending a 10-inch watermain north from the Rutland-Dunn Town Line Road / Oak Opening Drive intersection which will be looped to the watermain on the easterly side of USH 51 as shown with a crossing of USH 51 in Map 5.1. The developer will be responsible for installation of all watermain facilities within the plat, based on the final plat approval and development agreement.

5.6 Estimate of the Average Daily and Peak Hourly Water Demand for the USAA

The estimated flow rate is based on a typical expected commercial flow rate of 1,500 gallons per acre per day and a typical expected residential flow rate of 100 gpd. Using these figures, the 65.24 acres of commercial use will require average daily water of 97,860 gpd and a peak of 10,194 gallons per hour (peaking factor of 2.5). The 1,219 new residential units will require average daily water of 213,040 gpd and a peak of 35,507 gallons per hour (peaking factor of 4). Combined, the average daily water demand is estimated for the proposed development to be 310,900 gpd.

Table 5.7 - Average and Peak Water Demand for the Proposed USAA

Land Use	Metrics			Average Flows (GPD)	Peaking Factor	Peak Flow (gallons per hour)
Commercial	1,500 GPD/acre	65.24 acres	-	97,860	2.5	10,194
New SF Residential	100 GPD/person	44 units	2.8 people/unit	12,320	4	2,053
Duplex Residential	100 GPD/person	20 units	2.1 people/unit	4,200	4	700
MF Residential	100 GPD/person	1,156 units	1.7 people/unit	196,520	4	32,753
Total				310,900		45,700

5.7 Current Average Daily and Peak Hourly Water Demand

Based on PSC records for 2021, the existing average water use was approximately 1.214 million gallons per day (MGD), or approximately 843 gallons per minute (gpm), with a maximum day usage of 2.048 MGD or 1,422 gpm

(Stoughton Utilities data). Including the previously described water main improvements, the water system model-predicted fire flows throughout the development vary from 3,500 to 4,700 gpm at a 20 psi residual pressure, which can be considered adequate to support this type of development. The water model was operated with Well No. 7 in service and all elevated storage water levels set to 10 feet below overflow elevation.

5.8 Current Capacity of the Water System

The nearest elevated tank that would serve this proposed development is Tower 2, located on Furseth Road, just east of Sundt Lane. Tower 2 has a capacity of 300,000 gallons and an overflow elevation of 1,081 feet above mean sea level. Assuming the water level in Tower 2 is 10 feet below overflow, or 1,071 ft, pressures in the proposed development would range from 52 to 74 psi. This is based on ground level elevations in the proposed development that range from approximately 900 to 950 feet.

The City of Stoughton is supplied by four groundwater wells, Nos. 4, 5, 6, and 7. Well Nos. 4, 6, and 7 pump directly into the distribution system while Well No. 5 pumps into a ground-level reservoir, where two 1,000 gpm booster pumps are used to pump into the distribution system. The reported capacities of the four wells are listed below in gpm and MGD.

Table 5.9.1 – Well Capacity

Well No.	Capacity (gpm)	Capacity (MGD)
4	1,220	1.757
5	950	1.368
6	1,050	1.512
7	1,080	1.555
Total Capacity	4,300	6.192
Firm Capacity*	3,220	4.435

*Assumes Well No. 7 well pump out of service

System storage consists of two steel spheroid elevated tanks and a concrete ground-level reservoir at Well No. 5. A summary of these storage facilities is listed below.

Table 5.9.2 – Water Storage Capacity

Storage Facility	Year Constructed	Capacity (gallons)	Overflow Elevation (ft)
Tower 2	1977	300,000	1,081.0
Tower 3	2010	600,000	1,081.0
Well No. 5 Reservoir	1989	400,000	N/A
Total Storage	--	1,300,000	--

5.9 Proposed Stormwater Management Standards and Best Management Practices

All areas in the proposed amendment area will be subject to the following standards:

Performance Standards

Applicable stormwater management performance measures for this site will exceed standards required by the State of Wisconsin (NR 151), Dane County (Chapter 14), and City of Stoughton (Chapter 10, Article IV, Section 10) Erosion Control and Stormwater Management, which are summarized below.

Water Quality: Require Post-Construction sediment control sufficient to reduce total suspended solids

leaving the site by at least 80%

Peak Discharge Rate Control: Maintain predevelopment peak runoff rates for the 1- through 200-yr, 24-hour storm events, utilizing an MSE4 rainfall intensity distribution, as itemized below:

- 1-yr, 24-hr event (2.49 inches).
- 2-yr, 24-hr event (2.84 inches).
- 10-yr, 24-hr event (4.09 inches).
- 100-yr, 24-hr event (6.66 inches).
- 200-yr, 24-hr event (7.53 inches).

Infiltration: Requirement for any development type is to infiltrate sufficient runoff volume so that post-development infiltration volume shall be at least 90% of the pre-development infiltration volume based on average annual rainfall.

Thermal Control: The amendment area is not part of any thermally sensitive areas and thus will not be required.

Oil and Grease Control: Required for the commercial lots planned for the development.

Additionally, because of the existence of a series of hydraulically sensitive landlocked basins to the south of lands on the east side of US 51, runoff volumes discharged offsite must be maintained at existing levels for events ranging from the 1-year to the 200-year, 24-hour rain event.

Development Area Details

West Side

Stormwater management for lands on the west side of USH 51 will be designed to meet the standards described above.

East Side

Stormwater management for lands on the east side of USH 51 will be provided through the construction of seven (7) new stormwater management ponds. These ponds will be established as paired systems, with upstream wet basins intended to provide water quality pre-treatment prior to discharging to downstream infiltration basins. Collectively these paired pond systems will also provide peak discharge rate control, volume control through infiltration, and water quality via sedimentation and infiltration.

As illustrated in Map 3.2a, there is a paired system of wet and dry ponds west of the wetlands, a paired system with two wet ponds draining to one large dry basin east of the wetlands, and one more paired system in the NE corner of the site for water that flows offsite to the north.

The acreage of this east-side area is 162.81 acres. Proposed stormwater management features will serve the entire site and accommodate runoff from approximately 201.5 acres of additional off-site area, including the 87.3 acres west of USH 51 in this USA amendment. Approximately 58.4 acres of off-site area (areas to the north, east, and south of the site) are fully developed, some of which has existing stormwater management practices in place. The remainder of the off-site area is undeveloped and it is assumed that when these lands develop that those activities will be held to similar standards as this site; specifically that 1- through 200-yr peak runoff rates and volumes will be held to existing conditions levels.

The existing site contains four interconnected landlocked basins that capture 100% of runoff flowing onto and through the site (including 125.8 acres west of USH 51 and 11.9 acres north of CTH 'B') such that the site does not discharge to the south under events 2-yr severity and less. When discharges to the south do occur, flows pass overland toward a series of landlocked basins. Because of concerns for flooding of these landlocked basins due to development-related runoff volumes, the site's stormwater management plan also controls runoff volumes to levels no higher than existing conditions for events ranging from the 1-yr through the 200-yr event. In fact, under developed conditions, there will be zero discharge off-site under 2-yr conditions to match existing conditions.

The system of streets, storm inlets, and storm sewer pipes necessary to convey stormwater to the proposed stormwater ponds has not been designed as of the date of this memo. It is currently assumed that 200-yr peak flows will be delivered to the various ponds via storm sewer and overland street conveyance within the street ROW.

This proposed stormwater management system for the eastern 181 acres will exceed the performance standards described above.

- All the proposed wet ponds provide in excess of 80% TSS reduction. Because of the need for excess infiltration practices to control runoff volumes for storms up to the 200-yr, 24-hr storm, the infiltration basins which lie downstream from wet ponds provide additional TSS reduction such that the site as a whole is expected to achieve well over 90% TSS reduction annually (close to 100%).
- The existing site discharges runoff in 2 different directions, with most of the site discharging to the south. Under proposed conditions, discharges in all directions will be held to no more than existing conditions.
- Under proposed conditions, runoff volumes for all rainfall events including up to the 200-yr, 24-hr rainfall event will be reduced by at least 10% relative to existing conditions (10% at the 200-yr, 24-hr event, more for smaller events)
- Because of the high degree of infiltration required on the site to maintain event-based runoff volumes, post-development infiltration will be 100% of pre-development conditions.

5.10 Stormwater Facility Management

The City of Stoughton will accept and maintain the stormwater facilities in public outlots following City standards. Any facilities on private lots will be maintained by the property owners, and will be subject to a maintenance agreement in perpetuity, per Ch. 14.49(3)(d) and 14.51(1)(i) of Dane Co ordinance.

APPENDIX A

City of Stoughton Resolution R-82-2023

CITY OF STOUGHTON, 207 S. FORREST STREET, STOUGHTON, WISCONSIN

RESOLUTION OF THE COMMON COUNCIL

A Resolution finding that the expansion of the Stoughton Urban Service Area to include approximately 276 acres located on the far northwest side of the City, east and west of USH 51, is consistent with the City of Stoughton Comprehensive Plan and directs staff to submit a request for expanding the Stoughton Urban Service Area to include said lands.

Committee Action: Plan Commission recommends Common Council approval 6 – 0

Fiscal Impact: None.

File Number: R-82-2023

Date Introduced: May 23, 2023

The City of Stoughton, Wisconsin, Common Council does proclaim as follows:

WHEREAS, the City's Urban Service Area is the area in which denser, urban development is permitted and utilities such as City sewer and water are allowed; and

WHEREAS, the City expects urban development to occur within an area located along USH 51 (both sides) north of Rutland Dunn Town Line Road on the far northwest side of Stoughton as outlined in City of Stoughton 2023 Urban Service Area Amendment – USH 51 And CTH B Developments (“Amendment”); and

WHEREAS, the Amendment area adds approximately 276 acres; and

WHEREAS, the City has planned for expected urban growth within the proposed urban service expansion area; and

WHEREAS, the City's Comprehensive Plan designates this area as part of the Northwest Planned Mixed Use Area and the Northwest Planned Neighborhood and development planned for this area is consistent with this Plan; and

WHEREAS, the Amendment will be consistent with all applicable land-use and environmental protection regulations and requirements; and

WHEREAS, the Plan Commission recommends approval of expanding the Stoughton Urban Service Area to include the Amendment at its May 8, 2023 meeting;

NOW, THEREFORE, BE IT RESOLVED that the City of Stoughton Common Council finds that the expansion of the Urban Service Area to include the approximately 276 acres located on the far northwest side of the City, east and west of USH 51, is consistent with the City of Stoughton Comprehensive Plan and furthermore directs staff to submit a request to expand the Stoughton Urban Service Area to include said property as outlined in City of Stoughton 2023 Urban Service Area Amendment – USH 51 And CTH B Developments.

BE IT FURTHER RESOLVED that the City of Stoughton hereby requests that the Capital Area Regional Planning Commission consider and approve the requested amendment to the Urban Service Area.

Council Action: ☒ Adopted ☐ Failed Vote 10-0

Mayoral Action: ☒ Accept ☐ Veto
Tim Swadley 5/23/2023
Tim Swadley, Mayor Date

Council Action: _____ ☐ Override Vote _____

APPENDIX B

Maps

APPENDIX C

Adjacent Government Notice Letter



CITY OF STOUGHTON
DEPARTMENT OF
PLANNING & DEVELOPMENT
207 S. Forrest, Stoughton, WI. 53589

(608) 873-6619

www.ci.stoughton.wi.us

RODNEY J. SCHEEL
DIRECTOR

May 24, 2023

Steve Greb, Town Chairperson
Town of Dunn
4156 County Road B
McFarland, WI 53558

Dear Mr. Greb:

The City of Stoughton has submitted an application to the Capital Area Regional Planning Commission (CARPC) for an amendment to the Stoughton Urban Service Area. The attached document is a copy of the narrative and maps. We are contacting you as an adjacent jurisdiction.

The proposed amendment would add approximately 276 acres of land to the Stoughton Urban Service Area to the northwest quadrant of Stoughton Urban Service Area. Most of the area is within the current City limits.

Please review the attached application materials. We would be happy to receive any comments you have or meet with you to discuss. You may also copy your comments to Mike Rupiper at CARPC (miker@capitalarearpc.org).

Sincerely,
CITY OF STOUGHTON

Rodney Scheel

Rodney Scheel
Director of Planning & Development



CITY OF STOUGHTON
DEPARTMENT OF
PLANNING & DEVELOPMENT
207 S. Forrest, Stoughton, WI. 53589

(608) 873-6619

www.ci.stoughton.wi.us

RODNEY J. SCHEEL
DIRECTOR

May 24, 2023

Richard Green, Town Chairperson
Town of Pleasant Springs
2354 County Road N
Stoughton, WI 53589

Dear Mr. Green:

The City of Stoughton has submitted an application to the Capital Area Regional Planning Commission (CARPC) for an amendment to the Stoughton Urban Service Area. The attached document is a copy of the narrative and maps. We are contacting you as an adjacent jurisdiction.

The proposed amendment would add approximately 276 acres of land to the Stoughton Urban Service Area to the northwest quadrant of Stoughton Urban Service Area. Most of the area is within the current City limits.

Please review the attached application materials. We would be happy to receive any comments you have or meet with you to discuss. You may also copy your comments to Mike Rupiper at CARPC (miker@capitalarearpc.org).

Sincerely,
CITY OF STOUGHTON

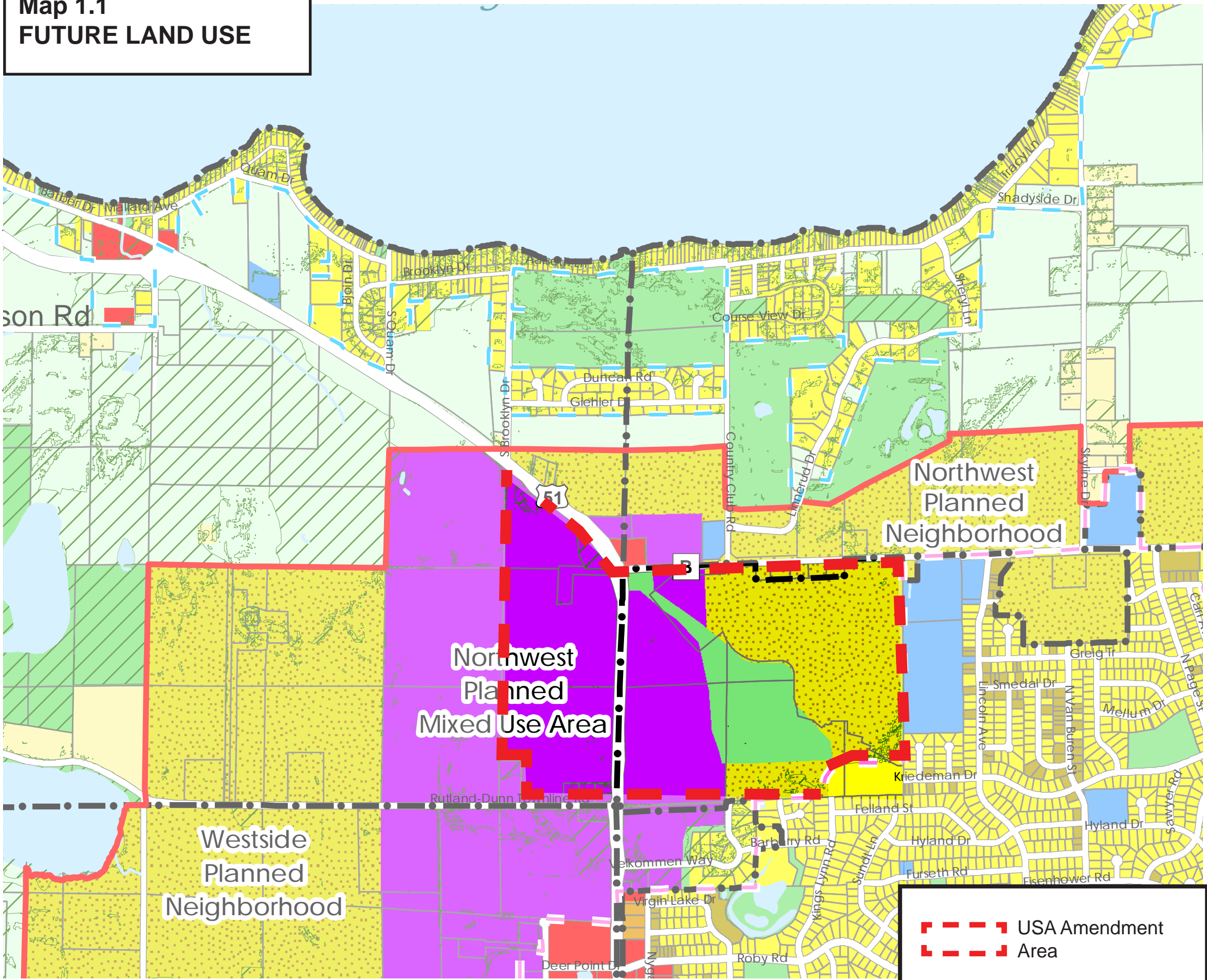
Rodney Scheel

Rodney Scheel
Director of Planning & Development

APPENDIX D

Wetland Delineation Report

Map 1.1
FUTURE LAND USE



City of Stoughton
Comprehensive Plan

Future Land Use

- Planned Stoughton Urban Development Area**
- 2017 Urban Service Areas
- 2017 Limited Service Areas
- 2017 Municipal Boundaries
- Railroads

Future Land Use

- Agriculture/Rural/Vacant
- Unsewered Residential
- Single Family Residential
- Two Family Residential
- Multi-Family Residential
- Planned Neighborhood
- Central Business
- Planned Mixed Use
- Planned Office
- Neighborhood Office
- Planned Business
- Neighborhood Business
- Planned Industrial
- General Industrial
- Heavy Industrial
- Landfill/Extraction
- Institutional
- Recreation or Public Open Space
- Environmental Corridor (subject to confirmation)*
- Surface Water
- Right-of-Way

1. Single Family Residential
2. Two Family Residential
3. Multi-Family Residential
4. Institutional
5. Neighborhood Office
6. Neighborhood Business
7. Recreation or Public Open Space

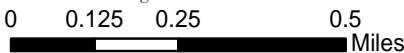


1. Planned Business
2. Institutional
3. Recreation or Public Open Space
4. Multi-Family Residential
5. Planned Office
6. Planned Industrial

Shapes on map represent general recommendations for future land use. Actual boundaries between different land use types and associated zoning districts may vary somewhat from representations on this map. Existing (not future) land use pattern shown beyond Planned Development Area.

*Environmental corridors are a composite of the most important natural resources. Individual components consist of most of those elements seen on Map 2: Natural Resources. These include: DNR Wetlands, 100 Year Floodplain, Woodlands, Public Lands, Steep Slopes above 12%, and all other Environmental Corridors as defined by CARPC. Within the Stoughton Urban Service Area, only Corridors defined by CARPC are depicted.

** See Table 9 for Acreage Totals.

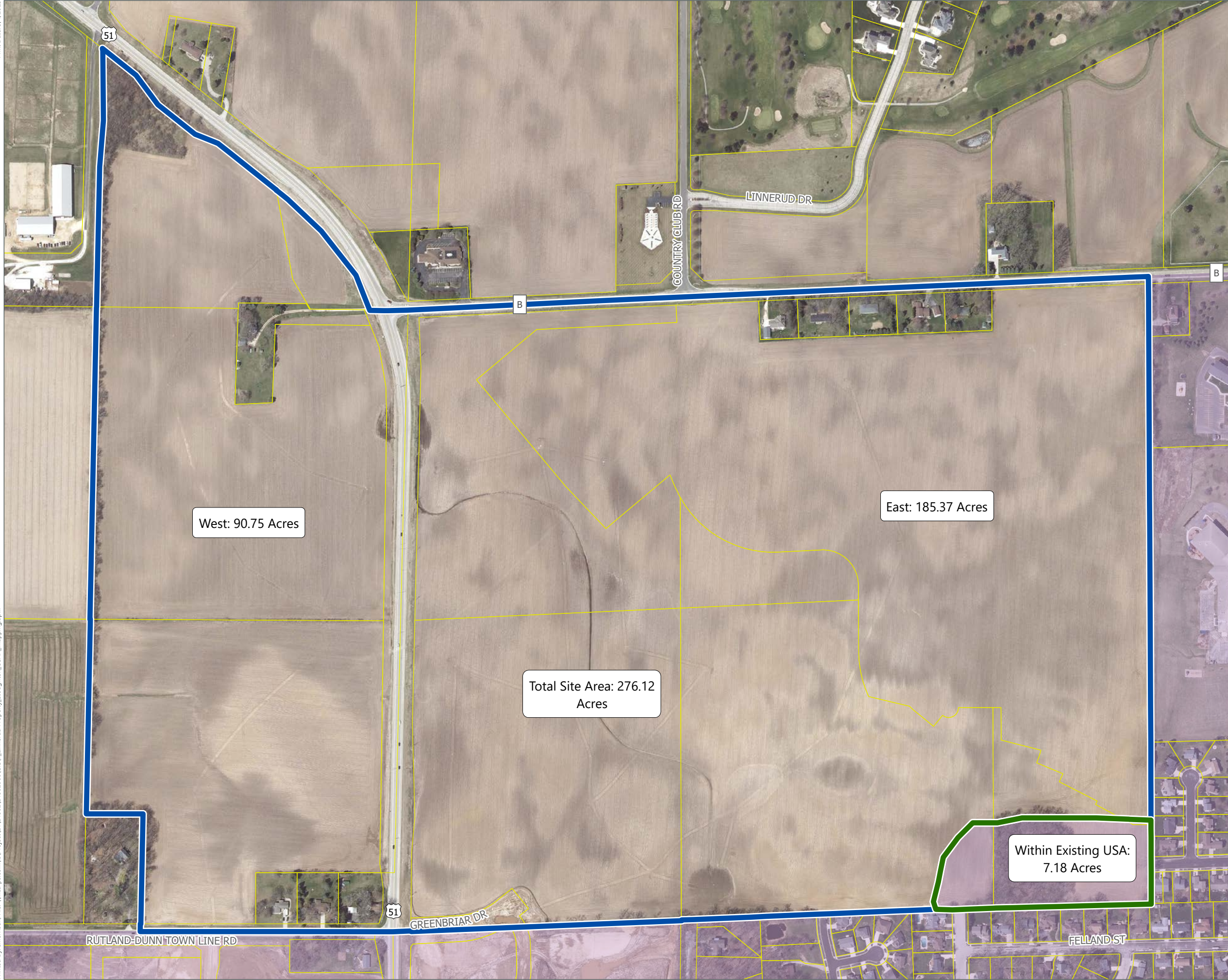


Adopted: July 11, 2017

Sources: Dane County LIO, City of Stoughton, CARPC, FEMA, WI DNR, Madison Area Transportation Planning Board

VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change









Map 3.1 PROPOSED AMENDMENT AREA

USH 51 and CTH B Developments

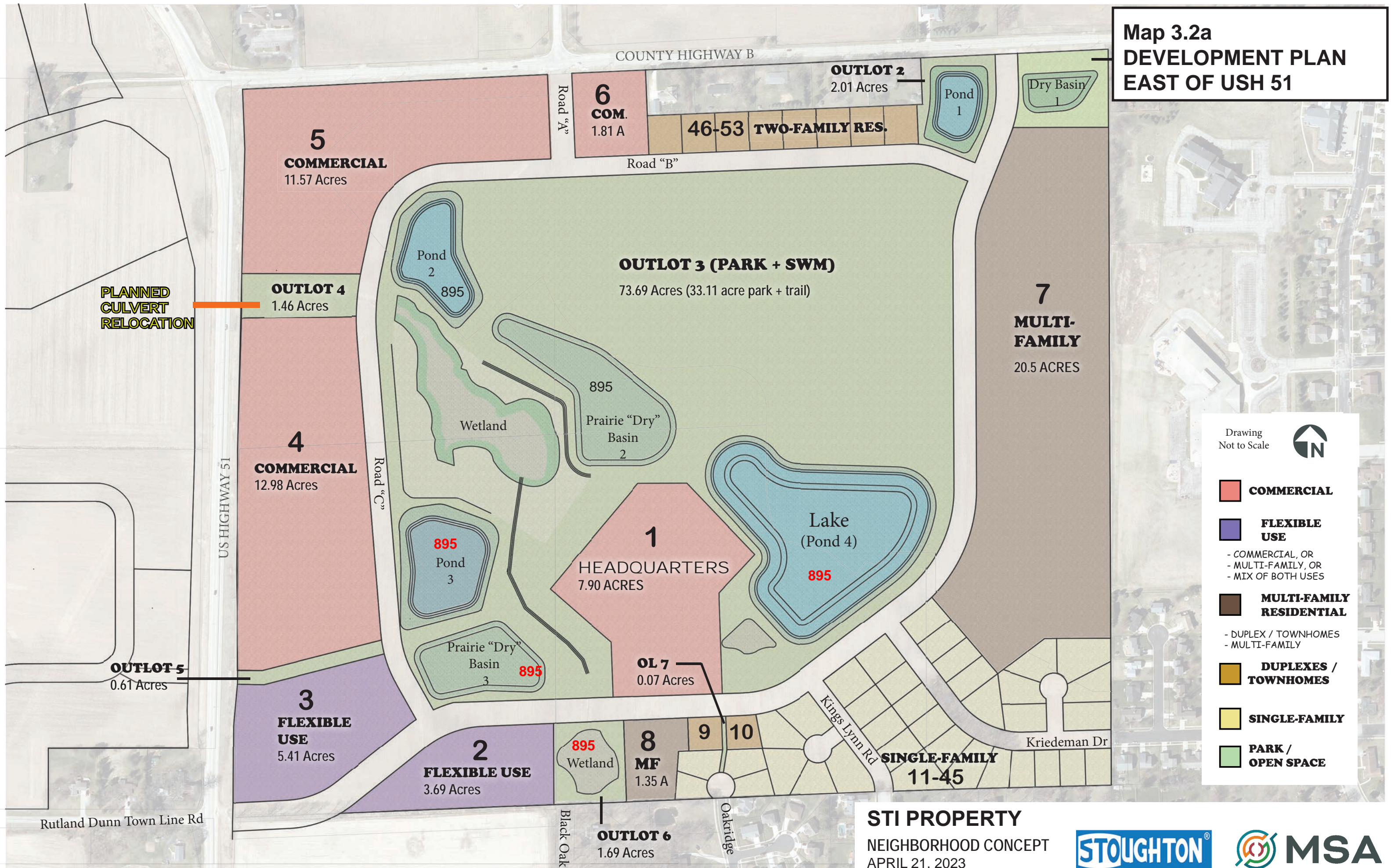
City of Stoughton
Dane County, WI

-  Existing Urban Service Area
-  Parcel Boundary
-  Urban Service Area Amendment Boundary
-  Site Boundary Within Existing Urban Service Area

Data Sources:
Dane County GIS (2023)
Aerial: Dane County (2022)



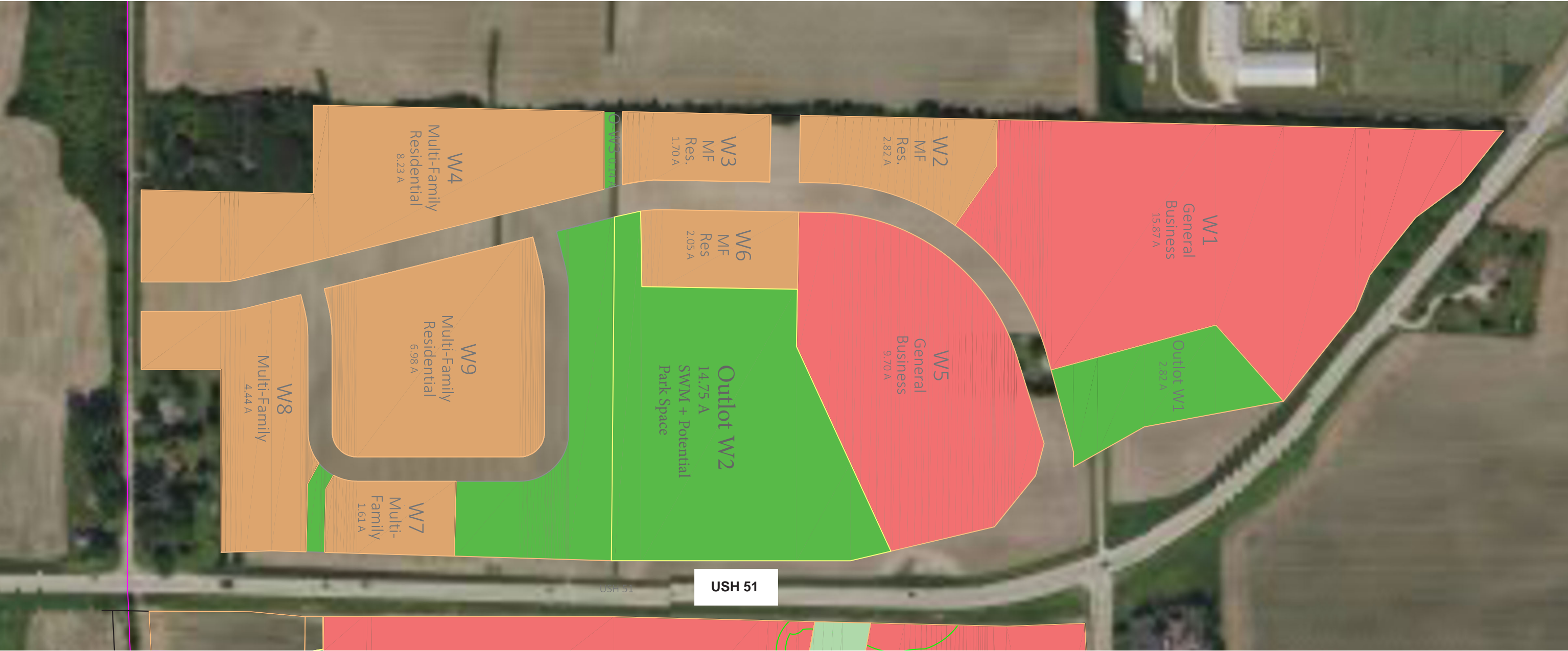
Map 3.2a DEVELOPMENT PLAN EAST OF USH 51



STI PROPERTY
NEIGHBORHOOD CONCEPT
APRIL 21, 2023



Map 3.2b
CONCEPTUAL
DEVELOPMENT PLAN
WEST OF USH 51



Drawing
Not to Scale

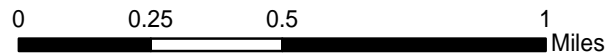


**Map 3.3
EXISTING LAND USE**

**City of Stoughton
Comprehensive Plan**

Existing Land Use

- 2017 Urban Service Areas
- 2017 Limited Service Areas
- 2017 Municipal Boundaries
- Railroads
- Agriculture/Rural/Vacant
- Unsewered Residential
- Single Family Residential
- Two Family Residential
- Multi-Family Residential
- Central Business
- Planned Office
- Neighborhood Office
- Planned Business
- Neighborhood Business
- Planned Industrial
- General Industrial
- Heavy Industrial
- Landfill/Extraction
- Institutional
- Recreation or Public Open Space
- Stormwater Management
- Surface Water
- Right-of-Way



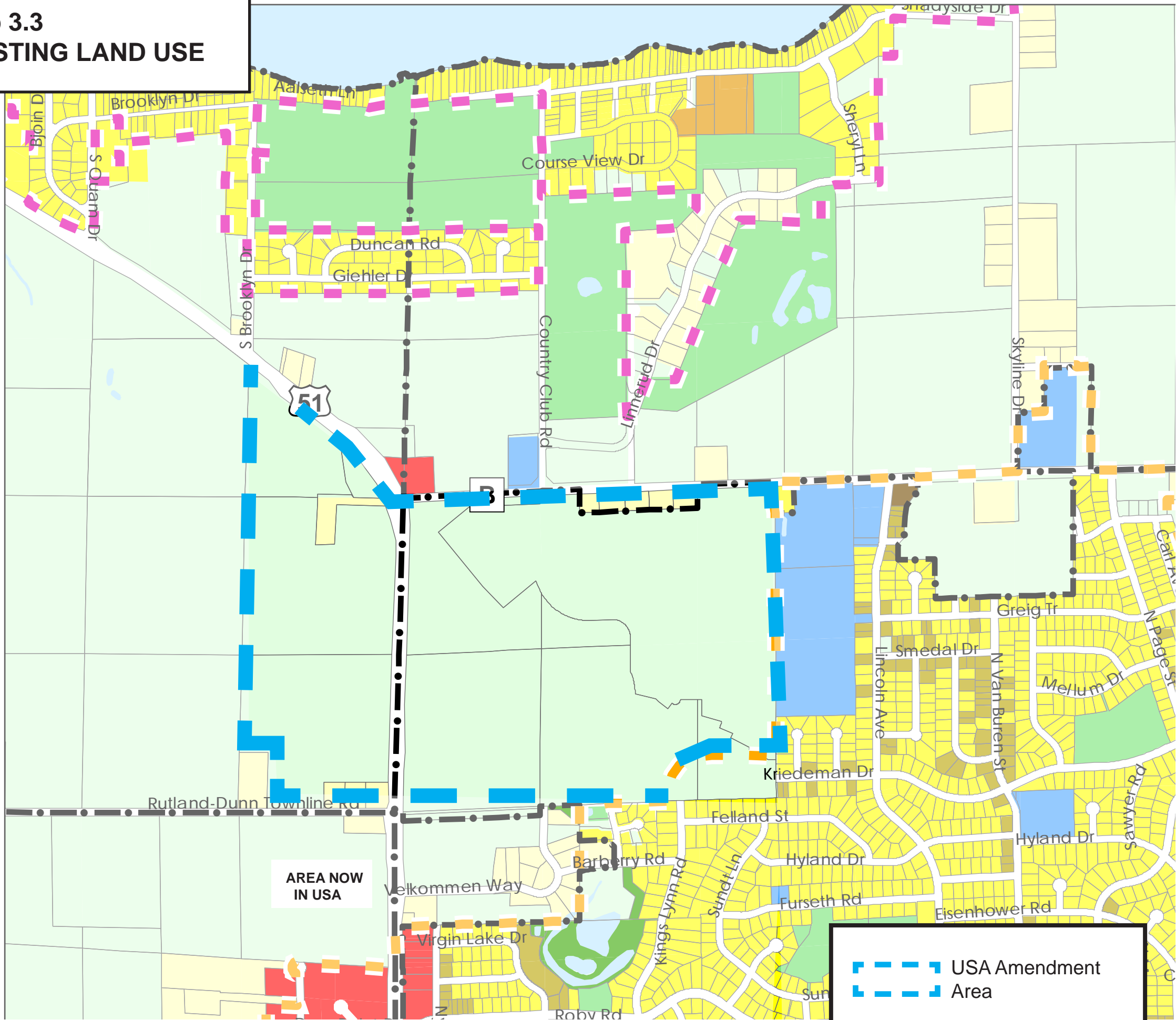
Adopted: July 11, 2017

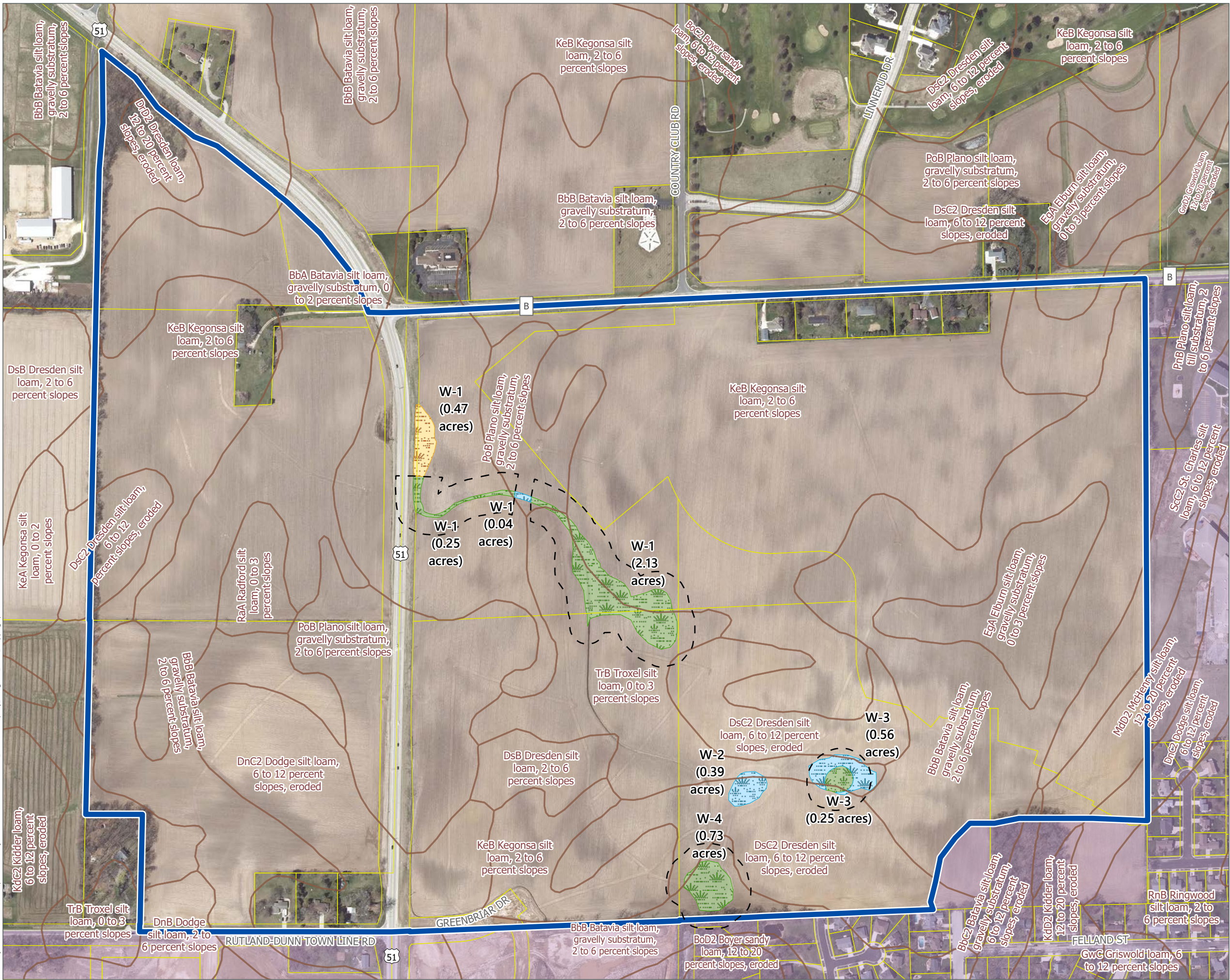
Sources: Dane County LIO, City of Stoughton.

**VANDEWALLE &
ASSOCIATES INC.**
Shaping places, shaping change



USA Amendment
Area





Map 4.1A Wetland Data

STI Development Property

City of Stoughton
Dane County, WI

- Urban Service Area Amendment Boundary
- Parcel Boundary
- Existing Urban Service Area
- NRCS Soil Type
- 75-ft Wetland Buffer

- Existing Wetland Status**
- Anticipated Disturbance and Removal by DOT
 - Permitted Disturbance/Fill
 - To Remain





Data Sources:
Dane County GIS (2023)
Aerial: Dane County (2022)
Wetlands Delineated by TRC (2022)



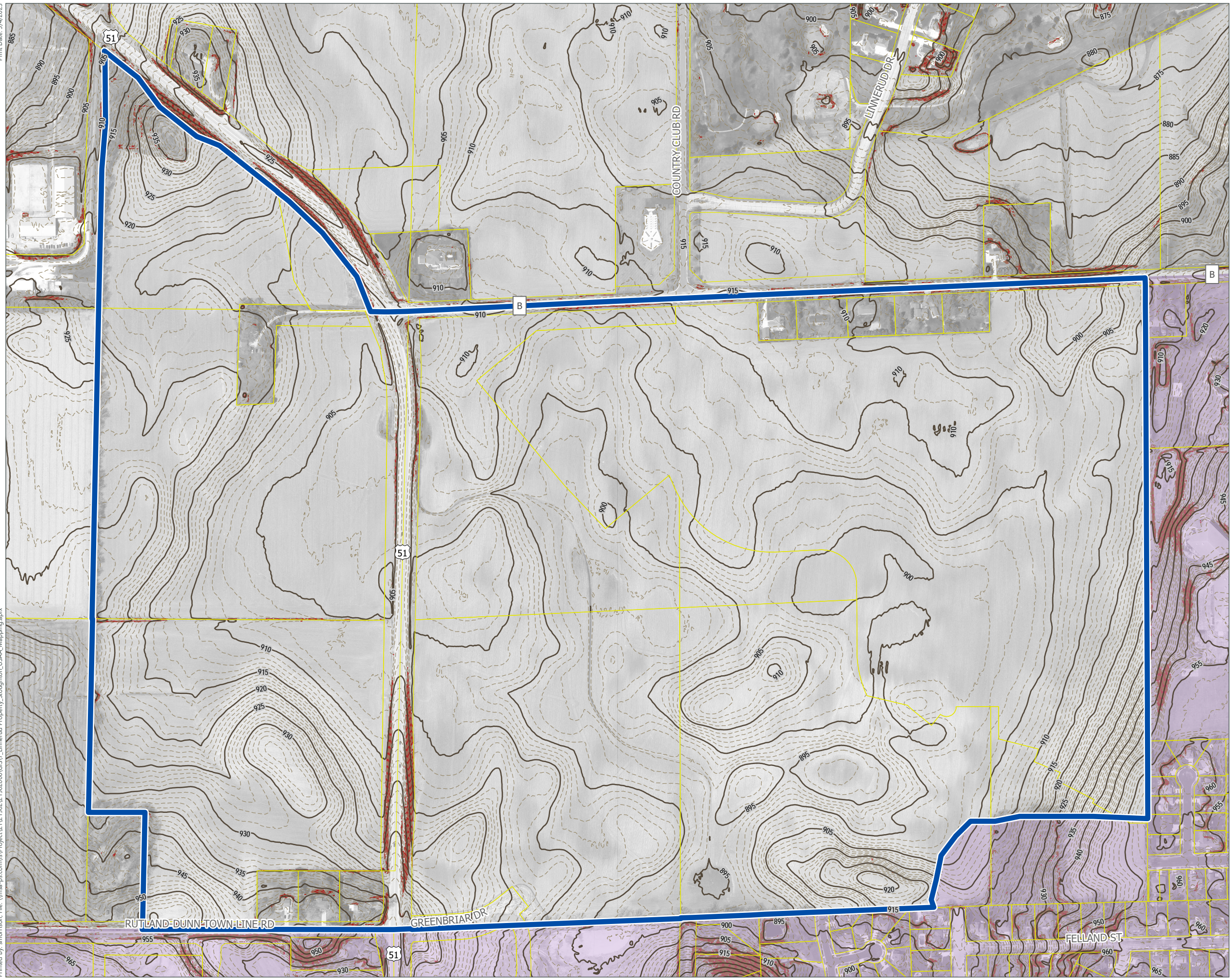
Map 4.1B Woodlands

USH 51 and CTH B Developments

City of Stoughton
Dane County, WI

-  Urban Service Area Amendment Boundary
-  Existing Urban Service Area
-  Parcel Boundary
-  Woodlands (2.6 Acres)

Data Sources:
Dane County GIS (2023)
Aerial: Dane County (2022)



Map 4.1C Contours & Steep Slopes

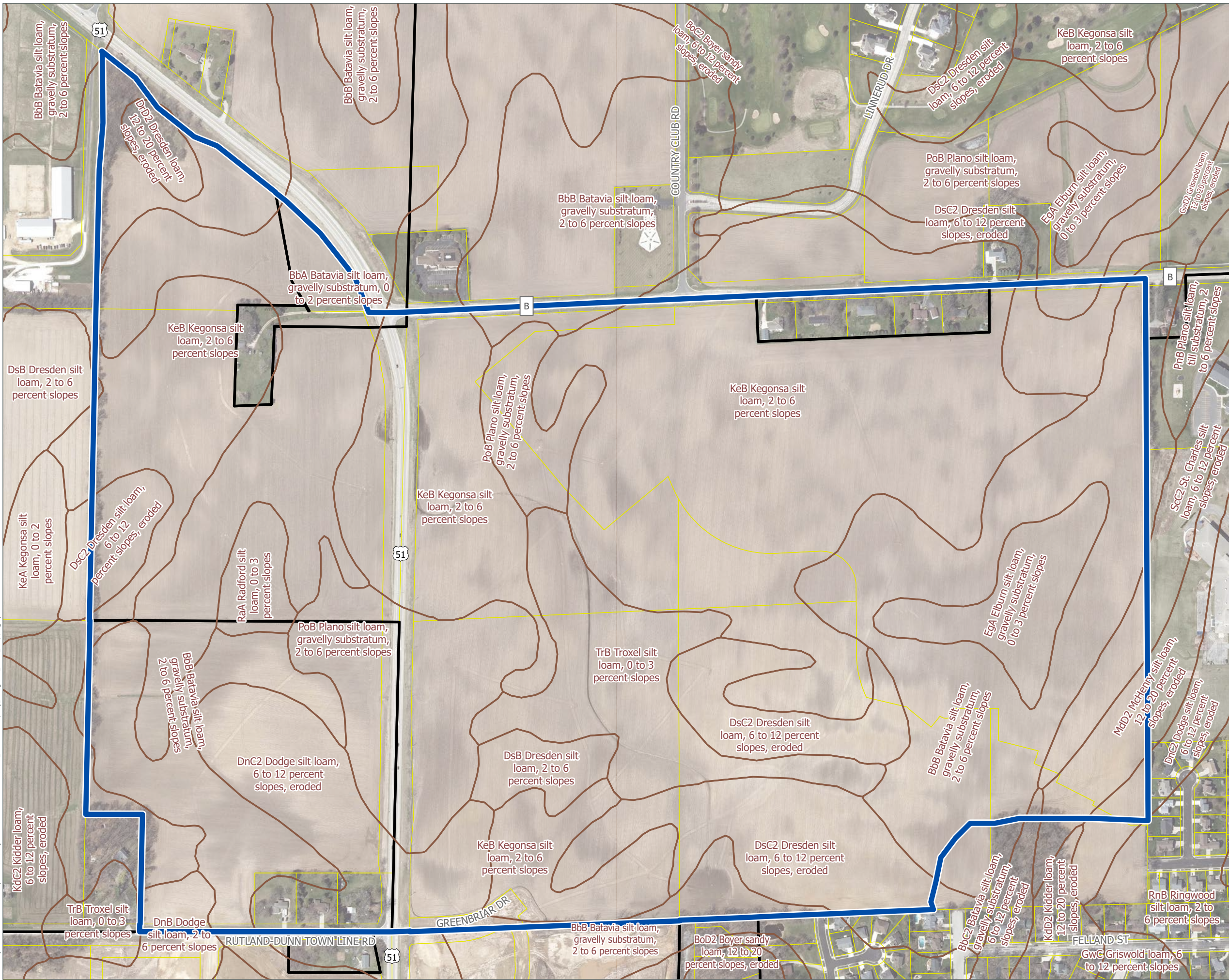
USH 51 and CTH B Developments

City of Stoughton
Dane County, WI

- Urban Service Area Amendment Boundary
- Existing Urban Service Area
- Parcel Boundary
- Intermediate Contour
- Index Contour
- Slopes Greater than 20%

