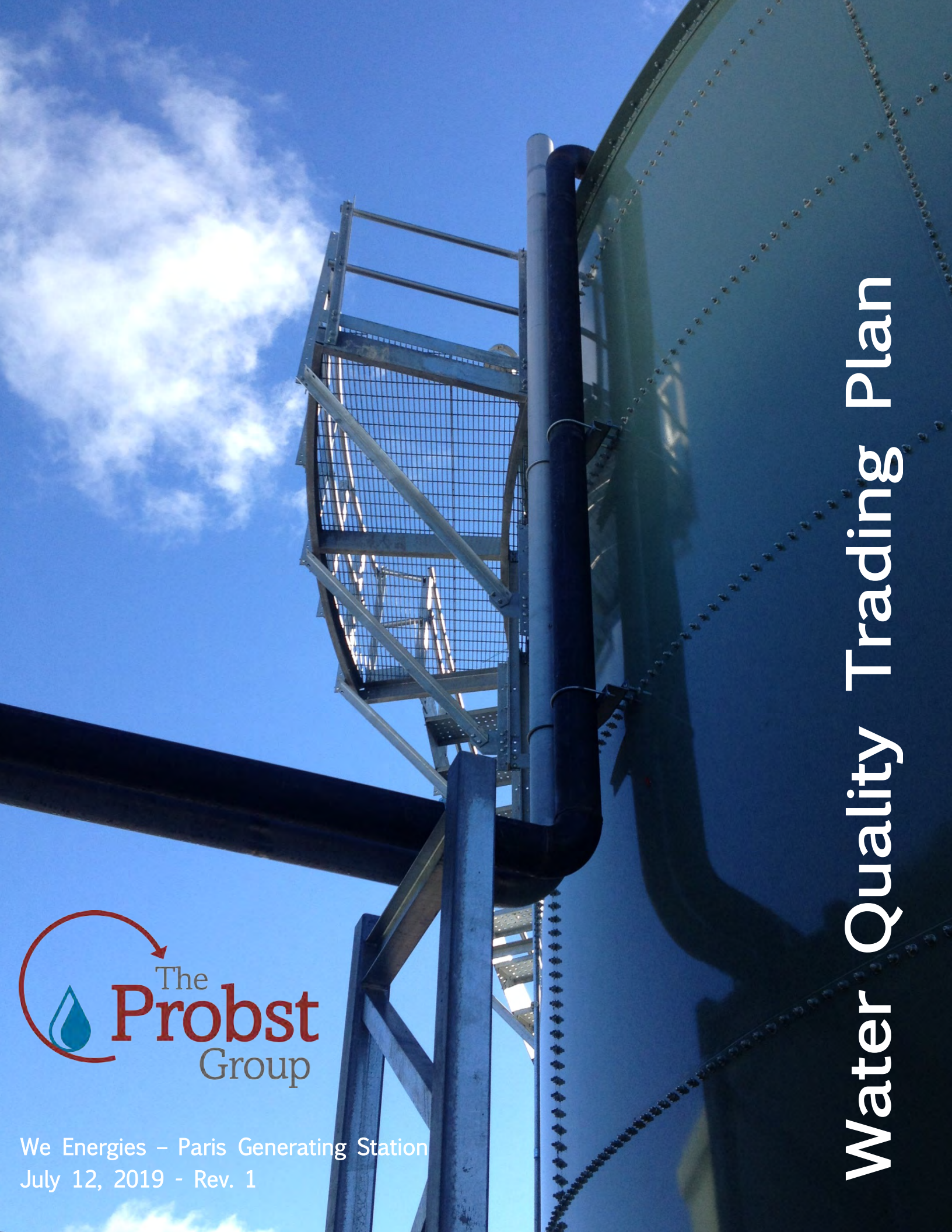

Water Quality Trading Plan

The Probst Group

We Energies – Paris Generating Station

July 12, 2019 - Rev. 1

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1 Introduction

1.1 Background and Purpose

Wisconsin Electric Power Company (doing business as We Energies) owns and operates Paris Generating Station ("PSGS"), a peak-load power plant located in Paris, WI, that is used during hours of high electrical demand. The facility is covered under Wisconsin Pollutant Discharge Elimination System ("WPDES") Permit Number WI-0049131-03-1 which became effective on May 1, 2015. Permit Condition 1.2.4.3 outlines the final total phosphorus ("TP") Water Quality Based Effluent Limits ("WQBEL") that will take effect at Outfall 001. The limits are 0.075 mg/L as a six-month average (May – October and November – April) and 0.225 mg/L as a monthly average. It is We Energies understanding, based on conversations with the Wisconsin Department of Natural Resources ("WDNR"), that these limits will become effective on October 1, 2021.

As required by Permit Condition 2.1, We Energies submitted progress reports to the WDNR regarding the actions taken to reduce sources of phosphorus, assess treatment options, and evaluate alternative approaches to comply with the final total phosphorus WQBELs. The Final Compliance Alternatives Plan was submitted to WDNR on September 28, 2018, and concluded that Water Quality Trading ("WQT") would be the most cost-effective approach to achieve compliance. A Notice of Intent to Conduct Water Quality Trading was included with the September 2018 submittal. An updated Notice of Intent to Conduct Water Quality Trading is included in Appendix A.

This Water Quality Trading Plan summarizes how PSGS proposes to pursue phosphorus WQT and is submitted in accordance with Sections 1.2.4.3 and 1.2.4.5 of the current WPDES permit. PSGS intends to install and maintain permanent vegetative cover (tallgrass prairie, mesic prairie, or wetland) on previously farmed fields within the same HUC-12 subwatershed as PSGS Outfall 001 on property to be owned by We Energies. PSGS will enter into a written trade agreement with the WDNR for conversion of agricultural land to permanent vegetation.

SnapPlus modeling was used to quantify the amount of potentially tradable phosphorus from the fields assuming current farming practices continued, and then the amount after installation and maintenance of a permanent vegetative cover. Using a credit trade ratio of 1.2:1, the total phosphorus water quality trading credits available each year were calculated based on the change in management practice. We Energies will use these credits to demonstrate compliance with the total phosphorus limits in their PSGS WPDES Permit.

1.2 Phosphorus Discharge

PSGS has monitored for total phosphorus in their effluent at Outfall 001 since December 2014. Effluent phosphorus has been optimized to the extent possible and has ranged from 8.62 – 23.10 lbs/yr since that time. We Energies intends to generate more credits than necessary to provide a factor of safety and ensure sufficient credit availability in the future.

1.3 Location

1.3.1 Location of PSGS Outfall 001

Prior to October 2018, PSGS Outfall 001 samples were collected from a culvert where the combined wastewater streams left the fenced-in area of the plant. Thereafter, samples were collected from a manhole upstream of the common site drainage ditch culvert, as approved by WDNR on September 25, 2018. The wastewater travels through an onsite storm water detention basin before it follows a natural drainage pathway to a roadside ditch along 172nd Avenue. The roadside ditch leads to an Unnamed Tributary (WBIC 5040578) to the Des Plaines River. As confirmed by the WDNR on July 30, 2018 (and provided as Exhibit B6 in Appendix B), the point of compliance for the water quality trade is where the PSGS wastewater enters the Unnamed Tributary. This is at approximate latitude 42.65984°N and 88.01742°W.

PSGS Outfall 001 is located in HUC12 Subwatershed 071200040103, which is also known as the Headwaters Des Plaines River Subwatershed. The Headwaters Des Plaines River Subwatershed is part of the larger Headwaters Des Plaines River Watershed (0712000401) in the Des Plaines subbasin (07120004). The Headwaters Des Plaines River Subwatershed is not subject to a total maximum daily load (TMDL) and is not upstream of a watershed subject to a TMDL. Therefore, the phosphorus credits produced from this project will generate credits for the life of the management practices and are considered long-term credits.

1.3.2 Proposed Credit Location

The proposed parcel for the PSGS phosphorus water quality trading project is located within the Town of Paris (Kenosha County, WI) in Section 33 Township 2N Range 21E. This parcel is assigned a Tax Key Number of 45-4-221-333-0400 and is located approximately 5.5 miles south of PSGS. The total parcel size is 57.42 acres, but only 37.9 acres have been cropped in the past. The proposed project site is located downstream of PSGS Outfall 001 in the Headwaters Des Plaines River Subwatershed. The Des Plaines River (WBIC 734000) bisects the fields. Exhibit B1 in Appendix B depicts the location where PSGS Outfall 001 wastewater enters the Unnamed Tributary and the proposed location where the credits will be generated.