Data Sources:
Dane County GIS (2023)
Aerial: Dane County (2022)
Contours: Dane County LiDAR (2017)





Map 4.1D Soil Types

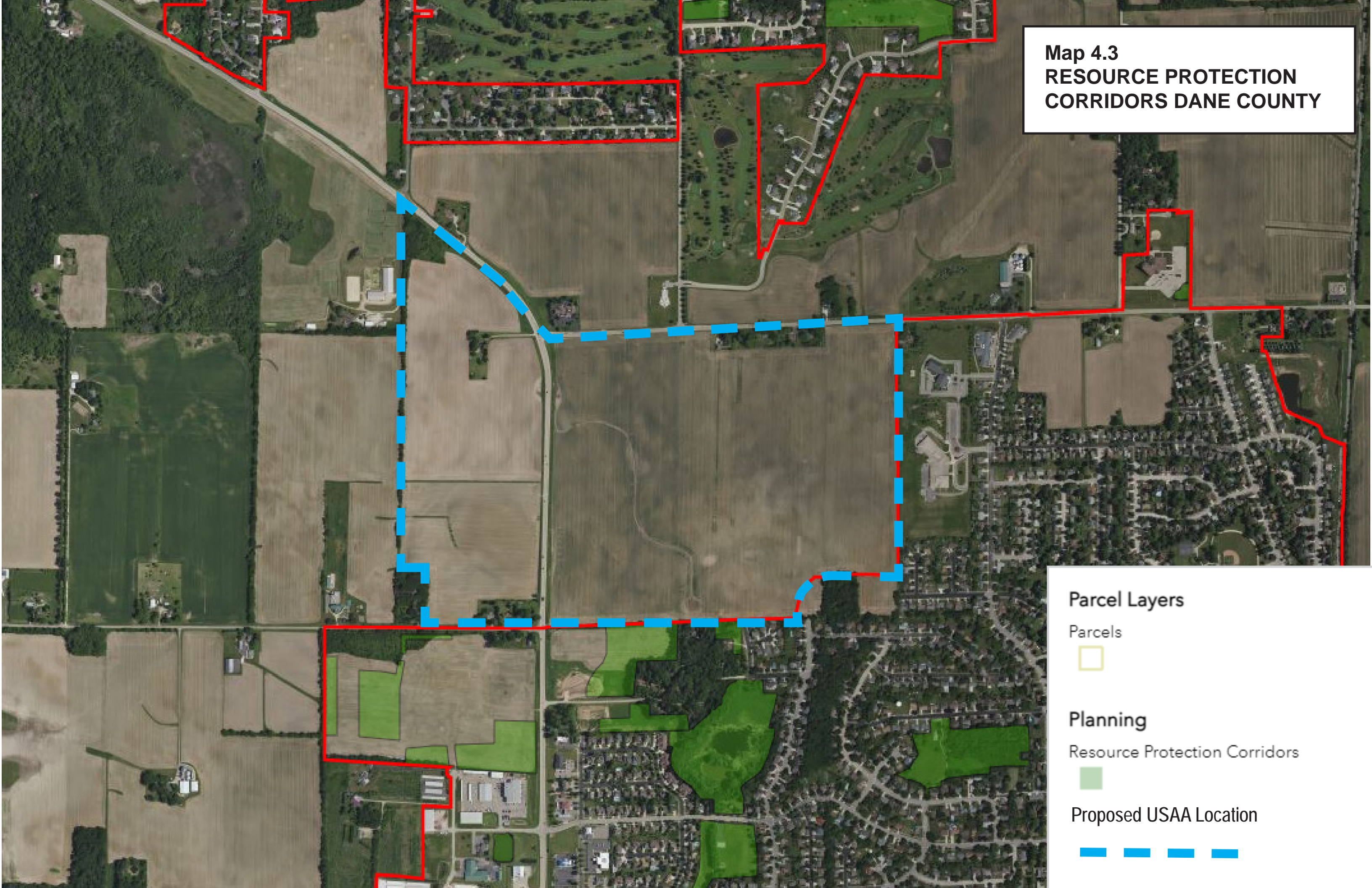
USH 51 and CTH B Developments

City of Stoughton
Dane County, WI

- Urban Service Area Amendment Boundary
- NRCS Soil Type
- Municipal Boundary
- Parcel Boundary

Data Sources:
Dane County GIS (2023)
Aerial: Dane County (2022)
Soils: NRCS (2022)

**Map 4.3
RESOURCE PROTECTION
CORRIDORS DANE COUNTY**



Parcel Layers

Parcels



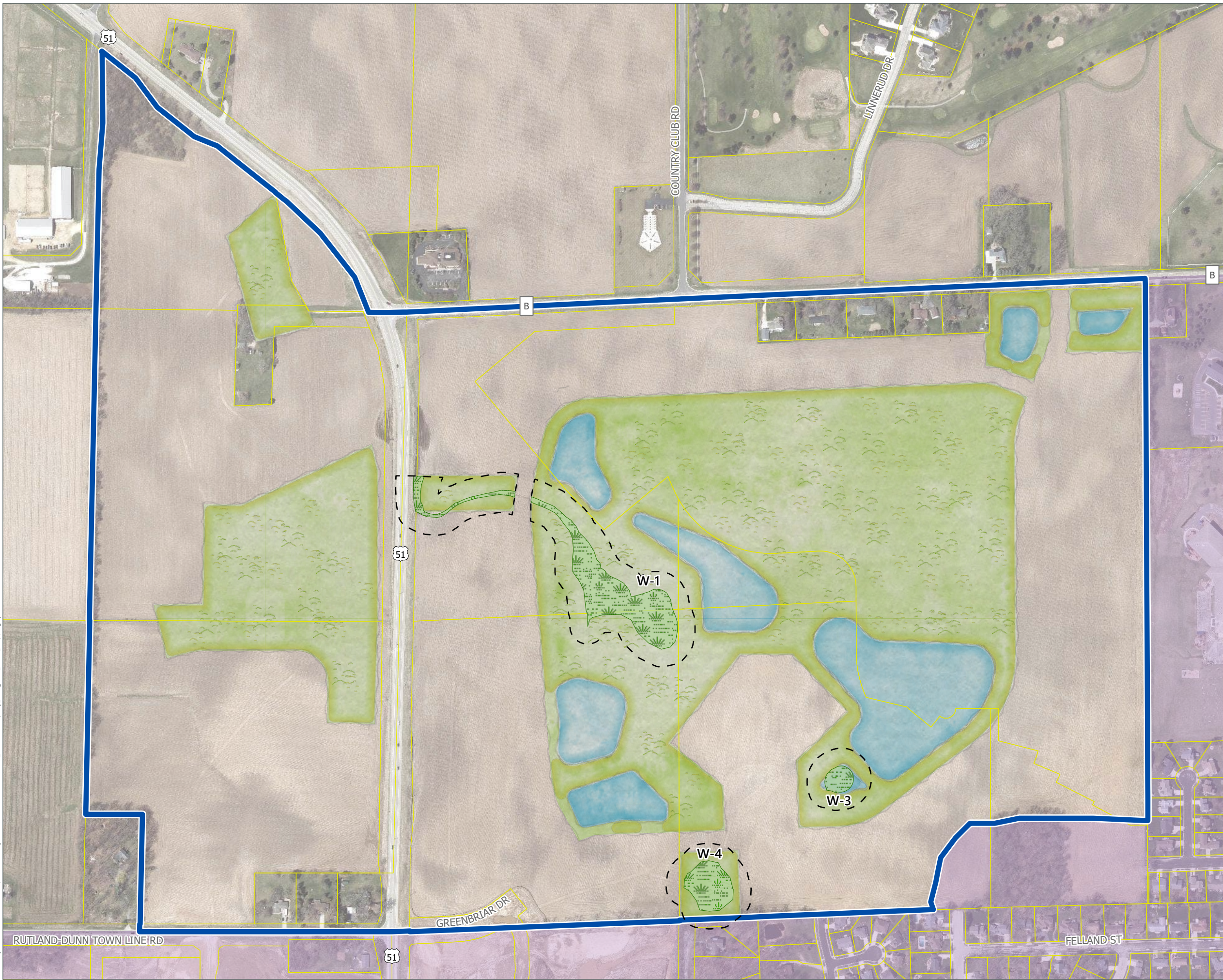
Planning

Resource Protection Corridors



Proposed USAA Location





Map 4.4 Proposed Environmental Corridors

USH 51 and CTH B Developments

City of Stoughton
Dane County, WI

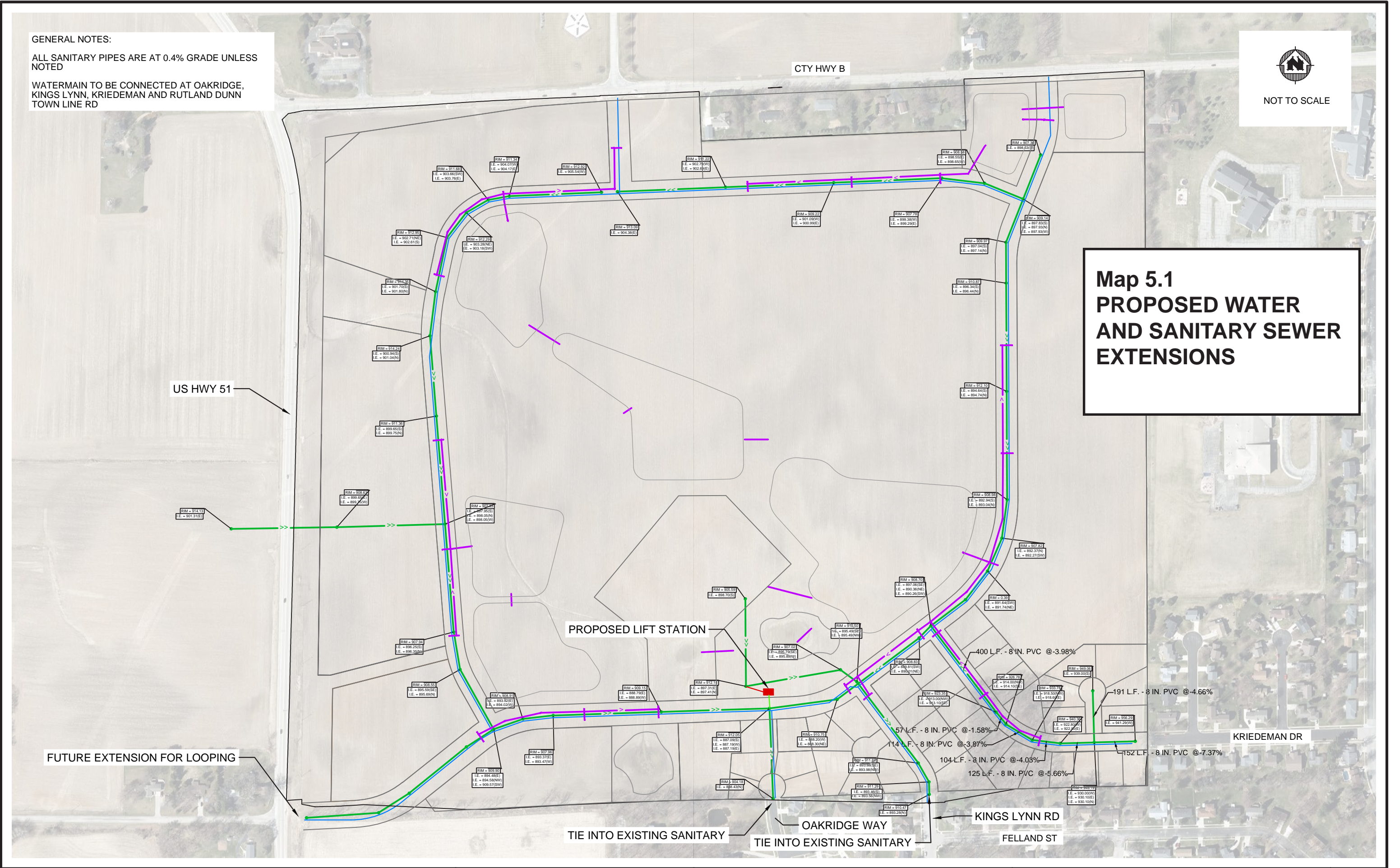
- Urban Service Area Amendment Boundary
- Existing Urban Service Area
- Parcel Boundary
- Development Outlot
- Conceptual Stormwater Basin
- 75-ft Wetland Buffer
- Existing Wetland To Remain

Data Sources:
Aerial: Dane County (2020)
Contours: Dane County LiDAR (2017)

GENERAL NOTES:
ALL SANITARY PIPES ARE AT 0.4% GRADE UNLESS NOTED
WATERMAIN TO BE CONNECTED AT OAKRIDGE, KINGS LYNN, KRIEDEMAN AND RUTLAND DUNN TOWN LINE RD



Map 5.1
PROPOSED WATER
AND SANITARY SEWER
EXTENSIONS



Wetland and Waterway Delineation Report

Date: May 26, 2022

TRC Project No. 492741.0000.0000

Stoughton Trailers

Southeast of County Road B & State Highway 51
Dane County, Stoughton, Wisconsin, 53589

Prepared For:

Harwood Engineering Consultants
255 North 21st Street
Milwaukee, WI 53233

Prepared By:

Amanda Larsen
WDNR Assured Wetland Delineator
TRC Environmental Corporation
6737 W Washington St., Suite 2100
West Allis, WI 53214



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Appendix B:	Off-site Hydrology Review
Appendix C:	Antecedent Precipitation Data/WETS Analysis
Appendix D:	Wetland and Waterway Delineation Map
Appendix E:	Wetland Determination Data Forms
Appendix F:	Professional Opinion on Wetland Susceptibility

1.0 Introduction

On behalf of Harwood Engineering Consultants (Harwood), TRC Environmental Corporation (TRC) conducted a wetland and waterway delineation within a designated Study Area within the agricultural field located southeast of County Road B & State Highway 51 (Figure 1, Appendix A). The Study Area was approximately 181 acres and located in Section 31, Township 6 North, Range 11 East in the City of Stoughton, Dane County, Wisconsin.

Landowner's Name and Contact Information:

Greenbriar Farms, LTD Partnership
754 US Highway 51 E
Stoughton, WI 53589

The purpose of this wetland and waterway delineation was to determine the current location and extent of wetlands and waterways within a designated Study Area for proposed development of the area. Our study is presented here in terms of methodology, results, and conclusions.

The wetland and waterway delineation field investigation was conducted by TRC WDNR Assured Wetland Delineator Amanda Larsen on May 9, 2022. Amanda Larsen was the lead investigator and is the author of this report.

1.1 Statement of Qualifications

TRC has extensive experience managing and conducting wetland delineations across the United States. TRC's biologists and ecologists have been trained to properly and consistently apply the methods set forth in the 1987 Corps of Engineers Wetland Delineation Manual and applicable regional supplements. They have direct experience identifying and documenting indicators of hydrophytic vegetation, wetland hydrology, and hydric soil and are experienced in dealing with naturally problematic and disturbed conditions.

TRC's large natural resources staff have the capability to coordinate wetland survey teams to meet fast-track project schedules and satisfy the challenges of complex or controversial projects.

Ms. Amanda Larsen, WDNR Assured Wetland Delineator and Senior Biologist with TRC and has over ten years of experience working on a variety of natural resource projects throughout the United States. She specializes in conducting wetland delineations and assessments, biological surveys, water monitoring, habitat restoration, and invasive species control. Ms. Larsen has a B.S. degree in Conservation and Environmental Science from UW-Milwaukee with a focus on water resources. She has taken the following technical trainings related to wetland delineation: Problematic Wetland Delineation (2018) provided by the Wetland Training Institute; Advanced Wetland Delineation (2019), Hydric Soils (2017), Basic Wetland Delineation (2013), provided by UW-La Crosse; and Significant Nexus Determination (2014) provided by the Swamp School. She also attends the Annual UW La Crosse one-day Critical Methods in wetland delineation class. Ms. Larsen is a part of the Wetland Delineation Professional Assurance Initiative of the Wisconsin Department of Natural Resources (WDNR). This means her work is assured for purposes of State of Wisconsin wetland delineations.

1.2 Agency Regulatory Authority

The wetlands and/or waterways identified in this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers (USACE), state regulation under the jurisdiction of Wisconsin Department of Natural Resources (WDNR), and local jurisdiction under county, town, city, or village.

2.0 Methods

This wetland and waterway delineation was conducted in accordance with the guidelines of the 1987 Corps of Engineers Wetland 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) and in general accordance with Wisconsin Department of Natural Resources guidelines. National Wetland Indicator status and taxonomic nomenclature is referenced from 2020 Corps of Engineers National Wetland Plant List Version 3.5. National Wetland Indicator status is based on the Northcentral and Northeast Region, Northern Great Lakes sub-region. Indicators of hydric soil are based on the Field Indicators of Hydric Soils in the United States guide Version 8.2 (USDA NRCS 2018). This report has also been prepared in accordance with the guidelines set forth in the “Guidance for Submittal of Delineation Reports to the St. Paul District Corps of Engineers and the Wisconsin Department of Natural Resources” document issued March 4, 2015.

2.1 Off-Site Review

Prior to conducting fieldwork, several maps were reviewed including the United States Geological Survey (USGS) 7.5' Quadrangle Map, Natural Resource Conservation Service (NRCS) Soil Survey Map, Wisconsin Wetland Inventory (WWI) Map, and aerial imagery. These sources were used to identify areas likely to contain wetlands and waterways.

Precipitation data from approximately 90 days prior to the field investigation were obtained from a weather station near the Study Area and compared with 30-year average precipitation data obtained from a NRCS WETS Table for the County where the Study Area was located to determine if antecedent hydrologic conditions at the time of the site visit were normal, wetter, or drier than the normal range.

An aerial imagery and Farm Service Agency (FSA) crop slide review was conducted for agricultural areas having been farmed within recent years (typically the last 3-5 years). The review was conducted using the guidelines described in the Hydrology Tools for Wetland Identification and Analysis, Engineering Field Handbook, Chapter 19 (USDA Natural Resources Conservation Service, 2015). Interpretation of the aerial imagery and labels for signatures is also based in part on the guidance provided in the document Guidance for Offsite Hydrology/Wetland Determinations (U.S. Army Corps of Engineers and Minnesota Board of Water & Soil Resources, July 1, 2016).

2.2 On-Site Field Investigation

Areas within the Study Area which may support wetlands, identified as wetlands on reviewed maps, and/or have wetland hydrology signatures were evaluated in the field by TRC WDNR Assured Wetland Delineator Amanda Larsen on May 9, 2022. Sample points were located in areas exhibiting wetland and

upland characteristics to document the presence and/or absence of wetlands and to provide support for the delineated wetland boundaries. At each sample point, data were collected to document the vegetation and hydrophytic vegetation indicators, soil profile and hydric soil indicators, and wetland hydrology indicators.

Plant species were identified at each sample point and their wetland indicator status; obligate wetland (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), or upland (UPL); was determined by referencing the 2020 Corps of Engineers National Wetland Plant List Version 3.5; Northcentral and Northeast Region. Soil pits were dug to the depth needed to document a hydric soil indicator or confirm the absence of indicators. Soil color was determined using a Munsell soil color chart. The sample point plots and soil pits were evaluated for presence of wetland hydrology indicators.

The wetland boundaries were delineated and staked using wire pin flags and when needed flagging tape. Wetland boundaries were generally determined by distinct to subtle differences in the abundance of hydrophytic vegetation and non-hydrophytic vegetation, presence versus absence of hydric soil indicators, and presence versus absence of wetland hydrology indicators.

3.0 Results

3.1 Off-Site Review

The County Contour Map (Appendix A, Figure 2) showed elevations ranging from 895 to 959 above sea level. Based on Figure 2, the site has rolling topography with multiple high and low areas throughout the site. Surface water would generally flow from the east, west and north south and toward the southcentral portion of the site where the lowest elevations are mapped, except for the northeast corner, where it appears surface water would flow north.

According to the NRCS Soil Survey map (Appendix A, Figure 3) 13 mapped soil units are located within the Study Area. The soils mapped within the Study Area are listed on Table 1 below.

Table 1 Mapped Soils

Map Unit Symbol	Soil Series Name	Drainage Class	Hydric Rating	% of Study Area
BbB	Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	Well drained	0	19.4
BbC2	Batavia silt loam, gravelly substratum, 6 to 12 percent slopes, eroded	Well drained	0	0.6
DnC2	Dodge silt loam, 6 to 12 percent slopes, eroded	Well drained	0	3.0
DsB	Dresden silt loam, 2 to 6 percent slopes	Well drained	0	1.8
DsC2	Dresden silt loam, 6 to 12 percent slopes, eroded	Well drained	0	12.8

Table 1 Mapped Soils

EgA	Elburn silt loam, gravelly substratum, 0 to 3 percent slopes	Somewhat poorly drained	10	4.0
KdD2	Kidder loam, 12 to 20 percent slopes, eroded	Well drained	0	0.4
KeB	Kegonsa silt loam, 2 to 6 percent slopes	Well drained	0	37.5
MdD2	McHenry silt loam, 12 to 20 percent slopes, eroded	Well drained	0	2.1
PoB	Plano silt loam, gravelly substratum, 2 to 6 percent slopes	Well drained	0	8.1
RnB	Ringwood silt loam, 2 to 6 percent slopes	Well drained	0	0.6
ScC2	St. Charles silt loam, 6 to 12 percent slopes, eroded	Well drained	0	1.5
TrB	Troxel silt loam, 0 to 3 percent slopes	Moderately well drained	0	8.1

The Wisconsin Wetland Inventory (WWI), Waterways, and Floodplains map (Appendix A, Figure 4) depicted no wetlands, waterways or floodplains within the Study Area.

A review of aerial imagery from 1980 through 2021 (Appendix B) shows the Study Area as an active agricultural field with paved roadways to the north and west and residential use to the east and south. In 1983 the land to the south began to be developed as a residential neighborhood and expanded west along the southern boundary through 2021. In 1994 the agricultural land adjacent to the southeast corner of the Study area is under development for a residential neighborhood. Development along the eastern edge continues north through 1999.

An aerial imagery and Farm Service Agency (FSA) crop slide review was conducted to evaluate areas within the Study Area that are currently farmed. Aerial images and crop slides ranging from 1980-2021 were examined by TRC Scientist Amanda Larsen on May 6, 2022. Four areas (A, B, C, and D), which showed consistent wetness signatures, were further evaluated and are discussed below. All images and slides reviewed, and review forms are included in Appendix B.

Area A displayed wetness signatures 31% (5 out of 16) of the years with normal climate conditions preceding the date of the imagery.

Area B displayed wetness signatures 25% (4 out of 16) of the years with normal climate conditions preceding the date of the imagery.

Area C displayed wetness signatures 43% (7 out of 16) of the years with normal climate conditions preceding the date of the imagery.

Area D displayed wetness signatures 12% (2 out of 16) of the years with normal climate conditions preceding the date of the imagery.

Prior to conducting the field visit, antecedent precipitation data were analyzed. Data were obtained from the same weather and WETS station (Stoughton WWTP (WI) USC00478229) and compared. The precipitation data for the 90-day period prior to the field visit (Appendix B, Table 2) were entered into a WETS analysis worksheet (Appendix B, Table 3) to weight the information from each preceding month to analyze hydrologic conditions. Based on this analysis, the antecedent hydrologic conditions were considered to be within a normal range, suggesting that climatic/hydrologic conditions were normal for this time of year. The most recent rainfall event prior to the site visit was 0.44 inches, which occurred on from May 3-4, 2022. Precipitation for the 14 days prior to the site visit was 1.25 inches.