2 Existing Conditions and Potentially Tradeable Phosphorus Modeling

2.1 Existing Land Use

The proposed parcel for the WQT project currently consists of 57.42 acres. We Energies intends to split the parent parcel into two parcels and has executed an Options to Purchase Agreement with the current landowner. Prior to finalizing the property purchase, We Energies must complete its due diligence activities (e.g., conduct an ALTA/NSPS survey of the property, obtain any rezonings, receive all governmental approvals). The current landowner will retain ownership of approximately 5 – 6.5 acres as a residential property and We Energies intends to purchase the balance of the property. Most of the acres that were cropped in the past will be owned by We Energies. The uncropped portions that We Energies will own include the Des Plaines River which bisects the property, areas surrounding the river that remain too wet to be cropped, and a mowed area in the northwest corner of the property. Most of the previously cropped land will be converted to permanent vegetation to generate credits for this water quality trade. Small portions of previously cropped land will be retained by the current landowner. The uncropped portions and the portions retained by the current landowner were not modeled and will not be used in the water quality trade.

The farmer refers to the fields as "East" and "West". The "East" field corresponds to the B and C fields discussed further in Section 2.2, whereas the "West" fields correspond to the A fields. The cropped fields have been managed in a two-year rotation of soybeans and corn.[1] Tilling practices in 2015 – 2017 consisted of Fall chiseled tilling, disked. The fields were not tilled after crops were harvested in Fall 2018, but instead will be tilled prior to planting the crop in 2019 (i.e., Spring chiseled tilling, disked).

Commercially purchased fertilizer was applied during the years when soybeans were planted. Once the fields are taken out of production and converted to permanent vegetation, the fertilizer will no longer be applied. Because the previously applied nutrients were in the form of commercially purchased fertilizer, rather than manure generated on the farm, the proposed trade will not result in increased nutrient loading elsewhere in the watershed. Additional details on fertilizer application amounts are provided in Section 2.3 below.

Appendix C includes information regarding existing farming practices including a completed Existing Farming Practices (EFP) questionnaire completed by the property owner's tenant farmer (Exhibits C1 and C2) as well as Natural Resources Conservation Service (NRCS) CropScape maps (Exhibits C3 – C5) to confirm the stated cropping

[1]Soybeans were planted and harvested during the odd years (e.g., 2015, 2017, etc.) and corn was planted and harvested during the even years (e.g., 2016, 2018).

practices. Exhibit C6 is also provided to show that the crop rotation continued in 2018. CropScape data is not yet available for 2019.

Spring 2019 weather conditions, including frequent rain and cooler temperatures, have caused delays in planting throughout the state, including the proposed parcel for the WQT project. The property owner's tenant farmer intends to continue the crop rotation by planting soybeans once the field soil conditions are acceptable, weather is adequate, and planting can be scheduled.

2.2 *Soil Sampling*

Soil sampling was completed on two different dates in the Fall of 2018. The initial sampling date in October sampled Fields A and B. Following preliminary modeling with these sample results, it became apparent that additional land would be needed to generate sufficient credits for We Energies. As a result, Field C was sampled in November and the modeling was updated.

As the Restoration Plan (Appendix I) was being developed, it became clear that a portion of the property was too wet to be planted in prairie grasses and would need to be converted to wetland instead. Fields A, B, and C were subsequently split into relative wet and relative dry subsections (Exhibit B2). Because these divisions did not match exactly with the soil sampling completed previously, averages of the soil sampling results were used for all fields. For clarity, Table 1 below lists original WQT field nomenclature for the samples and the average of soil sample results used in the modeling. For example, the average of results for samples A1 and A2 were used in the model for Fields Ap1, Ap2, and Aw.

Table 1
Soil Sampling Nomenclature

Farmer Field Name	Original WQT Field Name	Original Sample Number	Final WQT Field Name
West	A	1	Ap1, Ap2, Aw
		2	
East	B	1	Bp, Bw1, Bw2
		2	
	C	1	Cp2
		2	
		3	Cp1, Cw
		4	
		5	

A NRCS soils map of the fields is provided as Exhibit B3 in Appendix B. It should be noted that the NRCS map shows Fields Bw1, Bw2, and Cw with a predominant soil type of Ww. This is an alluvial soil type which results from upstream sediment being deposited when the Des Plaines River floods. Because of the alluvial nature of this soil type, it is not available as a soil type in SnapPlus. A soil type of Dt was used as a surrogate soil type for modeling purposes of Fields Bw1, Bw2, and Cw, as recommended by soil scientists from the University of Wisconsin-Madison. Use of the surrogate is appropriate because soil type Dt has comparable properties to soil type Ww. Both soil types are poorly drained, located in areas with a high water table, experience frequent ponding, and found in areas with similar slopes (0-2%). As such, both soil types exhibit a low runoff class and are considered hydric soils. Furthermore, at the proposed project parcel, soil type Dt is located in the same depressional landscape as soil type Ww.