3.2 On-Site Field Investigation

3.2.1 Site Description

The Study Area was primarily an active agricultural field with a small area of upland woods that had rolling topography. Surface water in the northeast portion of the Study Area would flow north and off-site through a culvert under County Road B. Surface water in the southeast and southwest portions of the Study Area would flow toward the southcentral portion of the Study Area, and surface water in the northcentral and northwestern portion of the Study Area would flow south through an upland drainage swale.

Due to the prevalence of row-cropping agricultural activities, the site lacked normal circumstances and had significant disturbance to vegetation. These conditions required that procedures from Chapter 5 – Difficult Wetland Situations in the Northcentral and Northeast Region from the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0, 2012), be followed in making a wetland versus upland determination.

Chapter 5 procedures that were followed primarily consisted of applying a two-parameter approach and basing the determination on absence/presence of wetland hydrology and / or hydric soil in areas where the unmanaged vegetation condition could not be determined.

3.2.2 Uplands

Upland plant communities observed in the Study Area included woodland, mowed roadway right-of-way, and active agricultural land. The upland sample points discussed below were paired with wetland sample points to document the delineated wetland boundaries.

3.2.3 Wetlands

Four wetlands (W-1 through W-4) were delineated. The delineated wetland boundaries and sample points are shown on a map (Exhibit A) in Appendix D. Data and photographs were collected and recorded on Wetland Determination Data Forms at 17 sample points to document wetland and upland locations (Appendix E).

Wetland W-1 (Fresh (Wet) Meadow (Partially Farmed))

Wetland W-1 was approximately 2.89 acres within the Study Area and consisted of a partially farmed Fresh (Wet) Meadow plant community. Wetland W-1 was contained entirely within the Study Area. Three wetland sample points (SP-05, SP-08, and SP10) were taken within W-1 and three upland sample points (SP-06, SP-09, SP-11) were taken in adjacent upland areas.

Dominant herbaceous vegetation within W-1 consisted of *Phalaris arundinacea* (reed canary grass) and *Typha angustifolia* (narrow leaved-cattail) at SP-08. No vegetation was present at SP-05 or SP-10 due to agricultural activities, and no other strata of vegetation were present at any of the sample points. Primary indicators of wetland hydrology within W-1 consisted of a High-Water Table (A2), Saturation (A3), Sediment Deposits (B2), Drift Deposits (B3), Algal Mat or Crust (B4), Recent Iron Reduction in Tilled Soils (C6), and secondary indicators consisted of Drainage Patterns (B10), Saturation on Aerial Imagery (C9), Geomorphic Position (D2), and a positive FAC-Neutral Test (D5). Indicators of hydric soils included Depleted Matrix (F3) and Redox Dark Surface (F6).

Wetland W-1 received surface water from west of the State Highway 51 and north of County Road B through culverts under the road. Excessive surface water from W-1 would flow south through the upland drainage swale and expel into wetland W-4. The boundary of wetland W-1 was based on subtle to distinct topographic breaks, the boundary between hydrophytic and non-hydrophytic vegetation, the boundary between the presence and absence of wetland hydrology indicators, and the boundary between hydric and non-hydric soil.

Wetland W-2 (Farmed Fresh (wet) Meadow wetland)

Wetland W-2 was approximately 0.39 acres within the Study Area and consisted of a farmed Fresh (Wet) Meadow plant community. Wetland W-2 was contained entirely within the Study Area. One wetland sample point (SP-12) was taken within W-2 and one upland sample point (SP-13) was taken in an adjacent upland area.

No vegetation was present within wetland W-2 due to agricultural activities. Primary indicators of wetland hydrology within W-2 consisted of primary indicator Drift Deposits (B3), and secondary indicators included Drainage Patterns (B10), Saturation on Aerial Imagery (C9), and Geomorphic Position (D2). Hydric soil indicator Redox Dark Surface (F6) was met.

Wetland W-2 may receive surface water from the upland drainage swale during excessive precipitation or melt events, and through precipitation. The boundary of wetland W-2 was based on distinct topographic breaks, the boundary between the presence and absence of wetland hydrology indicators, and the boundary between hydric and non-hydric soil.

Wetland W-3 (Farmed Fresh (wet) Meadow wetland)

Wetland W-3 was approximately 0.81 acres within the Study Area and consisted of a farmed Fresh (Wet) Meadow plant community. Wetland W-3 was contained entirely within the Study Area. One wetland sample point (SP-14) was taken within W-3 and one upland sample point (SP-13) was taken in an adjacent upland area.

No vegetation was present within wetland W-3 due to agricultural activities. Primary indicators of wetland hydrology within W-3 consisted of primary indicator Drift Deposits (B3), and secondary indicators included Surface Soil Cracks (B6), Drainage Patterns (B10), Saturation on Aerial Imagery (C9), and Geomorphic Position (D2). Hydric soil indicator Depleted Matrix (F3) was met.

Wetland W-3 hydrology appears to be sustained through overflow from W-2 and surrounding upland areas, and precipitation. The boundary of wetland W-3 was based on distinct topographic breaks, the boundary between the presence and absence of wetland hydrology indicators, and the boundary between hydric and non-hydric soil.

Wetland W-4 (Farmed Fresh (wet) Meadow wetland)

Wetland W-4 was approximately 0.73 acres within the Study Area and consisted of a farmed Fresh (Wet) Meadow plant community. Wetland W-4 was contained entirely within the Study Area. One wetland sample point (SP-15) was taken within W-4 and one upland sample point (SP-16) was taken in an adjacent upland area.

No vegetation was present within wetland W-4 due to agricultural activities. Primary indicators of wetland hydrology within W-4 consisted of Drift Deposits (B3) and Water-Stained Leaves (B9), and secondary indicators included Surface Soil Cracks (B6), Drainage Patterns (B10), Saturation on Aerial Imagery (C9), and Geomorphic Position (D2). Hydric soil indicators Depleted Below Dark Surface (A11) and Redox Dark Surface (F6) were met.

Wetland W-4 receives surface water from the upland drainage swale, run-off from the surrounding upland areas and precipitation. The boundary of wetland W-4 was based on subtle to distinct topographic breaks, the boundary between the presence and absence of wetland hydrology indicators, and the boundary between hydric and non-hydric soil.

3.2.4 Other Aquatic Resources

No other aquatic resources were located within the Study Area.

3.2.5 Professional Opinion On Wetland Susceptibility Per NR 151

Table 4 in Appendix F lists a professional opinion on wetland susceptibility, based on a request by the WDNR to do so per revised NR 151 guidance (Guidance #3800-2015-02). Please note that the final determination of wetland susceptibility rests with the WDNR.

4.0 Conclusions

Based on the wetland delineation completed by TRC, four wetlands (W-1, W-2, W-3 and W-4) were delineated totaling 4.82 acres of wetlands within the 181-acre Study Area. No other aquatic resources were observed within the Study Area.

Wetlands and other aquatic resources delineated and identified in this report are a professional finding based on current regulatory guidelines published by the USACE and WDNR at the time the resources

were delineated. Unknown and future conditions that affect observations of field indicators or change in interpretation of regulatory policy or methods may modify future findings.

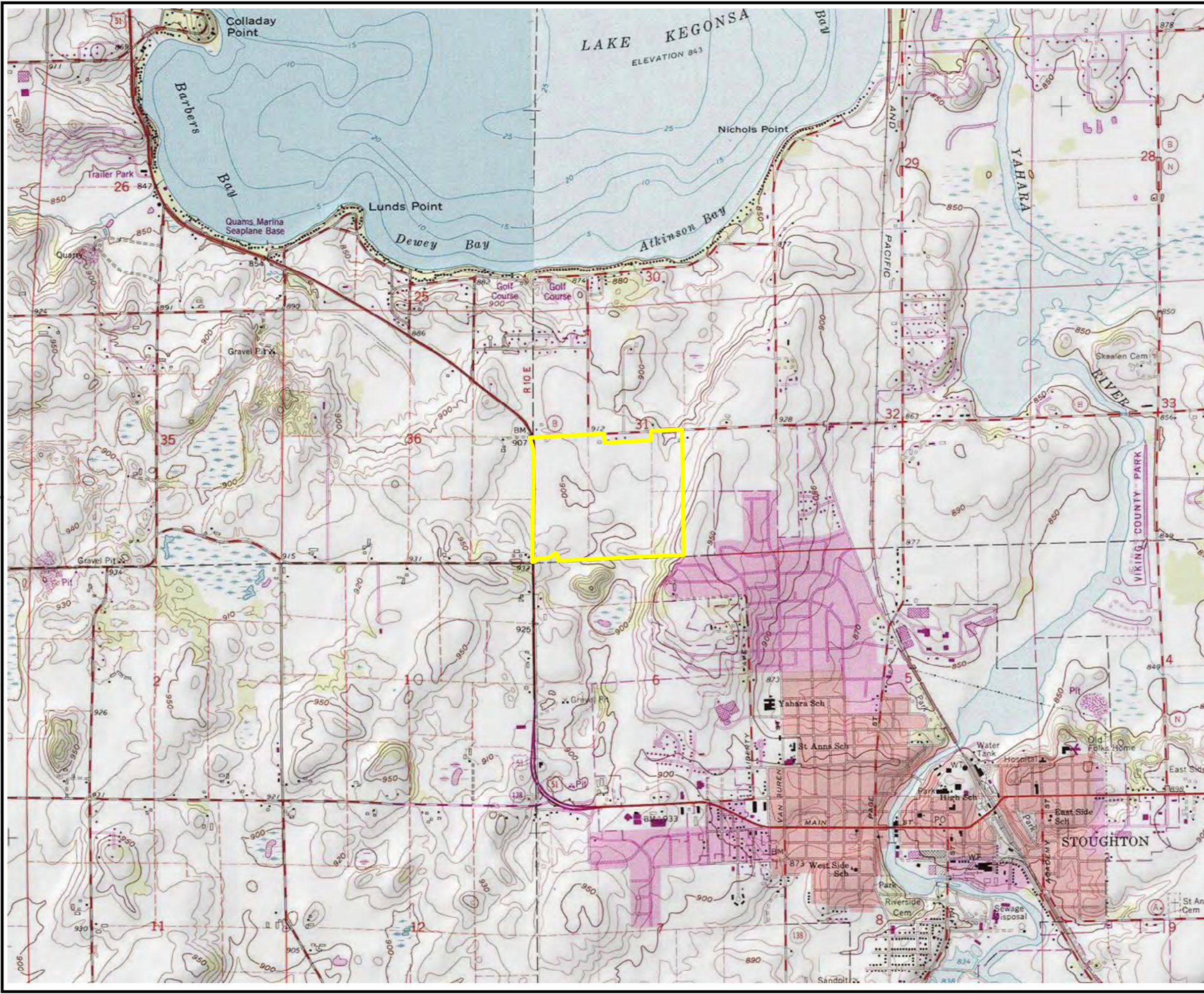
The ultimate authority to determine the location of the wetland boundary and jurisdictional authority over the wetlands and other aquatic resources identified in this report resides with the USACE and WDNR. Decisions made by staff of these regulatory agencies may result in modifications to the location of the wetland or other aquatic resource boundaries shown in this report. In addition, the USACE and WDNR have jurisdictional authority to determine which features are exempt from regulation or non-jurisdictional. If the client proposes to modify a potentially exempt or non-jurisdictional feature, a WDNR Artificial Determination Exemption and USACE Approved Jurisdictional Determination (AJD) would be needed. Furthermore, municipalities, townships and counties may have local zoning authority over certain areas or types of wetlands and waterways. The determination that a wetland or waterway is subject to regulatory jurisdiction is made independently by the agencies.

Any activity in a delineated wetland or below the Ordinary High-Water Mark of other aquatic resources may require USACE and WDNR permits, and local government permits. If the Client proceeds to change, modify or utilize the property in question without obtaining authorization from the appropriate regulatory agency, it will be done at the Client's own risk and TRC Environmental Corporation shall not be responsible or liable for any resulting damages.

5.0 References

- Charts, Munsell Soil Color. 1994. "Munsell color." Macbeth Division of Kollmorgen Instruments Corporation, New Windsor, NY 12553.
- cli-MATE: Online Data Portal. Midwestern Regional Climate Center. Purdue University.
[cli-MATE: MRCC Application Tools Environment \(purdue.edu\)](#) access on: May 8, 2022
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- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
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- U.S. Army Corps of Engineers and Minnesota Board of Water & Soil Resources (BWSR). July 1, 2016. Guidance for Offsite Hydrology/Wetland Determinations.
- U.S. Army Corps of Engineers 2020. National Wetland Plant List, version 3.5 (Web address: <http://wetland-plants.usace.army.mil/>) U.S. Army Corps of Engineers, Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH
- U.S. Army Corps of Engineers. 2015. St. Paul District Regulatory. Special Public Notice. Issued: March 4, 2015. Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources.
- U.S. Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*, ed. J.S. Wakeley, R. W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2018. Field Indicators of Hydric Soils in the United States, Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.
- USDA Natural Resources Conservation Service Web Soil Survey (Web Address: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>)
- USDA NRCS Climate Analysis by County Web Site (WETS). (Web Address: <http://www.wcc.nrcs.usda.gov/climate/wetlands.html>)
- Wisconsin Department of Natural Resources, 2016. Surface Water Data Viewer:
<http://dnrmaps.wi.gov/sl/?Viewer=SWDV>

Appendix A: Figures



LEGEND

STUDY AREA

NOTES
1. BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

WISCONSIN OVERVIEW

MN MI WI IA IL

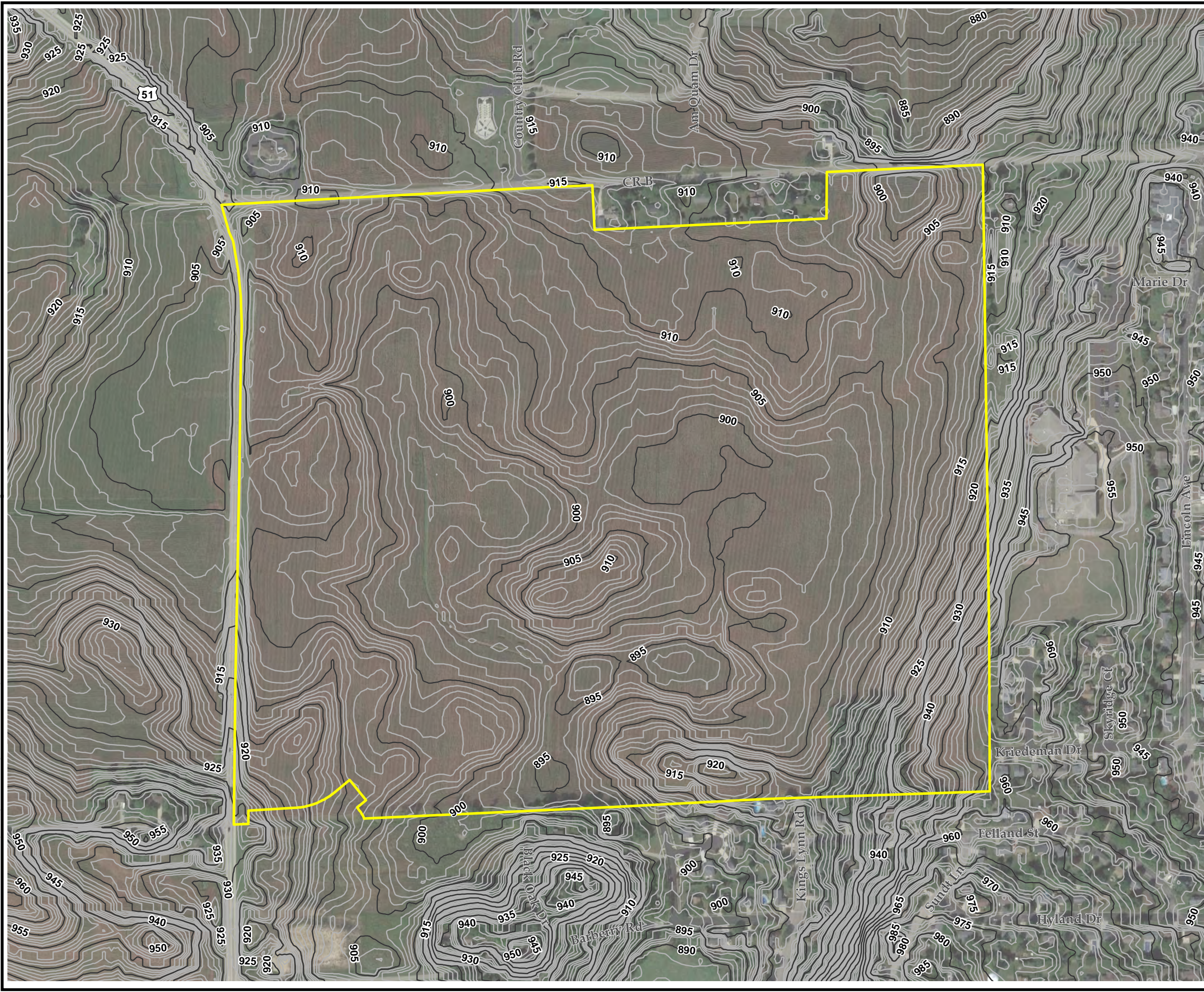
L. Superior Lake Michigan

1" = 2,000'
1:24,000

PROJECT: HARWOOD ENGINEERING CONSULTANTS STOUGHTON TRAILERS STOUGHTON, DANE COUNTY, WISCONSIN	
TITLE: SITE LOCATION MAP	
DRAWN BY: M. OPEL	PROJ. NO.: 492741
CHECKED BY: A. LARSEN	FIGURE 1
APPROVED BY: R. LONDRE	
DATE: MAY 2022	

708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trccompanies.com

FILE NO.: WDR_Fig01_SLM.mxd



LEGEND

STUDY AREA

5' INDEX CONTOUR

1' INTERMEDIATE CONTOUR

NOTES

1. BASE MAP FROM GOOGLE EARTH, 2021.

2. CONTOURS DERIVED FROM USGS NATIONAL ELEVATION DATASET (NED) DIGITAL ELEVATION MODEL, 1/3RD ARCSECOND RESOLUTION.

1" = 400'
1:4,800

PROJECT: **HARWOOD ENGINEERING CONSULTANTS
STOUGHTON TRAILERS
STOUGHTON, DANE COUNTY, WISCONSIN**

TITLE: **CONTOUR MAP**

DRAWN BY: M. OPEL

CHECKED BY: A. LARSEN

APPROVED BY: R. LONDRE

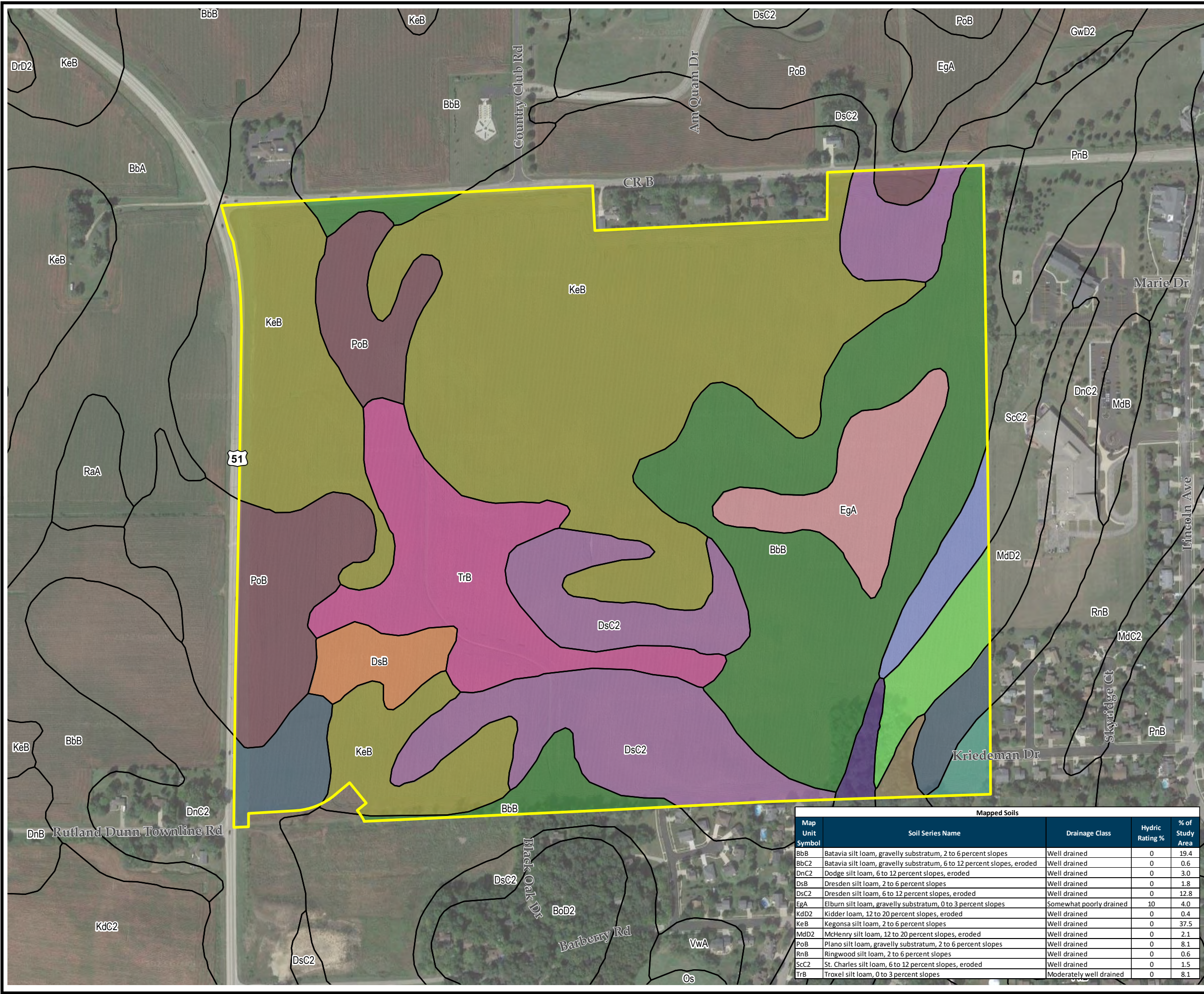
DATE: MAY 2022

PROJ. NO.: 492741

FIGURE 2

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FILE NO.: WDR_Fig02_Topo.mxd



LEGEND

STUDY AREA

SOILS CLASSIFICATION

BATAVIA SILT LOAM, GRAVELLY SUBSTRATUM, 2 TO 6 PERCENT SLOPES

BATAVIA SILT LOAM, GRAVELLY SUBSTRATUM, 6 TO 12 PERCENT SLOPES, ERODED

DODGE SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED

DRESDEN SILT LOAM, 2 TO 6 PERCENT

DRESDEN SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED

ELBURN SILT LOAM, GRAVELLY SUBSTRATUM, 0 TO 3 PERCENT SLOPES

KEGONSA SILT LOAM, 2 TO 6 PERCENT

KIDDER LOAM, 12 TO 20 PERCENT SLOPES, ERODED

MCHENRY SILT LOAM, 12 TO 20 PERCENT SLOPES, ERODED

PLANO SILT LOAM, GRAVELLY SUBSTRATUM, 2 TO 6 PERCENT SLOPES

RINGWOOD SILT LOAM, 2 TO 6 PERCENT

ST. CHARLES SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED

TROXEL SILT LOAM, 0 TO 3 PERCENT

NOTES

1. BASE MAP FROM GOOGLE EARTH, 2021.

2. SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.

1" = 400'

1:4,800

PROJECT:

HARWOOD ENGINEERING CONSULTANTS
STOUGHTON TRAILERS
STOUGHTON, DANE COUNTY, WISCONSIN

TITLE:

NRCS SOILS MAP

DRAWN BY: M. OPEL

PROJ. NO.: 492741

CHECKED BY: A. LARSEN

APPROVED BY: R. LONDRE

DATE: MAY 2022

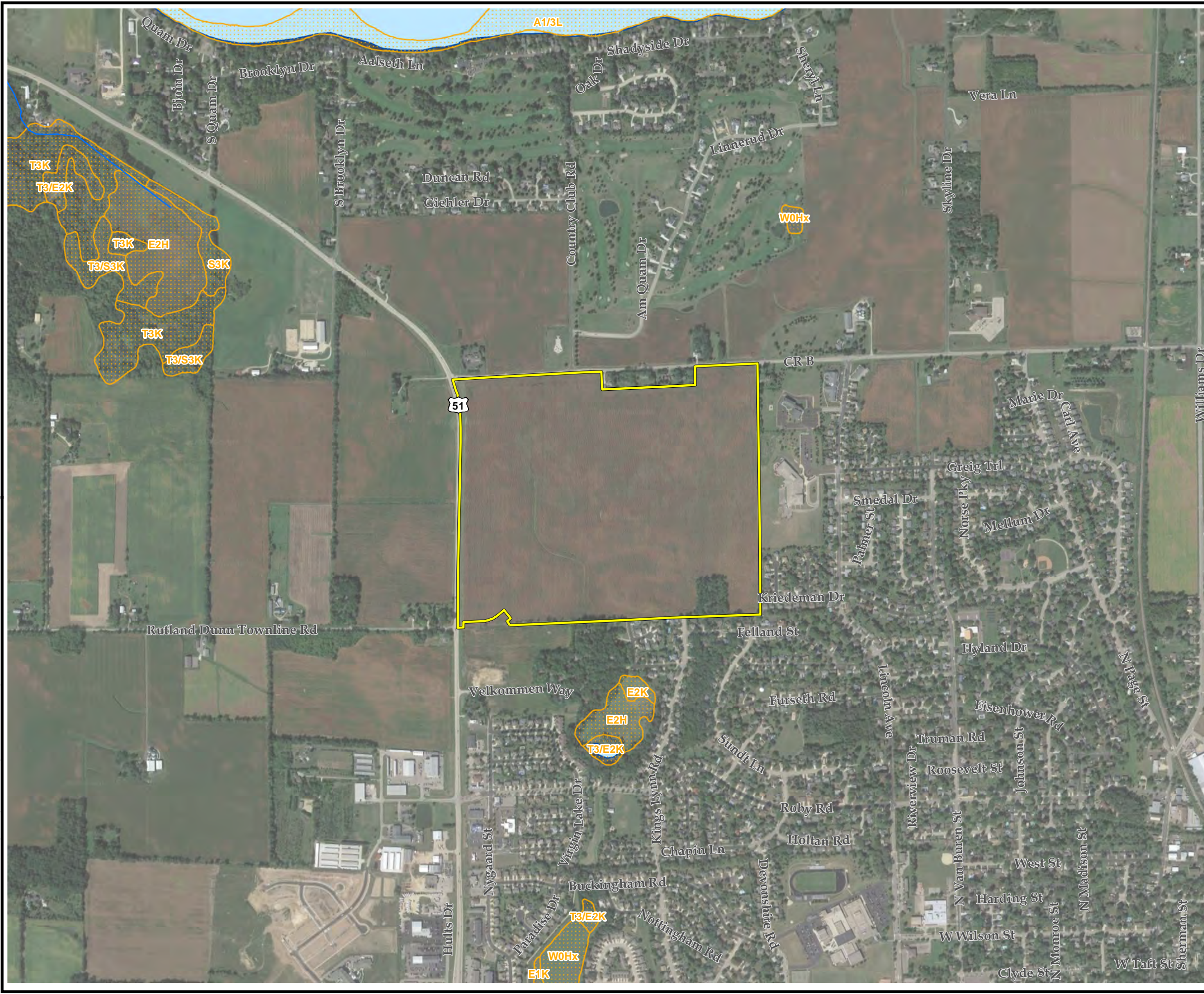
FIGURE 3

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FILE NO.:

WDR_Fig03_Soils.mxd

Mapped Soils				
Map Unit Symbol	Soil Series Name	Drainage Class	Hydric Rating %	% of Study Area
BbB	Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	Well drained	0	19.4
BbC2	Batavia silt loam, gravelly substratum, 6 to 12 percent slopes, eroded	Well drained	0	0.6
DnC2	Dodge silt loam, 6 to 12 percent slopes, eroded	Well drained	0	3.0
DsB	Dresden silt loam, 2 to 6 percent slopes	Well drained	0	1.8
DsC2	Dresden silt loam, 6 to 12 percent slopes, eroded	Well drained	0	12.8
EgA	Elburn silt loam, gravelly substratum, 0 to 3 percent slopes	Somewhat poorly drained	10	4.0
KdD2	Kidder loam, 12 to 20 percent slopes, eroded	Well drained	0	0.4
KeB	Kegonsa silt loam, 2 to 6 percent slopes	Well drained	0	37.5
MdD2	McHenry silt loam, 12 to 20 percent slopes, eroded	Well drained	0	2.1
PoB	Plano silt loam, gravelly substratum, 2 to 6 percent slopes	Well drained	0	8.1
RnB	Ringwood silt loam, 2 to 6 percent slopes	Well drained	0	0.6
ScC2	St. Charles silt loam, 6 to 12 percent slopes, eroded	Well drained	0	1.5
TrB	Troxel silt loam, 0 to 3 percent slopes	Moderately well drained	0	8.1



LEGEND

STUDY AREA

NHD WATERBODY

NHD STREAM

WWI WETLAND

NOTES

1. BASE MAP FROM GOOGLE EARTH, 2021.

2. STREAM AND WATERBODY DATA ACQUIRED FROM NATIONAL HYDROGRAPHY DATASET (NHD).

3. WETLAND DATA FROM WISCONSIN DNR, WISCONSIN WETLAND INVENTORY (WWI).

4. NO FEMA FLOODPLAINS PRESENT IN THIS MAP EXTENT.

1" = 1,000'

1:12,000

PROJECT:

**HARWOOD ENGINEERING CONSULTANTS
STOUGHTON TRAILERS
STOUGHTON, DANE COUNTY, WISCONSIN**

TITLE:

**WETLANDS, WATERWAYS, AND
FLOODPLAINS MAP**

DRAWN BY: M. OPEL

CHECKED BY: A. LARSEN

APPROVED BY: R. LONDRE

DATE: MAY 2022

PROJ. NO.: 492741

FIGURE 4

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FILE NO.:

WDR_Fig04_Hydro.mxd

Appendix B:
Off-Site Hydrology Review

Wetland Hydrology from Aerial Imagery – Recording Form

Project Name: Stoughton Trailers

Date: 05/06/2022

County: Dane

Investigator: A. Larsen

Image Interpretation

Month/ Year	Image Source	Climate Condition (wet, dry, normal) ⁱ																
			A	B	C	D												
09/2021	USGS FSA	N	NV	NV	NV	NV												
06/2020	USGS FSA	N	NI	NI	NI	SS												
10/2018	USGS FSA	W	WS	NV	WS	WS												
09/2017	USGS FSA	W	WS	DO	DO	DO												
06/2014	USGS FSA	N	WS	WS	WS	NI												
07/2010	USGS FSA	W	WS	WS	CS	CS												
07/2008	USGS FSA	W	SW	DO	SW	DO												
07/2006	USGS FSA	N	NV	NV	NV	NV												
07/2005	USGS FSA	N	CS	CS	DO	CS												
10/2004	USGS FSA	D	SS	DO	DO	DO												
07/2003	USGS FSA	N	NI	NI	NI	NI												
07/2002	USGS FSA	N	NV	NV	NV	NV												
07/2001	USGS FSA	W	NV	NV	DO	NV												
07/2000	USGS FSA	W	DO	DO	WS	DO												
07/1999	USGS FSA	W	CS	CS	DO	CS												
07/1998	USGS FSA	W	NV	NV	DO	NV												
07/1997	USGS FSA	N	NV	NV	CS	NV												
07/1996	USGS FSA	N	DO	CS	DO	NV												
07/1995	USGS FSA	N	NV	NV	NV	NV												
07/1994	USGS FSA	N	NV	NV	NV	NV												
07/1993	USGS FSA	W	CS	NV	CS	NV												
07/1992	USGS FSA	D	NV	NV	NV	NV												
07/1991	USGS FSA	N	NV	NV	NV	NV												
07/1990	USGS FSA	N	NV	NV	NV	NV												
07/1989	USGS FSA	D	NV	NV	NV	NV												
07/1988	USGS FSA	D	NV	NV	NV	NV												
07/1987	USGS FSA	D	NV	NV	NV	NV												
07/1986	USGS FSA	D	NV	NV	NV	NV												
07/1985	USGS FSA	D	NV	NV	NV	NV												
07/1984	USGS FSA	W	DO	NV	CS	NV												
07/1983	USGS FSA	D	NV	NV	NV	NV												
07/1982	USGS FSA	N	CS	CS	DO	NV												
07/1981	USGS FSA	N	NV	NV	DO	NV												
07/1980	USGS FSA	N	CS	NV	DO	NV												

Summary Table

Normal Climate Condition	A	B	C	D														
Number	16	16	16	16														
Number with wet signatures	5	4	7	2														
Percent with wet signatures	31%	25%	43%	12%														

KEY		
WS - wetland signature	SS - soil wetness signature	CS - crop stress
NC - not cropped	AP - altered pattern	NV - normal vegetative cover
DO - drowned out	SW - standing water	NI – no soil wetness signature
Other labels or comments:		

Wetland Hydrology from Aerial Imagery – Recording Form

Project Name: Stoughton Trailers

Date: 05/06/2022

County: Dane

Investigator: A. Larsen

Decision Matrix.

Hydric Soils present ¹	Identified on NWI or other wetland map ²	Percent with wet signatures from Exhibit 1	Field verification required ³	Wetland?
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

¹The presence of hydric soils can be determined from the “Hydric Rating by Map Unit Feature” under “Land Classifications” from the Web Soil Survey. “Not Hydric” is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field datasheets.

² At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

³ Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

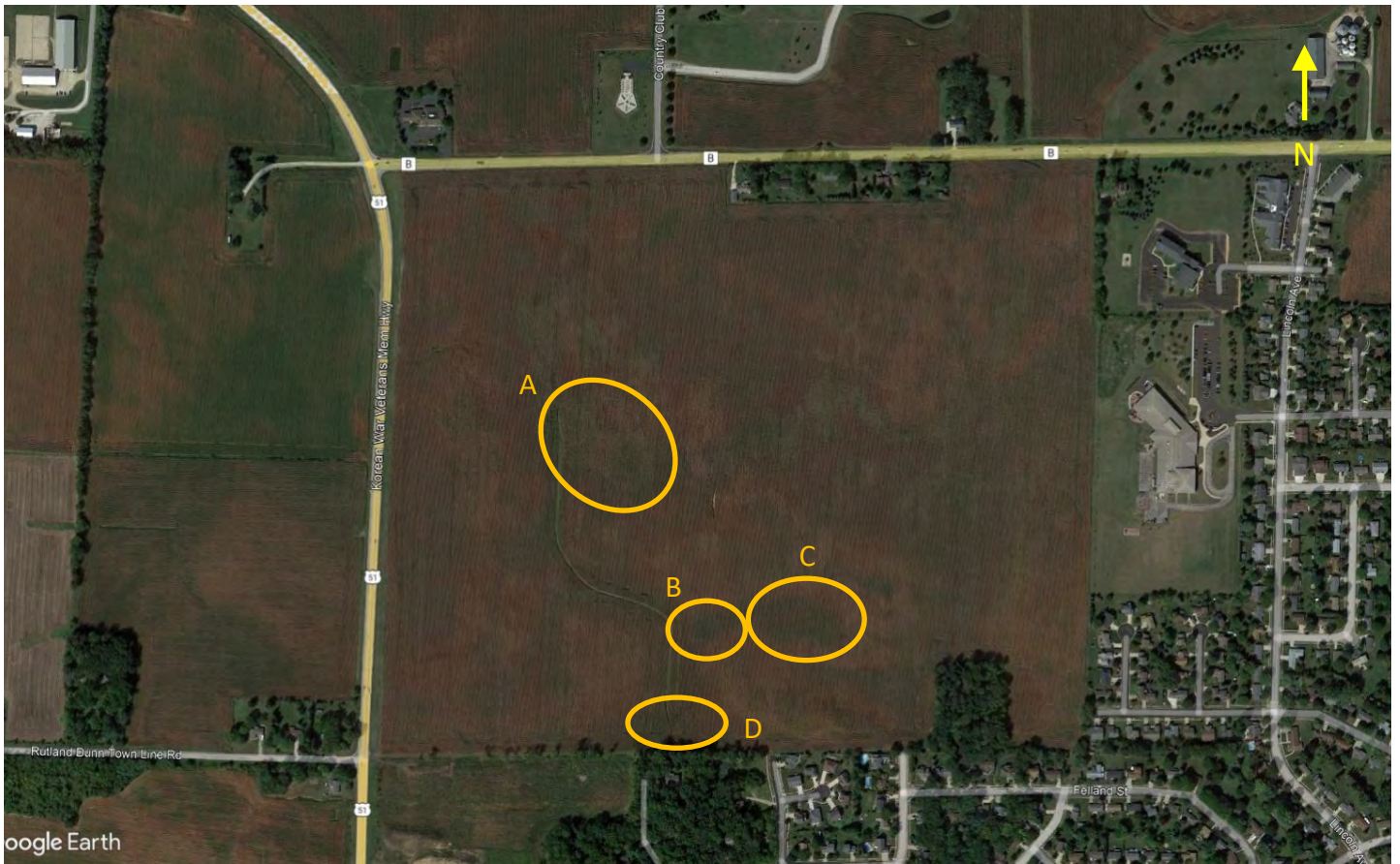
Off-Site Wetland Determination

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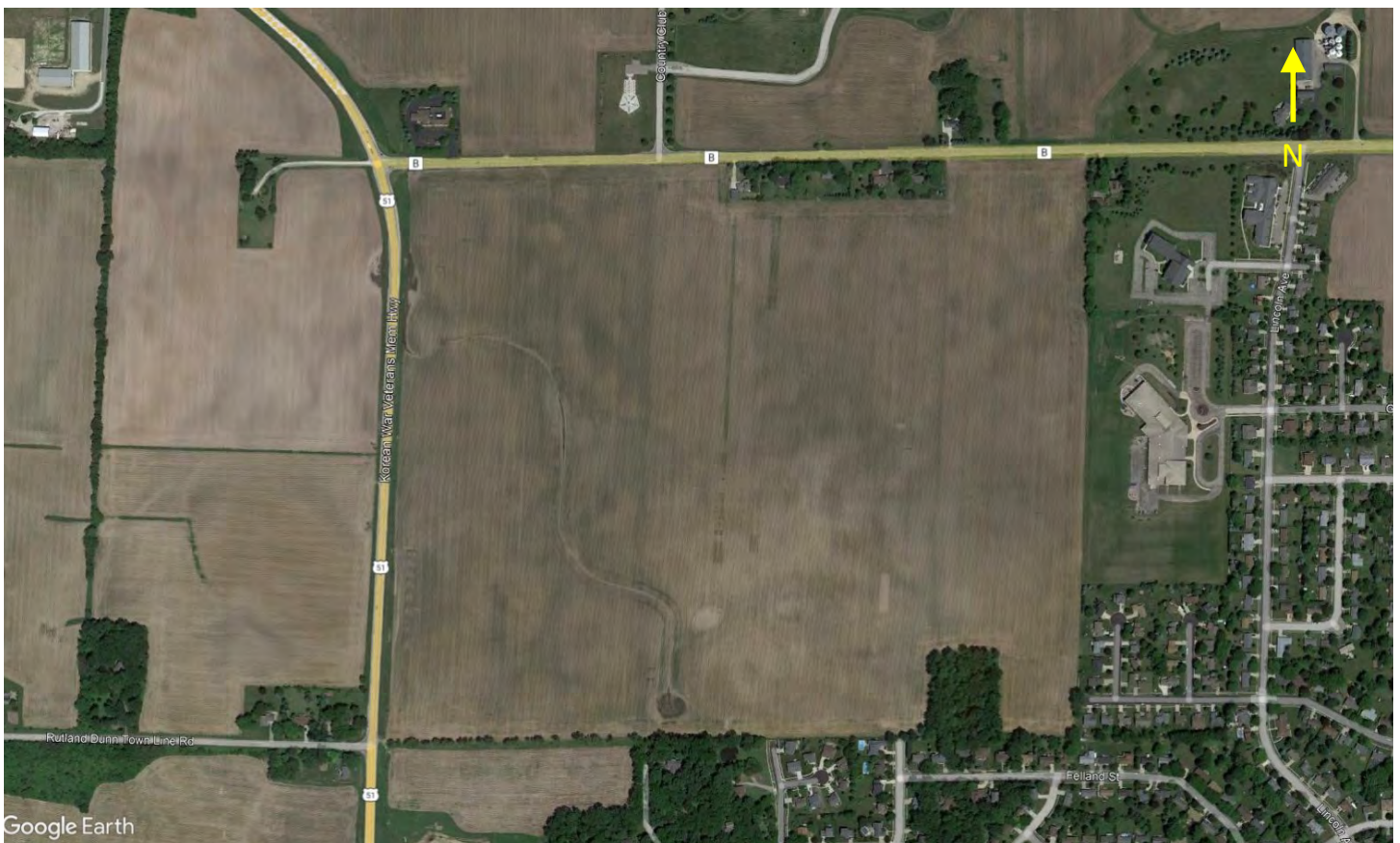
¹ Answer "N/A" if field verification is not required and was not conducted. Field evaluation indicated area was very wet with hydrophytic volunteer species and best professional judgment was used to identify area as wetland.

Stoughton Trailers — Aerial Images / FSA Crop Slides

Year: 2021 (normal year)



Year: 2020 (normal year)



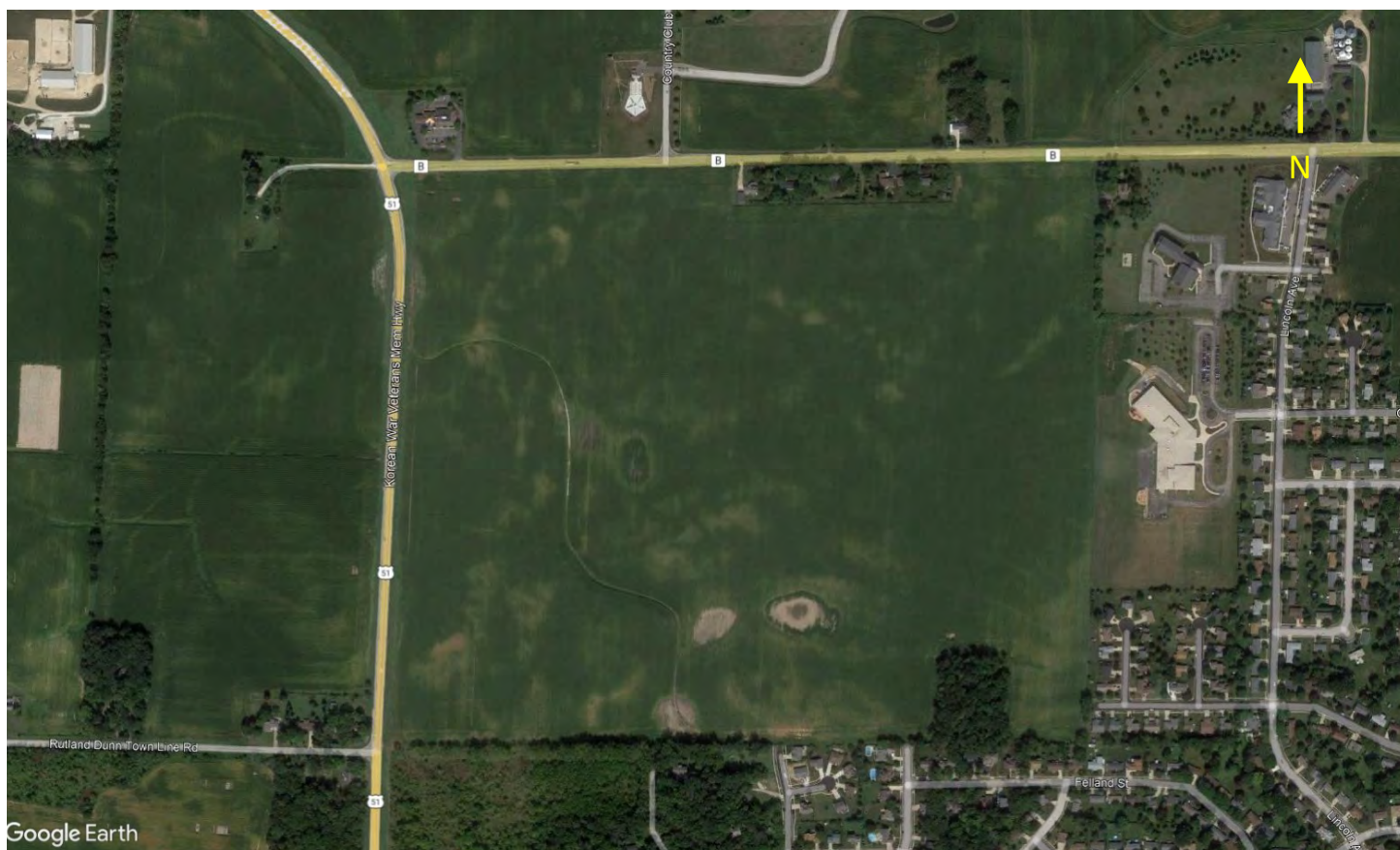
Project Number 492741

Stoughton Trailers — Aerial Images / FSA Crop Slides

Year: 2018 (wet year)



Year: 2017 (wet year)



Project Number 492741

Stoughton Trailers — Aerial Images / FSA Crop Slides

Year: 2014 (normal year)



Year: 2010 (wet year)



Project Number 492741

Year: 2008 (wet year)



Year: 2006 (normal year)



Year: 2005 (normal year)



Year: 2004 (dry year)



Year: 2003 (normal year)