A map of the soil sample locations using original WQT sample nomenclature (Exhibit D1), lab reports (Exhibit D2), a summary of the soil sample results (Exhibit D3), and a map of the soil sample locations using the final WQT field nomenclature (Exhibit D4) is provided in Appendix D. The average sample results were used to calculate the current and future potentially tradeable phosphorus for the water quality trade. Results of the SnapPlus reports using these site-specific soil conditions can be found in Appendices E and F.

2.3 Modeled PTP Under Current Conditions

SnapPlus V2 (version 18.0.18313.1015) was used to model the fields under current conditions. The same cropping practices were used on all fields in any given year. The fields have been managed in a two-year rotation of soybeans and corn. The fields also had the following fertilizer applications:

- 2015:
  - Fields Ap1, Ap2, Aw: 191.5 lb/ac Diammonium phosphate (DAP) and 484.7 lb/ac Potassium Chloride
  - Fields Bp, Bw1, Bw2, Cp1, Cp2, Cw: 221.6 lb/ac Diammonium phosphate (DAP) and 443.7 lb/ac Potassium Chloride
- 2016: No Nutrients Applied
- 2017:
  - Fields Ap1, Ap2, Aw: 145.5 lb/ac Monoammonium phosphate (MAP) and 241.6 lb/ac Potassium Chloride
  - Fields Bp, Bw1, Bw2, Cp1, Cp2, Cw: 145.4 lb/ac Monoammonium phosphate (MAP) and 240.3 lb/ac Potassium Chloride
- 2018: No Nutrients Applied

This cropping and application data were modeled as a 2-year rotation through the year 2050. Tables 2 - 5 below summarize the modeling results through 2024 (expected permit term), and the long-term modeling results for final credit availability are included as Appendix G. As described in WDNR's "Guidance for Implementing Water Quality Trading in WPDES Permits," Guidance Number 3800-2013-04, dated August 21, 2013 ("WQT Guidance"), pollution reduction credits remain available for trading as long as the generator and user agree to continue trading and the measure or management practice that generates the credits remains effective. See WQT Guidance at Section 2.15.

Appendix E includes the following SnapPlus reports assuming current cropping practices continued into the future. The Soil Test Report and Fields Data and 590 Assessment Plan were generated once for the farm. All other reports, except for the P Trade Report, were generated for two crop rotations (2015 – 2022) based directly on crops grown, nutrients applied, and tilling practices. Therefore, these reports would simply repeat for each crop rotation. The P Trade Report was generated for informational purposes through 2050.

- Narrative and Crop Report
- Soil Test Report
- Application Summary Report
- Fields Data and 590 Assessment Plan
- Nutrient Management Report
- P Trade Report

Table 2 summarizes the Potentially Tradeable Phosphorus (PTP) from the SnapPlus P Trade Report using the current crop and nutrient application rotation. Nomenclature of the fields can be summarized as follows:

- Fields with a subscript of "p" indicate relatively dry areas which will be planted in tallgrass prairie or mesic prairie and were modeled as non-harvested grassland in SnapPlus.
- Fields with a subscript of "w" indicate relatively wet areas which will be planted in wetland and were modeled as reed canary grass in SnapPlus.
- Numbers included in the subscripts simply designate more than one wet or dry area within a given field (Field A, B, or C).

Table 2
SnapPlus Potentially Tradable Phosphorus Report – Current Conditions

	Acres	2020	2021	2022	2023	2024
Field A_{p1}	1.0	5.51	3.47	5.85	3.44	5.43
Field A_{p2}	4.1	12.80	8.83	13.55	8.88	12.56
Field A_w	4.1	12.80	8.83	13.55	8.88	12.56
Field B_p	6.5	23.68	15.08	25.14	15.70	23.41
Field B_{w1}	1.0	2.36	1.73	2.50	1.85	2.32
Field B_{w2}	0.2	0.47	0.35	0.50	0.37	0.46
Field C_{p1}	2.5	8.72	5.59	9.26	5.83	8.62
Field C_{p2}	10.7	28.55	19.61	30.27	20.77	28.17
Field C_w	7.5	16.29	12.01	17.24	12.91	15.97
TOTAL	37.6	111.18	75.48	117.87	78.63	109.51

2.4 *Modeled PTP with Proposed Permanent Vegetation*

The fields were then modeled by replacing the current crop rotation with permanent vegetation. Dry areas were modeled with non-harvested grassland, while wet areas were modeled using reed canary grass. The same SnapPlus reports provided for the current crop rotation are available for the permanent vegetation modeling in Appendix F. The Nutrient Management Plan Report was extended through 2023, after which time the results did not change for all subsequent years. Table 3 below summarizes the PTP given in the SnapPlus P Trade Report for future conditions (through 2024) with permanent vegetation.

Table 3
SnapPlus Potentially Tradable Phosphorus Report – Permanent Vegetation*

	Acres	2020	2021	2022	2023	2024
Field A_{p1}	1.0	0.83	0.51	0.41	0.35	0.33
Field A_{p2}	4.1	2.79	1.90	1.60	1.41	1.33
Field A_w	4.1	4.24	2.12	1.60	1.27	1.11
Field B_p	6.5	3.12	1.78	1.44	1.26	1.19
Field B_{w1}	1.0	0.85	0.44	0.33	0.26	0.23
Field B_{w2}	0.2	0.17	0.09	0.07	0.05	0.05
Field C_{p1}	2.5	0.97	0.49	0.38	0.32	0.30
Field C_{p2}	10.7	3.74	2.13	1.72	1.50	1.42
Field C_w	7.5	5.06	2.29	1.60	1.18	0.96
TOTAL	37.6	21.78	11.75	9.16	7.62	6.93

*This table provides modeled output for all years. However, credits will not be used until the prairie and wetland are fully established.

2.5 *Calculation of Change in PTP Based on Modified Land Use*

The potentially tradable phosphorus was calculated for the property by comparing the modeled results of the current agricultural practices to the permanent vegetation land use. Table 4 is a calculation of the difference of the values in Tables 2 and 3 above.

This table does not incorporate the trade ratio which is discussed further in Section 3 of this report. The trade ratio must be included to determine final credits generated.

Table 4
Calculated Potentially Tradable Phosphorus*‡

	Acres	2020	2021	2022	2023	2024
Field A_{p1}	1.0	4.67	2.96	5.44	3.08	5.10
Field A_{p2}	4.1	10.01	6.93	11.95	7.47	11.23
Field A_w	4.1	8.56	6.70	11.95	7.61	11.45
Field B_p	6.5	20.56	13.30	23.69	14.44	22.22
Field B_{w1}	1.0	1.51	1.29	2.17	1.58	2.09
Field B_{w2}	0.2	0.30	0.26	0.43	0.32	0.42
Field C_{p1}	2.5	7.75	5.09	8.88	5.51	8.32
Field C_{p2}	10.7	24.82	17.48	28.55	19.27	26.75
Field C_w	7.5	11.22	9.72	15.65	11.73	15.01
TOTAL	37.6	89.40	63.73	108.71	71.01	102.59

*This table uses modeled output for all years to perform the potentially tradeable phosphorus calculation. However, credits will not be used until the prairie and wetland are fully established.
‡Trade Ratio not incorporated

3 Trade Ratio Calculation

The PTP generated by the SnapPlus modeling is adjusted by the applicable trade ratio to determine the amount of credits the credit user can receive for the management practice. As described in WDNR's 2013 WQT Guidance, the trade ratio is the sum of the delivery, downstream, equivalency, and uncertainty factors less any habitat adjustment factor. The trade ratio can be summarized as:

Trade Ratio = (Delivery + Downstream + Equivalency + Uncertainty – Habit Adjustment):1

See WQT Guidance at Section 2.11. For trades between point sources and nonpoint sources, there is a minimum trade ratio of 1.2:1. See WQT Guidance at Section 2.11.6.

As described in further detail below, the management practices implemented for this trade result in the minimum trade ratio of 1.2:1.

3.1 Individual Trade Ratio Factors

3.1.1 Delivery factor:

The delivery factor used for the proposed trade is listed below.

Delivery = 0

As discussed earlier, the proposed fields subject to the permanent vegetative cover management practice are within the same HUC12, the Headwaters Des Plaines River Subwatershed, as PSGS Outfall 001. Because the proposed fields are within the same HUC12 as the Outfall, the delivery factor is not needed due to the negligible impacts of fate and transport of phosphorus at this scale. See WQT Guidance at § 2.11.1.