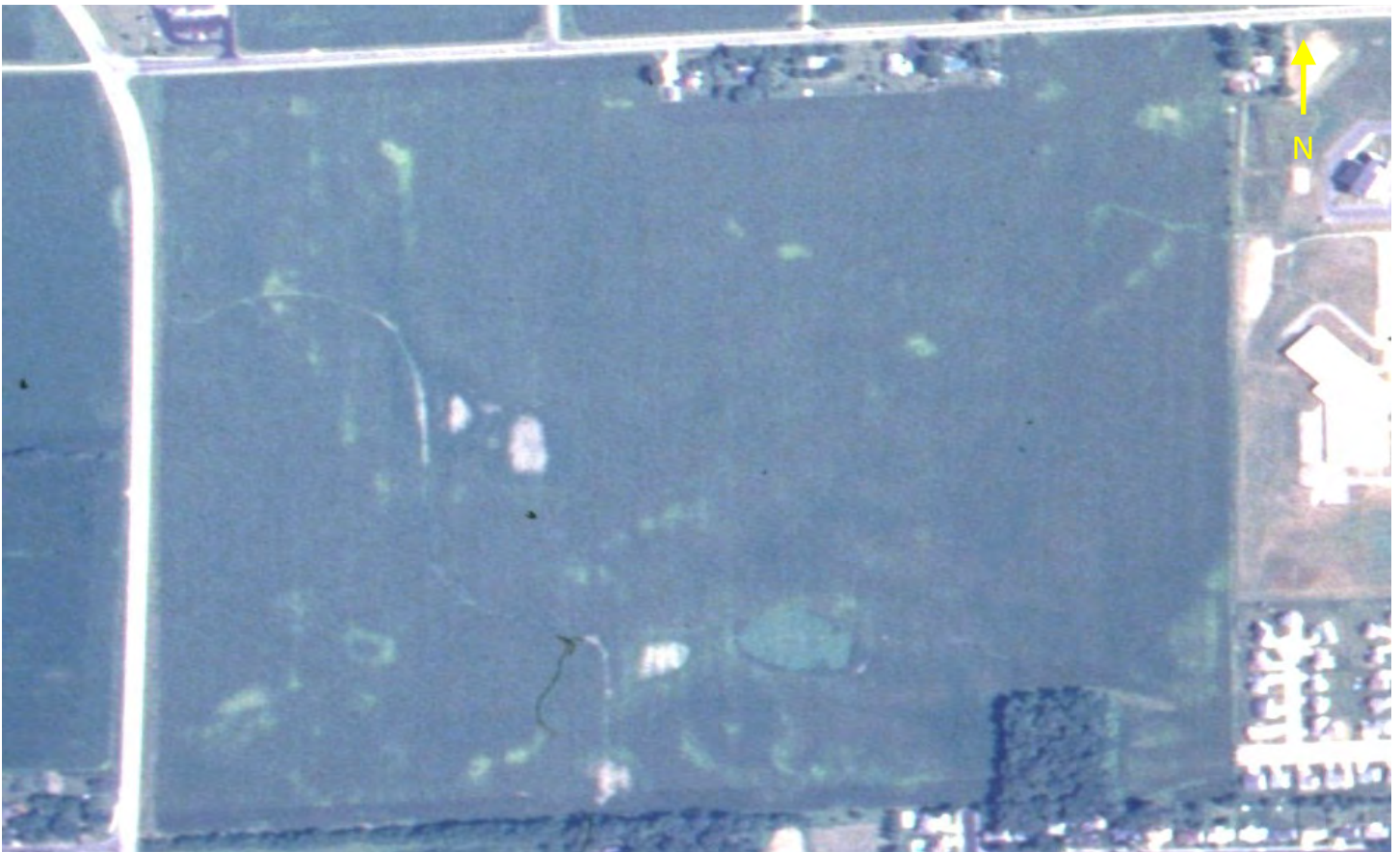
Year: 2002 (normal year)



Year: 2001 (wet year)



Year: 2000 (wet year)



Year: 1999 (wet year)



Year: 1998 (wet year)



Year: 1997 (normal year)



Year: 1996 (normal year)



Project Number 492741

Year: 1995 (normal year)



Year: 1994 (normal year)



Year: 1993 (wet year)



Year: 1992 (dry year)



Year: 1991 (normal year)



Year: 1990 (normal year)



Year: 1989 (dry year)



Year: 1988 (dry year)



Year: 1987 (dry year)



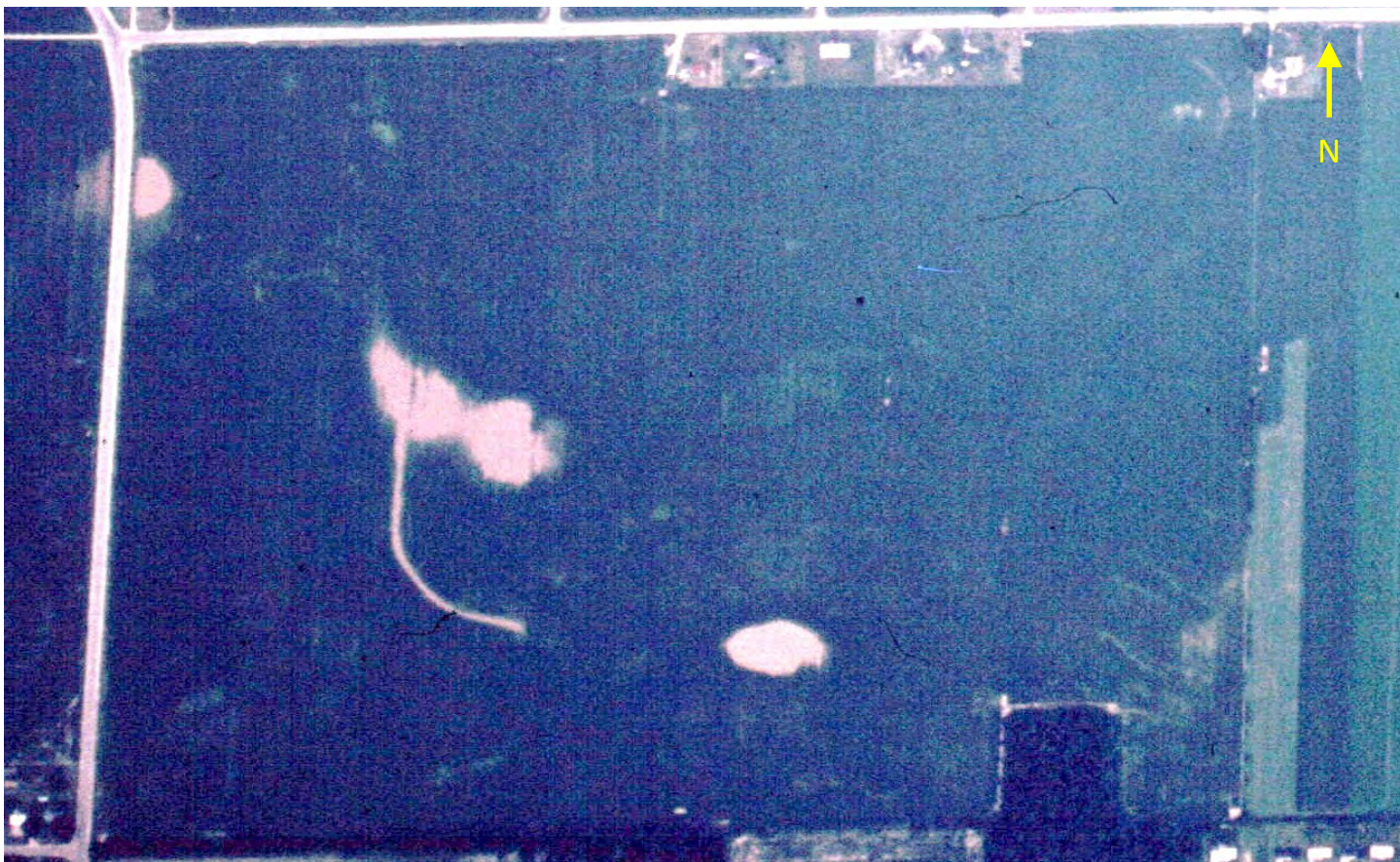
Year: 1986 (dry year)



Year: 1985 (dry year)

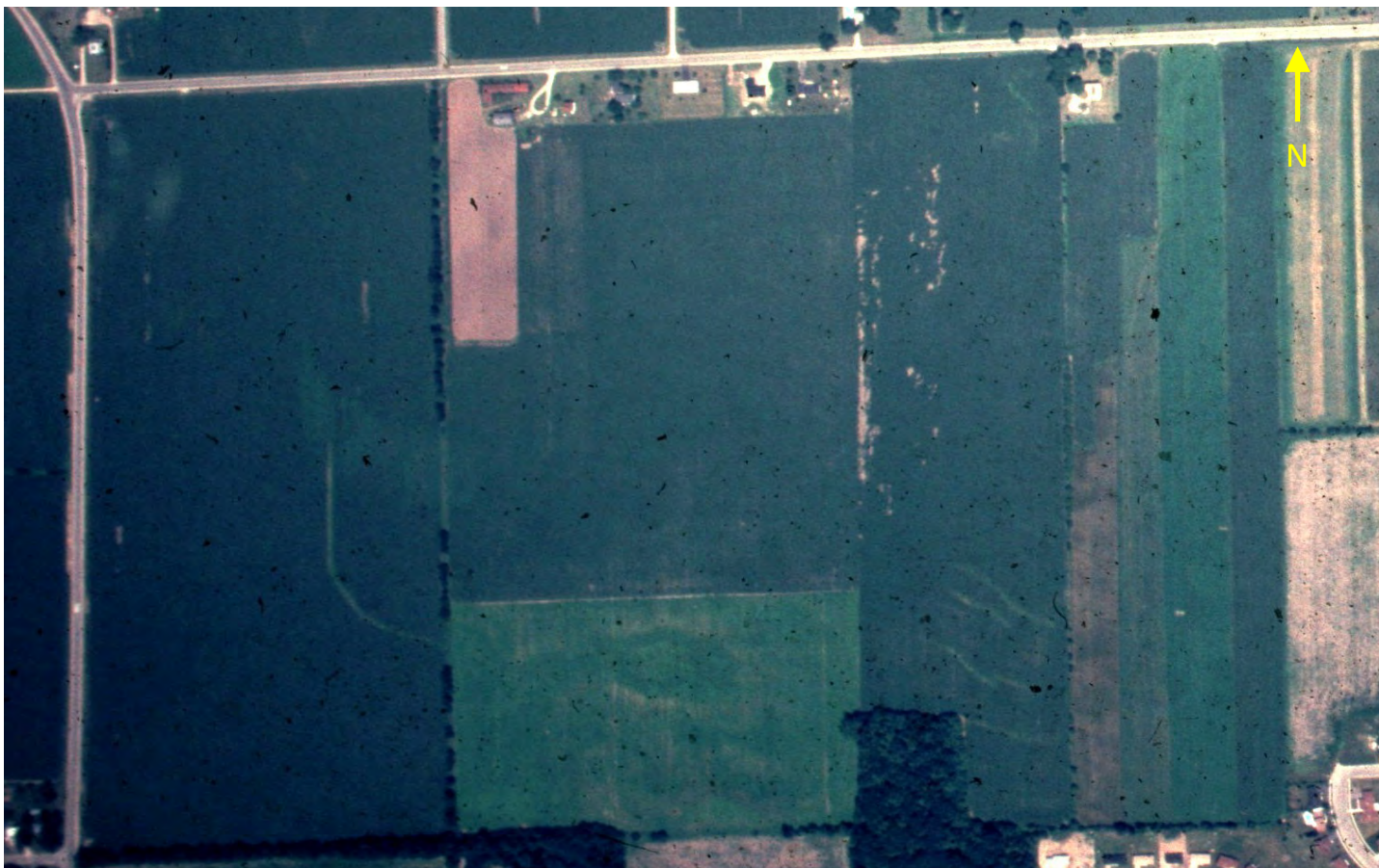


Year: 1984 (wet year)



Project Number 492741

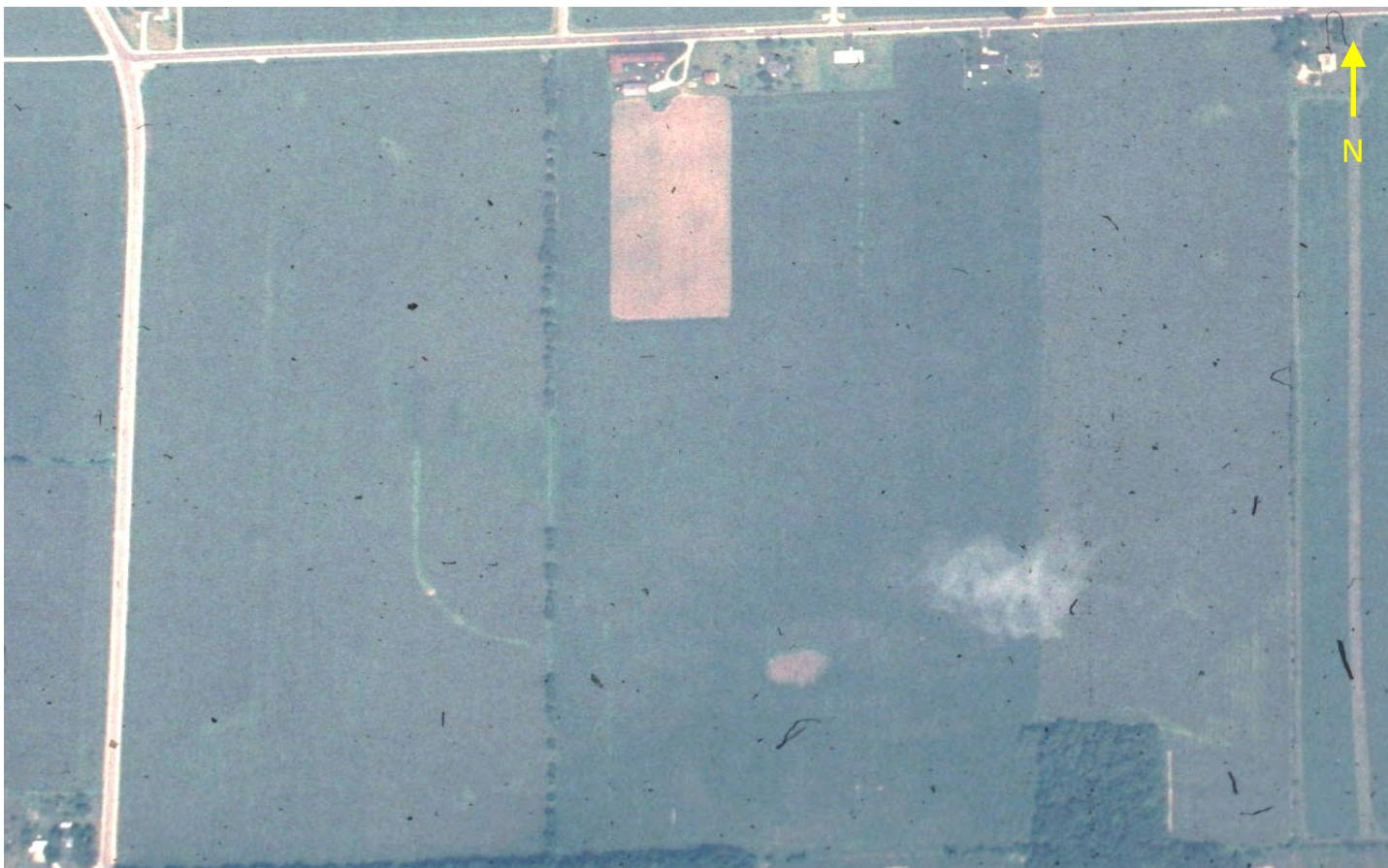
Year: 1983 (dry year)



Year: 1982 (normal year)



Year: 1981 (normal year)



Year: 1980 (normal year)



Appendix C:
Antecedent Precipitation Data / WETS Analysis

Table 2. Antecedent Precipitation Data					
February 1, 2022 through April 30, 2022					
Precipitation Data Source Location					
Stoughton WWTP (WI) USC00478229					
3rd Month Prior		2nd Month Prior		1st Month Prior	
Date	PPT	Date	PPT	Date	PPT
2/1/2022	0.00	3/1/2022	0.00	4/1/2022	0.05
2/2/2022	0.00	3/2/2022	0.00	4/2/2022	0.00
2/3/2022	0.00	3/3/2022	0.00	4/3/2022	0.39
2/4/2022	0.00	3/4/2022	0.00	4/4/2022	0.25
2/5/2022	T	3/5/2022	0.00	4/5/2022	0.00
2/6/2022	0.00	3/6/2022	0.60	4/6/2022	0.41
2/7/2022	T	3/7/2022	0.30	4/7/2022	T
2/8/2022	0.00	3/8/2022	0.06	4/8/2022	0.11
2/9/2022	0.00	3/9/2022	0.00	4/9/2022	T
2/10/2022	T	3/10/2022	0.00	4/10/2022	0.00
2/11/2022	0.06	3/11/2022	0.00	4/11/2022	0.00
2/12/2022	T	3/12/2022	0.00	4/12/2022	0.00
2/13/2022	T	3/13/2022	T	4/13/2022	0.12
2/14/2022	T	3/14/2022	0.00	4/14/2022	0.57
2/15/2022	0.00	3/15/2022	0.00	4/15/2022	0.00
2/16/2022	0.00	3/16/2022	0.00	4/16/2022	0.00
2/17/2022	0.08	3/17/2022	0.00	4/17/2022	0.00
2/18/2022	0.00	3/18/2022	0.24	4/18/2022	0.12
2/19/2022	0.02	3/19/2022	0.46	4/19/2022	0.04
2/20/2022	0.00	3/20/2022	0.10	4/20/2022	0.00
2/21/2022	0.00	3/21/2022	0.00	4/21/2022	0.22
2/22/2022	0.05	3/22/2022	0.00	4/22/2022	0.15
2/23/2022	0.33	3/23/2022	0.70	4/23/2022	0.86
2/24/2022	T	3/24/2022	0.23	4/24/2022	0.00
2/25/2022	0.10	3/25/2022	0.06	4/25/2022	0.12
2/26/2022	0.00	3/26/2022	T	4/26/2022	0.01
2/27/2022	0.00	3/27/2022	T	4/27/2022	0.00
2/28/2022	0.00	3/28/2022	0.00	4/28/2022	0.00
		3/29/2022	0.00	4/29/2022	0.05
		3/30/2022	0.15	4/30/2022	0.13
		3/31/2022	0.64		
Total = 0.64		Total = 3.54		Total = 3.60	

PPT - Precipitation in inches

T - Trace

M - Missing



Table 3. WETS Analysis

Project Site: Stoughton Trailers
 Period of interest: February - April, 2022
 County: Dane

Long-term rainfall records (from WETS table)

	Month	3 years in 10 less than	Normal	3 years in 10 greater than
1st month prior:	April	2.67	3.78	4.47
2nd month prior:	March	1.31	2.17	2.63
3rd month prior:	Feb	0.65	1.48	1.80
Sum =		7.43		

Site determination

Site Rainfall (in)	Condition Dry/Normal*/Wet	Condition** Value	Month Weight	Product
3.60	Normal	2	3	6
3.54	Wet	3	2	6
0.64	Dry	1	1	1
Sum =	7.78		Sum*** =	13

*Normal precipitation with 30% to 70% probability of occurrence

Determination: **Normal**

**Condition value:

***If sum is:

Dry = 1
 Normal = 2
 Wet = 3

6 to 9 then period has been drier than normal
 10 to 14 then period has been normal
 15 to 18 then period has been wetter than normal

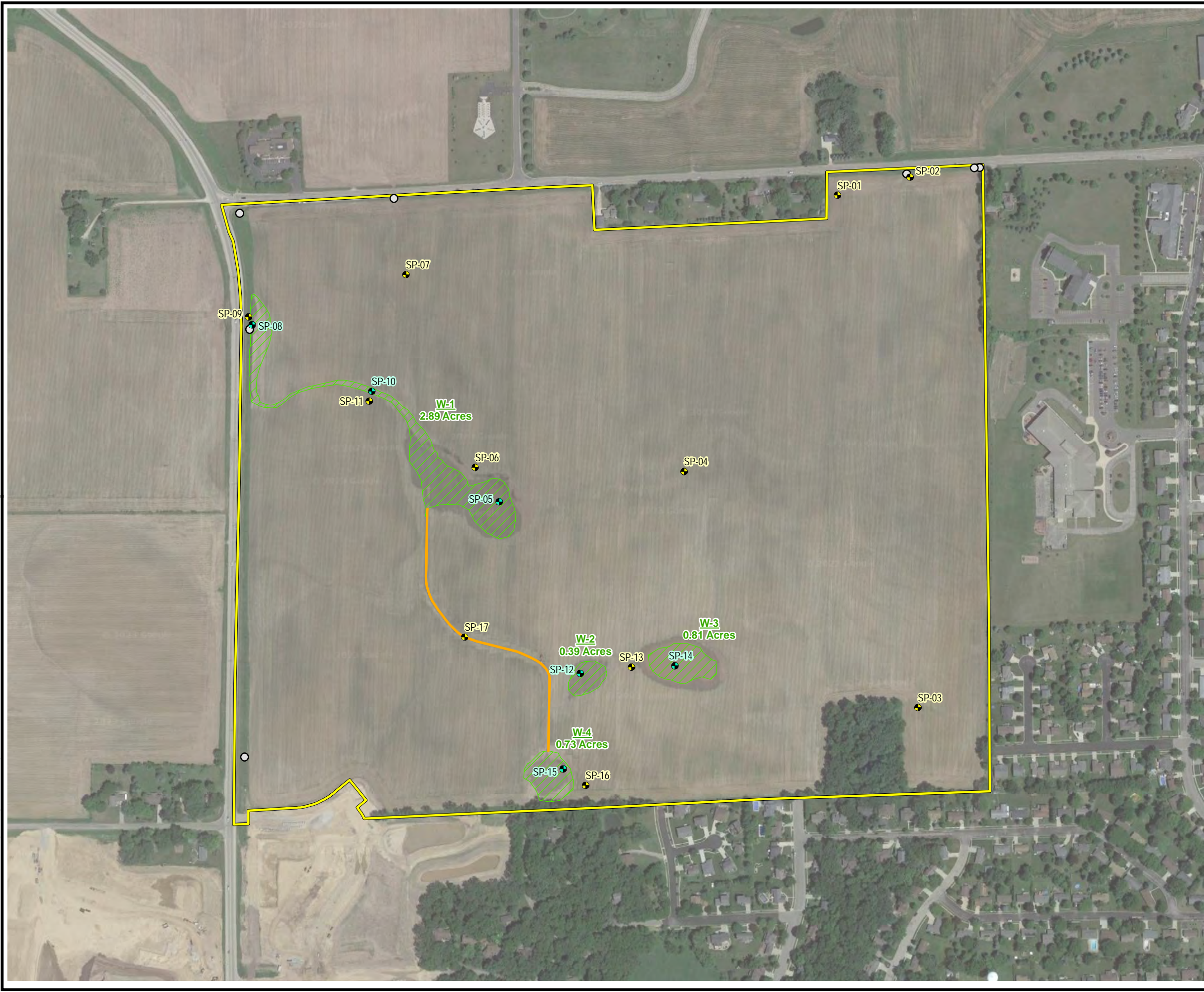
Precipitation data source: Stoughton WWTP (WI) USC00478229

WETS Station: Stoughton WWTP WI

Reference: Donald E. Woodward, ed. 1997. *Hydrology Tools for Wetland Determination*, Chapter 19. Engineering Field Handbook. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, TX.



Appendix D:
Wetland and Waterway Delineation Exhibit



LEGEND

- STUDY AREA
- TRC DELINEATED PEM WETLAND
- UPLAND DRAINAGE SWALE
- WETLAND SAMPLE POINT
- UPLAND SAMPLE POINT
- CULVERT

NOTES

1. BASE MAP FROM GOOGLE EARTH, 2021.

PROJECT: HARWOOD ENGINEERING CONSULTANTS STOUGHTON TRAILERS STOUGHTON, DANE COUNTY, WISCONSIN		
TITLE: WETLAND AND WATERWAY DELINEATION MAP		
DRAWN BY: M. OPEL	PROJ. NO.: 492741	EXHIBIT A
CHECKED BY: A. LARSEN		
APPROVED BY: R. LONDRE		
DATE: MARCH 2023		
		708 Heartland Trail, Suite 3000 Madison, WI 53717 Phone: 608.826.3600 www.trccompanies.com
FILE NO.:	WDR_ExhA_Delineation.mxd	

Appendix E:
Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-01
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Knoll Local relief (concave, convex, none): Convex Slope (%): 1 to 3
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.939512 Long: -89.240806 Datum: WGS84
 Soil Map Unit Name: Kegonsa silt loam, 2 to 6 percent slopes WWI Classification: None
 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Based on the absence of two of three parameters, this area is an upland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

Sampling Point: SP-01

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	0	= Total Cover		
Herb Stratum (Plot size: 5 ft radius)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	0	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)				
1. _____				
2. _____				
3. _____				
4. _____				
	0	= 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: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: % (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 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 0 (A)	0 (B)

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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 **X** _____

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

The criterion for hydrophytic vegetation is not met. Vegetation is significantly disturbed as a result of crop farming. Upland fallow field. Reference vegetation approximately 20 feet west was mowed turf grass which consisted of FACU species *Poa pratensis*, *Elymus repens*, *Alliaria petiolata*, *Taraxacum officinale*, *Glechoma hederacea*, and *Lolium perenne* in the herbaceous layer, as well as upland species *Rhus typhina* in the shrub layer.

SOIL

Sampling Point: SP-01

[illegible]

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



Plot Photo(s) - Vegetation:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-02
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Toe Local relief (concave, convex, none): Concave Slope (%): 1 to 3
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.939716 Long: -89.239661 Datum: WGS84
 Soil Map Unit Name: Plano silt loam, gravelly substratum, 2 to 6 percent slopes WWI Classification: None
 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point.
 Circumstances are not normal due to agricultural activities.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

 Sampling Point: SP-02

	Absolute % Cover	Dominant Species?	Indicator Status																																																	
Tree Stratum (Plot size: <u>30 ft radius</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																																																
1. _____																																																				
2. _____																																																				
3. _____																																																				
4. _____																																																				
5. _____																																																				
6. _____																																																				
7. _____																																																				
	<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%;">Multiply by:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3 =</td> <td></td> <td style="text-align: center;"><u>0</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>25</u></td> <td>x 4 =</td> <td></td> <td style="text-align: center;"><u>100</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>15</u></td> <td>x 5 =</td> <td></td> <td style="text-align: center;"><u>75</u></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>40</u></td> <td>(A)</td> <td></td> <td style="text-align: center;"><u>175</u></td> <td>(B)</td> </tr> <tr> <td colspan="6" style="text-align: center;">Prevalence Index = B/A = <u>4.4</u></td> </tr> </tbody> </table>		Total % Cover of:		Multiply by:			OBL species	<u>0</u>	x 1 =		<u>0</u>		FACW species	<u>0</u>	x 2 =		<u>0</u>		FAC species	<u>0</u>	x 3 =		<u>0</u>		FACU species	<u>25</u>	x 4 =		<u>100</u>		UPL species	<u>15</u>	x 5 =		<u>75</u>		Column Totals:	<u>40</u>	(A)		<u>175</u>	(B)	Prevalence Index = B/A = <u>4.4</u>					
	Total % Cover of:		Multiply by:																																																	
OBL species	<u>0</u>	x 1 =			<u>0</u>																																															
FACW species	<u>0</u>	x 2 =			<u>0</u>																																															
FAC species	<u>0</u>	x 3 =			<u>0</u>																																															
FACU species	<u>25</u>	x 4 =			<u>100</u>																																															
UPL species	<u>15</u>	x 5 =			<u>75</u>																																															
Column Totals:	<u>40</u>	(A)			<u>175</u>	(B)																																														
Prevalence Index = B/A = <u>4.4</u>																																																				
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)																																																				
1. _____																																																				
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4. _____																																																				
5. _____																																																				
6. _____																																																				
7. _____																																																				
	<u>0</u>	= Total Cover																																																		
Herb Stratum (Plot size: <u>5 ft radius</u>)					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.																																															
1. <i>Cirsium discolor</i>	15	Yes	UPL																																																	
2. <i>Chenopodium album</i>	10	Yes	FACU																																																	
3. <i>Taraxacum officinale</i>	10	Yes	FACU																																																	
4. <i>Elymus repens</i>	5	No	FACU																																																	
5. _____																																																				
6. _____																																																				
7. _____																																																				
8. _____																																																				
9. _____																																																				
10. _____																																																				
11. _____																																																				
	<u>40</u>	= Total Cover																																																		
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				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.																																																
1. _____																																																				
2. _____																																																				
3. _____																																																				
4. _____																																																				
	<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? Yes _____ No X _____																																																
Remarks: (Include photo numbers here or on a separate sheet.) The criterion for hydrophytic vegetation is not met. Vegetation is significantly disturbed as a result of crop farming. Upland fallow field.																																																				

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 11	10YR 3/2	100					Clay Loam	
11 to 24	10YR 3/2	90	10YR 5/8	10	C	M	Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (**LRR P, S, T, U**)

- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
☐ 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)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: Not present
 Depth (inches): _____

Hydric Soil Present? Yes _____ No **X****Remarks:**

The criterion for hydric soil is not met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



Plot Photo(s) - Vegetation:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-03
Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5 to 10
Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.933575 Long: -89.239614 Datum: WGS84
Soil Map Unit Name: McHenry silt loam, 12 to 20 percent slopes, eroded WWI Classification: None
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Based on the absence of all three parameters, this area is an upland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Saturation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Topo maps, soils map, WWI map, NHD map, aerial imagery

Remarks:

The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-03

	Absolute % Cover	Dominant Species?	Indicator Status																																									
Tree Stratum (Plot size: 30 ft radius)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)																																								
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	0	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 30%;"></td> <td style="width: 20%;">Total % Cover of:</td> <td style="width: 20%;"></td> <td style="width: 20%;">Multiply by:</td> <td style="width: 10%;"></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td>x 1 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">0</td> <td>x 2 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0</td> <td>x 3 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">10</td> <td>x 4 =</td> <td style="text-align: center;">40</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td>x 5 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">10</td> <td>(A)</td> <td style="text-align: center;">40</td> <td>(B)</td> </tr> <tr> <td colspan="5" style="text-align: center;">Prevalence Index = B/A = 4</td> </tr> </table>		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	10	x 4 =	40		UPL species	0	x 5 =	0		Column Totals:	10	(A)	40	(B)	Prevalence Index = B/A = 4				
	Total % Cover of:		Multiply by:																																									
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FACW species	0	x 2 =	0																																									
FAC species	0	x 3 =	0																																									
FACU species	10	x 4 =	40																																									
UPL species	0	x 5 =	0																																									
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Prevalence Index = B/A = 4																																												
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Herb Stratum (Plot size: 5 ft radius)																																												
1. <i>Taraxacum officinale</i>	10	Yes	FACU																																									
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				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 X _____																																								

Remarks: (Include photo numbers here or on a separate sheet.)
 The criterion for hydrophytic vegetation is not met. Vegetation is significantly disturbed as a result of crop farming. Upland fallow field.

SOIL

Sampling Point: SP-03

[illegible]

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM — Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-04
Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
Landform (hillslope, terrace, etc): Toe Local relief (concave, convex, none): Flat Slope (%): 1 to 3
Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.936332 Long: -89.243258 Datum: WGS84
Soil Map Unit Name: Batavia silt loam, gravelly substratum, 2 to 6 percent slopes WWI Classification: None
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Based on the absence of all three parameters, this area is an upland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Saturation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Topo maps, soils map, WWI map, NHD map, aerial imagery

Remarks:

The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-04

	Absolute % Cover	Dominant Species?	Indicator Status																																									
Tree Stratum (Plot size: 30 ft radius)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)																																								
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	Total % Cover of:		Multiply by:																																									
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FACW species	0	x 2 =			0																																							
FAC species	0	x 3 =			0																																							
FACU species	5	x 4 =			20																																							
UPL species	0	x 5 =			0																																							
Column Totals:	5	(A)			20 (B)																																							
Prevalence Index = B/A = 4																																												
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Herb Stratum (Plot size: 5 ft radius)																																												
1. <i>Erigeron canadensis</i>	5	Yes	FACU																																									
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				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 X _____																																								

Remarks: (Include photo numbers here or on a separate sheet.)
 The criterion for hydrophytic vegetation is not met. Vegetation is significantly disturbed as a result of crop farming.

SOIL

Sampling Point: SP-04

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 13	10YR 2/2	100					Loam	
13 to 17	10YR 3/2	100					Loam	
17 to 24	10YR 4/2	98	10YR 5/8	2	C	M	Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (**LRR P, S, T, U**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
☐ 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)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: Not present

Depth (inches): _____

Hydric Soil Present? Yes _____ No **X****Remarks:**

The criterion for hydric soil is not met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM — Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-05
Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): Flat Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.936004 Long: -89.246174 Datum: WGS84
Soil Map Unit Name: Troxel silt loam, 0 to 3 percent slopes WWI Classification: None
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-1</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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

Covertypes is PEM. Based on the presence of all three parameters, this area is a wetland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Saturation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Topo maps, soils map, WWI map, NHD map, aerial imagery

Remarks:

The criterion for wetland hydrology is met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-05

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30 ft radius)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: % (A/B)														
1. _____																		
2. _____																		
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7. _____																		
	0	= Total Cover																
Sapling/Shrub Stratum (Plot size: 15 ft radius)				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 60%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 0</td> <td>x 2 = 0</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 0 (A)</td> <td>0 (B)</td> </tr> </table> Prevalence Index = B/A = 0	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 0	x 4 = 0	UPL species 0	x 5 = 0	Column Totals: 0 (A)	0 (B)
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 0	x 4 = 0																	
UPL species 0	x 5 = 0																	
Column Totals: 0 (A)	0 (B)																	
1. _____																		
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3. _____																		
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5. _____																		
6. _____																		
7. _____																		
	0	= Total Cover																
Herb Stratum (Plot size: 5 ft radius)				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) X Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. _____																		
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11. _____																		
12. _____																		
	0	= Total Cover																
Woody Vine Stratum (Plot size: 30 ft radius)				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.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
	0	= Total Cover																
				Hydrophytic Vegetation Present? Yes X No _____														
Remarks: (Include photo numbers here or on a separate sheet.) The criterion for hydrophytic vegetation is met. Vegetation is significantly disturbed as a result of crop farming. Based on the presence of hydric soil and wetland hydrology indicators, it is anticipated that this area would support a hydrophytic plant community under normal circumstances. Farmed wetland.																		

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 7	10YR 3/2	100					Loam	
7 to 14	10YR 3/2	95	10YR 5/8	5	C	M	Loam	
14 to 24	10YR 3/1	90	10YR 5/8	10	C	M	Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (**LRR P, S, T, U**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
☐ 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)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: Not present

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

The criterion for hydric soil is met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-06
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2 to 5
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.936402 Long: -89.246547 Datum: WGS84
 Soil Map Unit Name: Kegonsa silt loam, 2 to 6 percent slopes WWI Classification: None
 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 <input type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Based on the absence of the wetland hydrology and hydric soil parameters, this area is an upland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

Sampling Point: SP-06

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30 ft radius)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: % (A/B)														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	0	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 0</td> <td>x 2 = 0</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 0 (A)</td> <td>0 (B)</td> </tr> </table> Prevalence Index = B/A = 0	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 0	x 4 = 0	UPL species 0	x 5 = 0	Column Totals: 0 (A)	0 (B)
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 0	x 4 = 0																	
UPL species 0	x 5 = 0																	
Column Totals: 0 (A)	0 (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft radius)																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	0	= Total Cover																
Herb Stratum (Plot size: 5 ft radius)				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.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	0	= Total Cover																
Woody Vine Stratum (Plot size: 30 ft radius)				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.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
	0	= Total Cover																
				Hydrophytic Vegetation Present? Yes _____ No _____														
Remarks: (Include photo numbers here or on a separate sheet.) Vegetation is significantly disturbed as a result of crop farming. Upland fallow field. The unmanaged condition of vegetation could not be determined. No volunteer species present.																		

SOIL

Sampling Point: SP-06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 11	10YR 3/2	100					Loam	
11 to 24	10YR 4/3	100					Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/>	Polyvalue Below Surface (S8) (LRR R,	<input type="checkbox"/>	2 cm Muck (A10) (LRR K, L, MLRA 149B)				
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/>	MLRA 149B)	<input type="checkbox"/>	Coast Prairie Redox (A16) (LRR K, L, R)				
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/>	Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/>	5 cm Muck Peat or Peat (S3) (LRR K, L, R)				
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/>	Dark Surface (S7) (LRR K, L)				
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Polyvalue Below Surface (S8) (LRR K, L)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Thin Dark Surface (S9) (LRR K, L)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Iron-Manganese Masses (F12) (LRR K, L, R)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Piedmont Floodplain Soils (F19) (MLRA 149B)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/>	Red Parent Material (F21)				
<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/>	Very Shallow Dark Surface (TF12)				
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)			<input type="checkbox"/>	Other (Explain in Remarks)				

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

Restrictive Layer (if present):	
Type: Not present	
Depth (inches):	
	Hydric Soil Present? Yes No X

Remarks:

The criterion for hydric soil is not met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-07
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): Convex Slope (%): 5 to 10
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.938641 Long: -89.247606 Datum: WGS84
 Soil Map Unit Name: Plano silt loam, gravelly substratum, 2 to 6 percent slopes WWI Classification: None
 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 <input type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Based on the absence of the wetland hydrology and hydric soil parameters, this area is an upland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

Sampling Point: SP-07

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30 ft radius)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: % (A/B)														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	0	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 60%;">Multiply by:</th> </tr> <tr> <td>OBL species 0</td> <td>x 1 = 0</td> </tr> <tr> <td>FACW species 0</td> <td>x 2 = 0</td> </tr> <tr> <td>FAC species 0</td> <td>x 3 = 0</td> </tr> <tr> <td>FACU species 0</td> <td>x 4 = 0</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 0 (A)</td> <td>0 (B)</td> </tr> </table> Prevalence Index = B/A = 0	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 0	x 4 = 0	UPL species 0	x 5 = 0	Column Totals: 0 (A)	0 (B)
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 0	x 4 = 0																	
UPL species 0	x 5 = 0																	
Column Totals: 0 (A)	0 (B)																	
Sapling/Shrub Stratum (Plot size: 15 ft radius)																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	0	= Total Cover																
Herb Stratum (Plot size: 5 ft radius)				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.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	0	= Total Cover																
Woody Vine Stratum (Plot size: 30 ft radius)				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.														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
	0	= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.) Vegetation is significantly disturbed as a result of crop farming. The unmanaged condition of vegetation could not be determined. No volunteer species present.				Hydrophytic Vegetation Present? Yes _____ No _____														

SOIL

Sampling Point: SP-07

[illegible]

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-08
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Toe Local relief (concave, convex, none): Concave Slope (%): 1 to 3
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.938075 Long: -89.250035 Datum: WGS84
 Soil Map Unit Name: Kegonsa silt loam, 2 to 6 percent slopes WWI Classification: None
 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-1</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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

Covertypes is PEM. Based on the presence of all three parameters, this area is a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u> </u>
Water Table Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches): <u>10</u>
Saturation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches): <u>0</u>

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Topo maps, soils map, WWI map, NHD map, aerial imagery

Remarks:

The criterion for wetland hydrology is met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-08

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 30 ft radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Herb Stratum (Plot size: 5 ft radius)				
1.	35	Yes	FACW	
2.	15	Yes	OBL	
3.	10	No	FACW	
4.	5	No	FAC	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	65	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)				
1.				
2.				
3.				
4.				
	0	= 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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 15	x 1 = 15
FACW species 45	x 2 = 90
FAC species 5	x 3 = 15
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 65 (A)	120 (B)

Prevalence Index = B/A = 1.8

Hydrophytic Vegetation Indicators:

☒ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☒ 3 - Prevalence Index is ≤3.0¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

The criterion for hydrophytic vegetation is met. Partially farmed fresh (wet) meadow plant community.

SOIL

Sampling Point: SP-08

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 16	10YR 4/1	80	10YR 5/8	20	C	M	Sandy Clay	
16 to 20	10YR 5/1	85	10YR 6/6	15	C	M	Silty Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) **(LRR P, S, T, U)**

- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
☐ 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)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
☐ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
☐ Dark Surface (S7) **(LRR K, L)**
☐ 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)**
☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: Not present
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

The criterion for hydric soil is met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - South:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-09
Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5 to 10
Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.938168 Long: -89.25009 Datum: WGS84
Soil Map Unit Name: Kegonsa silt loam, 2 to 6 percent slopes WWI Classification: None
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.) Covertypes is UPL. Based on the absence of all three parameters, this area is an upland. Circumstances are not normal due to mowing of vegetation.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

Sampling Point: SP-09

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 30 ft radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	0	= Total Cover		
Herb Stratum (Plot size: 5 ft radius)				
1.	<i>Festuca rubra</i>	30	Yes	FACU
2.	<i>Elymus repens</i>	30	Yes	FACU
3.	<i>Dactylis glomerata</i>	20	No	FACU
4.	<i>Poa pratensis</i>	20	No	FACU
5.	<i>Trifolium pratense</i>	10	No	FACU
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	110	= Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)				
1.				
2.				
3.				
4.				
	0	= 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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (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 110	x 4 = 440
UPL species 0	x 5 = 0
Column Totals: 110 (A)	440 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0¹

___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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 **X** _____

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

The criterion for hydrophytic vegetation is not met. Vegetation is significantly disturbed as a result of mowing. Planted turf grass area.

SOIL

Sampling Point: SP-09

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

[illegible]¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- | | |
|---|--|
| — Histosol (A1) | — Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| — Histic Epipedon (A2) | — Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| — Black Histic (A3) | — Loamy Mucky Mineral (F1) (LRR K, L) |
| — Hydrogen Sulfide (A4) | — Loamy Gleyed Matrix (F2) |
| — Stratified Layers (A5) | — Depleted Matrix (F3) |
| — Depleted Below Dark Surface (A11) | — Redox Dark Surface (F6) |
| — Thick Dark Surface (A12) | — Depleted Dark Surface (F7) |
| — Sandy Mucky Mineral (S1) | — Redox Depressions (F8) |
| — Sandy Gleyed Matrix (S4) | |
| — Sandy Redox (S5) | |
| — Stripped Matrix (S6) | |
| — Dark Surface (S7) (LRR P, S, T, U) | |

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Not present

Depth (inches): _____

Hydric Soil Present? Yes No **X**

Remarks:

The criterion for hydric soil is not met. Refusal on rocks at 16 inches.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-10
Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): Concave Slope (%): 2 to 5
Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.937293 Long: -89.248165 Datum: WGS84
Soil Map Unit Name: Plano silt loam, gravelly substratum, 2 to 6 percent slopes WWI Classification: None
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-1</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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

Covertypes is PEM. Based on the presence of all three parameters, this area is a wetland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Saturation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Topo maps, soils map, WWI map, NHD map, aerial imagery

Remarks:

The criterion for wetland hydrology is met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-10

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u>		= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>0</u>		= Total Cover																
Herb Stratum (Plot size: <u>5 ft radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>0</u>		= Total Cover																
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u>		= Total Cover																
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>																		
Remarks: (Include photo numbers here or on a separate sheet.) The criterion for hydrophytic vegetation is met. Vegetation is significantly disturbed as a result of crop farming. Based on the presence of hydric soil and wetland hydrology indicators, it is anticipated that this area would support a hydrophytic plant community under normal circumstances. Farmed wetland plant community.																		

SOIL

Sampling Point: SP-10

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

[illegible]¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X** Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR P, S, T, U**)

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- Loamy Mucky Mineral (F1) (**LRR K, L**)
- Loamy Gleyed Matrix (F2)
- X** Depleted Matrix (F3)
- X** Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Not present

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

The criterion for hydric soil is met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-11
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2 to 5
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.937181 Long: -89.248201 Datum: WGS84
 Soil Map Unit Name: Troxel silt loam, 0 to 3 percent slopes WWI Classification: None
 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 <input type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Based on the absence of the wetland hydrology and hydric soil parameters, this area is an upland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

Sampling Point: SP-11

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>0</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
	<u>0</u>	= 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: 0 (B)

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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 is significantly disturbed as a result of crop farming. The unmanaged condition of vegetation could not be determined. No volunteer species present.

SOIL

Sampling Point: SP-11

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

[illegible]¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**

- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ 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)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Not present

Depth (inches): _____

Hydric Soil Present? Yes No **X**

Remarks:

The criterion for hydric soil is not met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-12
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): Concave Slope (%): 0 to 1
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.934009 Long: -89.244921 Datum: WGS84
 Soil Map Unit Name: Dresden silt loam, 6 to 12 percent slopes, eroded WWI Classification: None
 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-2</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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

Covertypes is PEM. Based on the presence of all three parameters, this area is a wetland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input checked="" type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

Sampling Point: SP-12

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>0</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
	<u>0</u>	= 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: 0 (B)

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☒ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

The criterion for hydrophytic vegetation is met. Vegetation is significantly disturbed as a result of crop farming. Based on the presence of hydric soil and wetland hydrology indicators, it is anticipated that this area would support a hydrophytic plant community under normal circumstances. Farmed wetland.

SOIL

Sampling Point: SP-12

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 13	10YR 3/2	90	10YR 5/8	10	C	M	Loam	
13 to 24	10YR 3/2	85	10YR 5/8	10	C	M	Clay Loam	
13 to 24			10YR 5/1	5	D	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (**LRR P, S, T, U**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
☐ 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)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: Not present

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

The criterion for hydric soil is met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-13
Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
Landform (hillslope, terrace, etc): Saddle Local relief (concave, convex, none): Concave Slope (%): 2 to 5
Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.934075 Long: -89.244114 Datum: WGS84
Soil Map Unit Name: Troxel silt loam, 0 to 3 percent slopes WWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation X, Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
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 <u> </u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

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

Covertypes is UPL. Based on the absence of the wetland hydrology and hydric soil parameters, this area is an upland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY**Wetland Hydrology Indicators:**

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

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

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 <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Water Table Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Saturation Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>

(includes capillary fringe)

Wetland Hydrology Present? Yes No X

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

Topo maps, soils map, WWI map, NHD map, aerial imagery

Remarks:

The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-13

	Absolute % Cover	Dominant Species?	Indicator Status																																	
Tree Stratum (Plot size: <u>30 ft radius</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>%</u> (A/B)																																
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
	<u>0</u>	= Total Cover																																		
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 20%; text-align: center;">Total % Cover of:</td> <td style="width: 20%; text-align: center;">Multiply by:</td> <td style="width: 30%;"></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 3 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>0</u></td> <td style="text-align: center;">(A)</td> <td style="text-align: center;"><u>0</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>0</u></td> </tr> </table>		Total % Cover of:	Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u>	(A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>			
	Total % Cover of:	Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>0</u>	(A)	<u>0</u> (B)																																	
Prevalence Index = B/A = <u>0</u>																																				
1. _____																																				
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6. _____																																				
7. _____																																				
	<u>0</u>	= Total Cover																																		
Herb Stratum (Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
10. _____																																				
11. _____																																				
12. _____																																				
	<u>0</u>	= Total Cover																																		
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				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.																																
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
	<u>0</u>	= Total Cover																																		
				Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u>																																
Remarks: (Include photo numbers here or on a separate sheet.) Vegetation is significantly disturbed as a result of crop farming. The unmanaged condition of vegetation could not be determined. No volunteer species present.																																				

SOIL

Sampling Point: SP-13

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: 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)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR P, S, T, U**)

- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ 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)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Not present

Depth (inches): _____

Hydric Soil Present? Yes No **X**

Remarks:

The criterion for hydric soil is not met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-14
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): Concave Slope (%): 0 to 1
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.934085 Long: -89.243431 Datum: WGS84
 Soil Map Unit Name: Troxel silt loam, 0 to 3 percent slopes WWI Classification: None
 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-3</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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

Covertypes is PEM. Based on the presence of all three parameters, this area is a wetland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input checked="" type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

Sampling Point: SP-14

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5 ft radius</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u>0</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
	<u>0</u>	= 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: 0 (B)

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☒ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

The criterion for hydrophytic vegetation is met. Vegetation is significantly disturbed as a result of crop farming. Based on the presence of hydric soil and wetland hydrology indicators, it is anticipated that this area would support a hydrophytic plant community under normal circumstances. Farmed wetland.

SOIL

Sampling Point: SP-14

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 19	10YR 4/2	80	10YR 5/8	20	C	M	Silty Clay	
19 to 24	10YR 4/1	80	10YR 5/8	20	C	M	Silty Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) **(LRR P, S, T, U)**

- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
☐ 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)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
☐ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
☐ Dark Surface (S7) **(LRR K, L)**
☐ 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)**
☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: Not present
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

The criterion for hydric soil is met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-15
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): Concave Slope (%): 1 to 3
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.932903 Long: -89.245202 Datum: WGS84
 Soil Map Unit Name: Batavia silt loam, gravelly substratum, 2 to 6 percent slopes WWI Classification: None
 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-4</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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

Covertypes is PEM. Based on the presence of all three parameters, this area is a wetland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Saturation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Topo maps, soils map, WWI map, NHD map, aerial imagery

Remarks:

The criterion for wetland hydrology is met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-15

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>0</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
	<u>0</u>	= 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: 0 (B)

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☒ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.)

The criterion for hydrophytic vegetation is met. Vegetation is significantly disturbed as a result of crop farming. Based on the presence of hydric soil and wetland hydrology indicators, it is anticipated that this area would support a hydrophytic plant community under normal circumstances. Farmed wetland.

SOIL

Sampling Point: SP-15

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 to 12	10YR 3/2	95	10YR 5/8	5	C	M	Clay Loam	
12 to 24	10YR 4/1	75	10YR 5/8	15	C	M	Silt Loam	
12 to 24			10YR 5/1	10	D	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: 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)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (**LRR P, S, T, U**)

☐ Polyvalue Below Surface (S8) (**LRR R,
MLRA 149B**)
☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
☐ 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)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Muck Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ 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**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: Not present
Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The criterion for hydric soil is met.

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM — Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-16
Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
Landform (hillslope, terrace, etc): Foot slope Local relief (concave, convex, none): Convex Slope (%): 2 to 5
Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.932711 Long: -89.244854 Datum: WGS84
Soil Map Unit Name: Batavia silt loam, gravelly substratum, 2 to 6 percent slopes WWI Classification: None
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Based on the absence of all three parameters, this area is an upland. Chapter 5 procedures for Difficult Wetland Situations were followed in making the wetland determination at this sample point. Circumstances are not normal due to agricultural activities.

HYDROLOGY**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>
Saturation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Topo maps, soils map, WWI map, NHD map, aerial imagery

Remarks:

The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-16

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft radius</u>)																		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
	<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 60%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>10</u> (A)</td> <td><u>40</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>10</u> (A)	<u>40</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>10</u> (A)	<u>40</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
	<u>0</u>	= Total Cover																
Herb Stratum (Plot size: <u>5 ft radius</u>)																		
1. <u>Taraxacum officinale</u>	<u>5</u>	Yes	FACU	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Erigeron canadensis</u>	<u>5</u>	Yes	FACU															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
	<u>10</u>	= Total Cover																
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
	<u>0</u>	= Total Cover		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 <u>X</u>																		
Remarks: (Include photo numbers here or on a separate sheet.) The criterion for hydrophytic vegetation is not met. Vegetation is significantly disturbed as a result of crop farming. Upland fallow field.																		

SOIL

Sampling Point: SP-16

[illegible]

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:



Plot Photo(s) - East:



Plot Photo(s) - South:



Plot Photo(s) - West:



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Stoughton Trailers City/County: Stoughton, Dane County Sampling Date: 2022-5-9
 Applicant/Owner: Harwood State: Wisconsin Sampling Point: SP-17
 Investigator(s): Amanda Larsen Section, Township, Range: 31-T6N-R11E
 Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): Concave Slope (%): 3 to 6
 Subregion (LRR or MLRA): MLRA 95B of LRR K Lat: 42.93443 Long: -89.246712 Datum: WGS84
 Soil Map Unit Name: Troxel silt loam, 0 to 3 percent slopes WWI Classification: None
 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>NA</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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

Covertypes is UPL. Based on the absence of two of three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo maps, soils map, WWI map, NHD map, aerial imagery		
Remarks: The criterion for wetland hydrology is not met. Based on WETS analysis, antecedent hydrologic conditions are within a normal range.		

VEGETATION – Use scientific names of plants.

 Sampling Point: SP-17

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5 ft radius</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>85</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
1.				
2.				
3.				
4.				
	<u>0</u>	= Total Cover		
Dominance Test worksheet:				
Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)				
Total Number of Dominant Species Across All Strata: <u>2</u> (B)				
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)				
Prevalence Index worksheet:				
Total % Cover of:		Multiply by:		
OBL species	<u>0</u>	x 1 =	<u>0</u>	
FACW species	<u>0</u>	x 2 =	<u>0</u>	
FAC species	<u>20</u>	x 3 =	<u>60</u>	
FACU species	<u>65</u>	x 4 =	<u>260</u>	
UPL species	<u>0</u>	x 5 =	<u>0</u>	
Column Totals:	<u>85</u>	(A)	<u>320</u>	(B)
Prevalence Index = B/A = <u>3.8</u>				
Hydrophytic Vegetation Indicators:				
<u> </u> 1 - Rapid Test for Hydrophytic Vegetation				
<u> </u> 2 - Dominance Test is >50%				
<u> </u> 3 - Prevalence Index is ≤3.0 ¹				
<u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
<u> </u> 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 <u> </u> No <u>X</u>				
Remarks: (Include photo numbers here or on a separate sheet.) The criterion for hydrophytic vegetation is not met. Upland fallow field. Vegetation is remnant and identifiable from 2021. Swale is not impacted by agricultural activities.				

SOIL

Sampling Point: SP-17

[illegible]

SAMPLE PLOT PHOTOS

Plot Photo(s) - North:

Looking north from approximately 50' south of wetland W-1



Plot Photo(s) - South:



Plot Photo(s) - West:



Appendix F:
Professional Opinion on Wetland Susceptibility

Table 4: Opinion of Susceptibility for NR 151 Setback Purposes

Note: Final authority on NR 151 protective areas rests with WDNR, but the following is TRC's opinion of each wetland's NR 151 protective area category.

<u>Wetland #</u>	<u>Least Susceptible</u>	<u>Moderately Susceptible</u>	<u>Highly Susceptible</u>
W-1	X		
W-2	X		
W-3	X		
W-4	X		

Definitions of Susceptibility Per WDNR Administrative Code:

Least Susceptible: Degraded wetlands dominated by invasive species ($\geq 90\%$) such as reed canary grass. Protective area = 10% of avg wetland width, but no less than 10' or more than 30'.

Moderately Susceptible: Fens, sedge meadows, bogs, low prairies, conifer swamps, shrub swamps, other forested wetlands, fresh wet meadows, shallow marshes, deep marshes and seasonally flooded basins. Protective area = 50'.

Highly Susceptible: Outstanding/exceptional resource waters, wetlands in areas of special natural resource interest as specified in s. NR 103.04. Protective area = 75'.

To: Stormwater Management Plan Reviewer
From: Eric J. Thompson, P.E.
Subject: USH 51 and CTH B Development Plan, City of Stoughton
Post-Construction Stormwater Management Master Plan
Date: March 9, 2023

1.0 Introduction

This memorandum summarizes the performance of the stormwater management system for the regional development plan for the land at the southeast corner of USH 51 and CTH 'B' in the City of Stoughton.

The development site area is 181.0 acres. Development will occupy nearly the entire site and an estimated 87.0 acres of new impervious area (including pond surfaces) will be created. Proposed stormwater management features will serve the entire site as well as 201.5 acres of off-site area. Approximately 58.4 acres of off-site area (areas to the north, east, and south of the site) are fully developed, some of which has existing stormwater management practices in place. The lands to the west, across USH 51 are currently undeveloped. Planning efforts are currently underway for the development of the majority of this land.

There are several maps attached to this memo which identify the project location and existing and proposed drainage conditions for the site. The following discussion summarizes important technical aspects of the stormwater management system design.

2.0 Stormwater Management Requirements

This site is subject to the post construction standards of the City of Stoughton (Chapter 10, Article 4 – Erosion Control and Stormwater Management) and the Wisconsin DNR (NR151). Collectively, these standards require:

Peak Discharge Rate Control – Post-development peak discharge rates leaving the site under events ranging from the 1-yr to the 200-yr, 24-hr rainfall must not exceed pre-development rates for the same rainfall events.

Water Quality Treatment – Stormwater runoff from the site must be treated such that there is an 80% reduction in Total Suspended Solids (TSS).

Infiltration – Post-development annual stay-on (infiltration) depths must be at least 90% of predevelopment stay-on depths.

Additionally, because of the existence of a series of landlocked basins to the south of this site, runoff volumes discharged off-site to the south must be maintained at existing levels for events ranging from the 1-yr to the 200-yr, 24-hr rainfall event.

3.0 Existing On-Site Flooding Conditions

The existing site contains four interconnected landlocked basins that capture 100% of runoff flowing onto and through the site (including 125.8 acres west of USH 51 and 11.9 acres north of CTH 'B') such that the site does not discharge to the south under events 2-yr severity and less. In total approximately 19.2 acre-feet of storage exists within these landlocked basins below elevation 896.9. When water levels exceed this elevation, the site will discharge to the south.

The effect of these existing landlocked basins is reflected in existing conditions modeling the effect that these basins have on peak discharge rates and runoff volumes are used to establish post-development stormwater management site discharge requirements.

Note that there is a small portion of the site (11.5 acres) in the extreme northeast corner that discharges directly by gravity with permanent retention of stormwater.

4.0 Proposed Stormwater Management System

Peak discharge rate control, water quality treatment, and infiltration will be provided for the site through the construction of seven (7) new stormwater management ponds and via routing of water through several existing naturally landlock basins. These ponds will be established as paired systems, with upstream wet basins intended to provide water quality pre-treatment prior to discharging to downstream infiltration basins. Collectively the ponds will provide peak discharge rate control, volume control through infiltration, and water quality via sedimentation and infiltration.

The system of interconnected landlocked basins will be preserved as an integral part of the proposed post-construction stormwater management system. There are two features of this integrated system which are specifically pointed out here:

- First, under event greater than the 10-yr event, floodwaters will collect in the landlocked areas as occurs under existing conditions as well as back-into the large infiltration basins as identified as ponds 1115 and 1121.
- Second, while currently not designed, there will be large connected culverts under two roads serving the site that will be larger enough to serve as 'equalizer pipes' such that the otherwise divided storage areas will function as a single basin.

The system of streets, storm inlets, and storm sewer pipes necessary to convey stormwater to the proposed stormwater ponds has not been designed as of the date of this memo. It is currently assumed that 200-yr peak flows will be delivered to the various ponds via storm sewer and overland street conveyance within the street ROW.

5.0 Summary of Stormwater Management Performance

Attached to this memo are maps, modeling data, and calculations documenting the findings and discussion summarized below.

Stormwater Quality Treatment – For purposes of the current design level of detail, stormwater quality treatment provided by the proposed wet detention ponds has been estimated using Stoke’s Law, as opposed to a more formal modeling effort using WinSLAMM. The table below provides estimated TSS reduction for the 2-yr 24-hr design storm for each of the proposed wet ponds.

Table 1
Proposed Wet Pond Annual TSS Reductions

Pond Number	TSS Reduction
1020	89.2%
1016	86.8%
1010	95.3%
4005	86.2%

Nearly 100% of proposed on-site development, as well as 24.9 acres of off-site developed area pass through these ponds.

Infiltration – As with water quality treatment, for purposes of the current design level, post-development infiltration has been evaluated using a method other than use of a WinSLAMM model. In the case, infiltration was evaluated on a design-event basis using HydroCAD. Because of the ability to infiltrate runoff from very large single events it is assumed that the ponds will be able to successfully infiltrate 100% of runoff from the annual average record as required by ordinance standards.

Table 2
Proposed Infiltration Pond Infiltration Capacity

Pond Number	Largest Event Completed Infiltrated
1121	10-yr
1015	2-yr
4006	2-yr

As these ponds all lie downstream from proposed wet detention ponds, and all wet ponds are shown to provide greater than 80% TSS reduction, runoff to each infiltration pond achieves adequate pre-treatment prior to infiltration.

Note – all ponds are assigned a design infiltration rate of 0.5 inches/hour. This rate has been assigned due to the near uniform presence of fine sand throughout the site. It is recognized that, in certain locations, substantial soil corrections may be required to reach native soils with this design texture.

Peak Discharge Rate (& Event-Based Volume) Control – The stormwater management system controls peak discharge rates, at each location where discharge currently occurs, to levels less than existing conditions for events ranging from the 1-yr 24-hr storm to the 200-yr 24-hour storm. For the portion of the site discharging to the south, runoff volumes are also controlled to below existing levels for the 1-yr 24-hr storm to the 200-yr 24-hour storm.

Table 3
Peak Discharge Rates and Runoff Volumes Directed to South

Event (yr)	Existing Conditions		Proposed Conditions	
	Peak Flow (cfs)	Total Volume (ac-ft)	Peak Flow (cfs)	Total Volume (ac-ft)
1	0	0	0	0
2	0	0	0	0
5	4.2	7.581	0.6	5.384
10	4.6	18.308	1.8	13.511
25	5.1	36.429	3.1	29.768
50	5.9	53.369	3.9	45.719
100	32.5	73.431	12.4	64.478
200	68.8	94.560	36.6	84.117

Table 4
Peak Discharge Rates Directed to North

Event (yr)	Existing	Proposed
	Peak Flow (cfs)	Peak Flow (cfs)
1	8.9	3.0
2	12.3	4.4
5	17.9	7.3
10	22.0	10.3
25	26.7	15.5
50	29.8	19.9
100	32.8	24.2
200	36.6	31.3

6.0 Stormwater Modeling – Special Considerations

HydroCAD Modeling – Proposed Conditions Runoff Coefficients

For proposed conditions modeling, runoff coefficients were assigned on a lot-by-lot basis assuming impervious areas based on planned land. All impervious areas were assumed to be directly connected. When constructed, certain sites, as well as the public rights-of-way, will have high percentages of directly connected impervious area; however none would be expected to actually be 100% and many will be far less than 100%. As a result, modeled runoff conditions should be considered to be conservative.

Table 5
Proposed Conditions On-Site Impervious Areas by Land Use Type

Land Use	Assigned ¹	Total Impervious (DCIA)
Commercial	COM	75%
Duplex	DUP	40%
SFR	MDR	25%
Multi-Unit Res	MFR	45%
Office Park	OFF	75%
Open	OPE	0%
Park	PAR	10%
ROW	ROW	92%
Strip Commercial	STR	75%
Water	WAT	100%

1. 'Assigned' refers to coding used in the MSEXcel spreadsheet used to develop runoff curve numbers assigned within the HydroCAD Model

Water surface areas were assigned an RCN of 100, while all other impervious areas were assigned an RCN of 98.

It should be noted that the design for the site originally included a fourth infiltration pond identified as pond 1105. Upon review of design performance, it was determined that this pond was not needed and so it was removed from the HydroCAD model as a pond element. However, the land use reflecting the presence of the pond was left unchanged. It should also be noted that a portion of 'Office Park' land use was assigned to one of the existing land locked kettles. Per the current design concept, reflected in the grading plan included with this submittal, this is not intended for development at this time. Nevertheless, this area is also included within the developed conditions runoff curve number data. The net effect of both these issues adds yet more conservativeness to the design regarding proposed conditions stormwater management.

HydroCAD Modeling – Existing Landlocked Basins.

Modeling of these basins was initially attempted within HydroCAD using separate storage nodes for each basin and standard modeling routines. Close evaluation of model output indicated numerous violations of the hydraulic grade line. Attempts to model the separate storage nodes using the various alternate reach-routing methods resulted in wild oscillations of results (instabilities) which were equally unreliable as a design tool. As a result, it was necessary to combine all the on-site storage into a single node located in the downstream-most landlocked basin on site. To as-accurately-as-possible document the effects of the landlocked portion of each basin, they were entered as separate storage elements for 'dead' volumes below elevation 897 (with discrete bottom 'point' elevations obtained from the Dane County DEM) and for 'live' storage above elevation 897.

As a further complicating matter, it was observed that this site discharges off-site, overland, to a very small wet detention pond west of the terminus of Oakridge Way. This pond discharges via a concrete drop structure with a crest elevation of 896.14 into a 12" RCP storm sewer. When the capacity of this system is exceeded, flows will overtop the natural saddle-point on the southeast corner of the pond at elevation 899.10 and flow overland to the south down Oakridge Way. Because of the restricted capacity of this outlet, it was necessary to incorporate this pond's (limited) storage volume in the last on-site storage node. Storage for the pond was only incorporated above elevation 897, so it did not come 'on-line' until the site discharged overland. The combined hydraulic capacity of the drop structure, 12" storm sewer, and natural overflow were combined as a single 'in-series' outlet in the combined storage node to accommodate limitations in HydroCAD's parallel to in-series data entry limitations.

HydroCAD Modeling – Proposed Landlocked Basins.

As previously introduced, the system of interconnected landlocked basins will be preserved as an integral part of the proposed post-construction stormwater management system. The modeling of these basins was completed in an identical way as performed for the existing conditions assessment with the exception that when floodwaters within the landlocked basin exceed

MEMO

March 9, 2023

elevation 868.5 floodwaters will back-up into the large infiltration basins as identified as ponds 1115 and 1121 and storage within these basins above elevation 868.5 are aggregated into this common storage area. To be sure that stormwater volumes are not double-counted the designs for infiltration basins 1115 and 1121 were established such that 200-yr peak flood elevations in these basins do not exceed elevation 898.5

No native soil infiltration rate is assigned to the landlocked basins in either the existing or proposed conditions HydroCAD model. There is arguably some infiltrative capacity within these basins as evidenced by the fact that there are largely dry basins (there are some wetlands in selected areas) and by the fact that the drainage area tributary to the basins is quite large. It will be a condition of development to better ascertain what the existing level of infiltration is (native soil infiltration rates) so that developed conditions may be designed to preserve or even enhance these rates.

USH 51 Planned Improvements

Existing and proposed development conditions evaluated in this design memo reflect the US51 ROW corridor as it exists today. WisDOT has recently presented to the City and the developer of this site, plans to expand the width of pavement in the ROW and plans to replace the cross-culvert under the highway with a pipe of a larger size. These changes will increase runoff rates and volumes discharging onto the development site. It is MSA's intention that these planned improvements, when complete design information is provided to MSA, will be used to establish a new existing conditions model which will be used as the benchmark against which proposed development plans will be evaluated.

Recent 51 West Development

This evaluation incorporates runoff from a portion of the 51West development. For this analysis it is assumed that the 51 West site is fully developed. Model input for this condition was taken directly from the approved stormwater management plan for the site.

Sandhill Elementary School

The development plan presented in this memo assumes that discharges from the existing detention pond serving the Sandhill Elementary School will be collected and conveyed through this site and into the large wet detention pond serving the eastern portion of the development site. This is noted for purposes of acknowledgement of the need for future infrastructure to accommodate this site.

As an aside, the existing detention pond serving the Sandhill Elementary School is a dry detention pond and as such is credited no water quality treatment benefit. Bringing these flows through the site and into the site's stormwater management system will provide a high level of water quality treatment for this existing fully developed site.

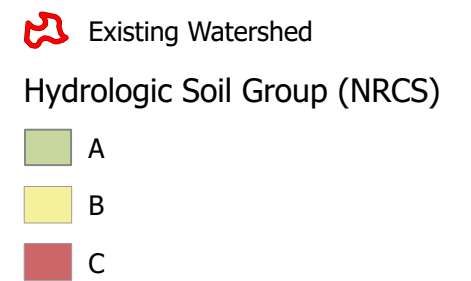
Pond 4005

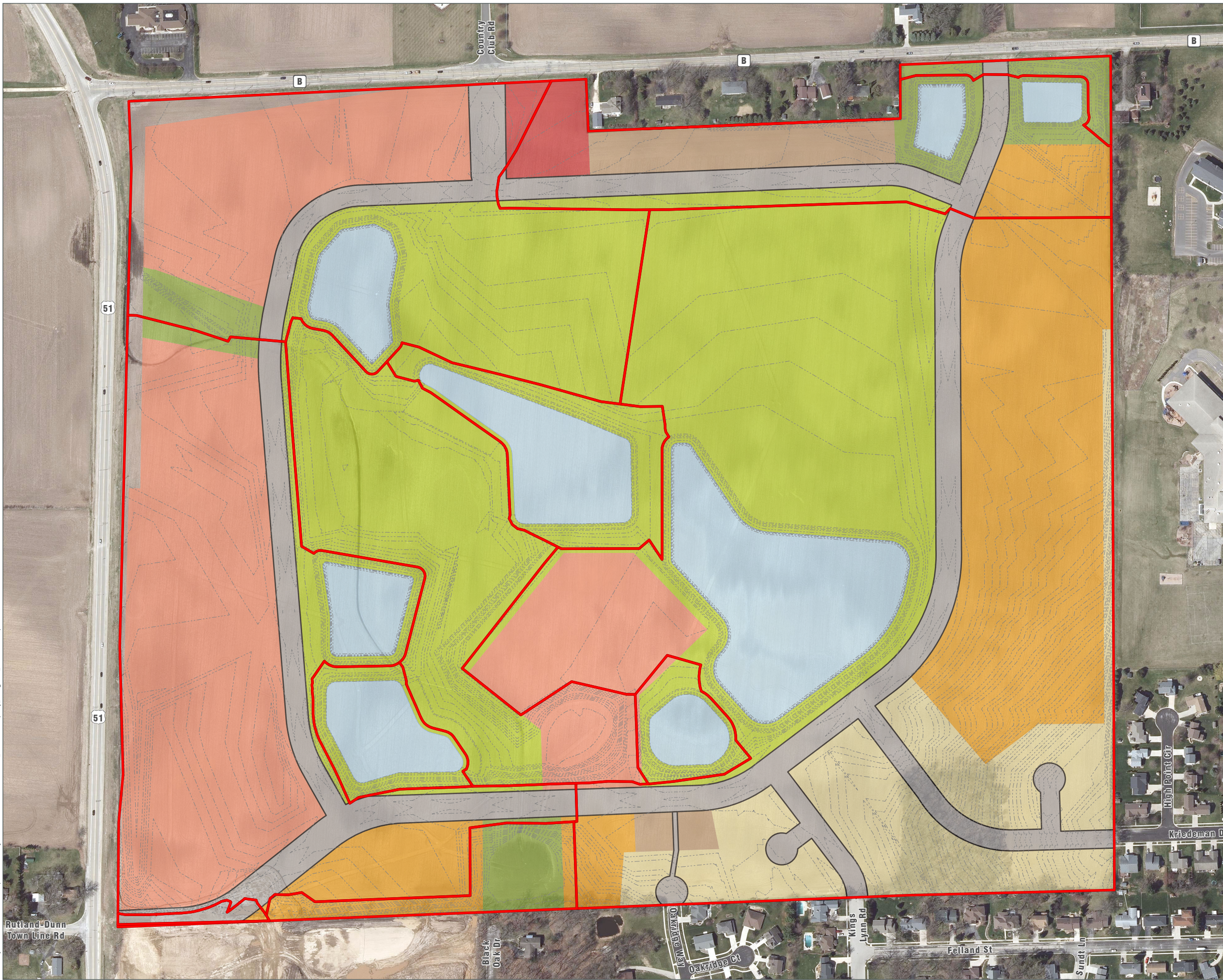
Under existing conditions pond 4005 is a natural low are in the topography south of CTH 'B'. The flood storage provided by this area, coupled with the presence of the comparatively small 30" CMP draining the area under CTH 'B' results in a substantial reduction in flows across CTH 'B'. Development of the portion of the site that drains north, is accommodated by a proposed two-cell system of ponds (a wet pond discharging to an infiltration basin). These ponds are planned to be constructed to function independently of the culvert under CTH 'B'. The ponds will be constructed some distance off-site from the CTH 'B' embankment, allowing some lands off-site to the east to bypass around the pond and flow out the existing culvert under CTH 'B' without increasing peak discharge rates through the culvert or flood elevations upstream (within the ROW) from the culvert.



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Proposed Site Conditions

STI Development Property

City of Stoughton
Dane County, WI

1ft contours

Proposed On-Site Watersheds

Proposed Land Use

- Open Space
- Park
- Off Park
- Commercial, Strip
- Institutional, Misc
- Residential, Medium Density
- Residential, Duplex
- Residential, MultiFamily
- Water
- ROW