3.1.2 Downstream factor:

The downstream factor used for this proposed trade is listed below.

Downstream = 0.1

The proposed project site is located downstream of PSGS Outfall 001 and therefore requires a downstream factor. See WQT Guidance at Section 2.11.2. Calculation of the downstream factor was done using WDNR's Pollutant Load Ratio Estimation Tool web-based application (PRESTO-lite) and Section 2.11.2 of the WQT Guidance. The PRESTO-lite map and associated report are provided as Exhibit B4 in Appendix B.

PRESTO-lite estimated the average annual nonpoint phosphorus load to be 673 lbs of phosphorus for the 211.2-acre subcatchment in which Outfall 001 is located. This is equal to 3.19 lbs/ac of phosphorus in the subcatchment. Upstream acreage was determined using the measurement function of the Surface Water Data Viewer. By multiplying the measured 178.16 upstream acres by 3.19 lbs/ac, the total nonpoint phosphorus load at the point of discharge is 568 lbs. The maximum phosphorus load expected to be discharged by PSGS is 30 lbs/year. Therefore, the phosphorus discharge from PSGS will be 5.3% of the total current phosphorus load at the point of discharge. Using Section 2.11.2, Table 2 of the WQT Guidance, the proposed project site will have a downstream factor of 0.1.

3.1.3 Equivalency factor:

The equivalency factor used for this proposed trade is listed below.

Equivalency = 0

The permanent vegetative cover management practice on the Fields will reduce phosphorus loadings to the subwatershed. PSGS is using the phosphorus credits generated by the permanent vegetative cover management practice to comply with the total phosphorus limits at Outfall 001. Because total phosphorus reductions are being used to generate total phosphorus credits, an equivalency factor is not needed (i.e., it is zero). See WQT Guidance at § 2.11.3, Table 3.

3.1.4 Uncertainty factor:

The uncertainty factor used for this proposed trade is listed below.

Uncertainty = 1

According to Section 2.11.4 of the WQT Guidance, the uncertainty factor is "calculated based on the effectiveness of management practices over various flow or precipitation regimes, the general effectiveness of the practice, and the ease of verification that the management practice is in place and operating effectively." Table 4 of the WQT Guidance lists management practices with default uncertainty factors. As previously described, the fields will be placed in permanent vegetative cover, either tallgrass prairie, mesic prairie, or wetland. According to Table 4 of the WQT Guidance, land in perennial vegetation that was established and is maintained consistent with NRCS Technical Standard 327 results in an uncertainty factor of 1. Table 4 of the WQT Guidance also lists conversion of agricultural land back to wetland consistent with NRCS Technical Standard 657 with an uncertainty factor of 1. See WQT Guidance at § 2.11.4, Table 4.

3.1.5 Habitat Adjustment factor:

The habitat adjustment factor used for this proposed trade is listed below.

Habitat Adjustment = 0

While the Des Plaines River is listed as impaired for Total Phosphorus and the proposed project will be converting a portion of the agricultural fields back to wetland using NRCS Technical Standard 657, a habitat adjustment factor was not calculated. See WQT Guidance at § 2.11.5.

3.2 Calculation of Trade Ratio Based on Individual Factors

Inserting the above factors into the WQT Guidance's trade ratio formula results in a trade ratio of 1.1:1.

Trade Ratio = (Delivery + Downstream + Equivalency + Uncertainty – Habit Adjustment):1

Trade Ratio = (0 + 0.1 + 0 + 1 – 0):1

Trade Ratio = 1.1:1

Because the minimum allowed trade ratio by WDNR is 1.2:1, PSGS will use a trade ratio of 1.2:1 for the proposed project site.

4 Credit Generation Calculation

For each year, the credit generated from the management practice is the difference between the PTP based on SnapPlus modeling assuming the prior crop rotation was continued and the PTP based on SnapPlus modeling assuming a permanent vegetative cover is installed and maintained on the Fields, divided by the credit ratio as shown in the equation below. Table 5 shows the results of this calculation for each field for each year through 2024. Long-term modeling results (beyond 2024) for final credit availability are included as Appendix G.

Phosphorus Credits Per Year = (PTP Assuming Crops Rotation Continued – PTP Assuming Permanent Vegetative Cover) ÷ trade ratio

Table 5
Available TP Credits for Proposed Project Site*

	Acres	2020	2021	2022	2023	2024
Field A_{p1}	1.0	3.89	2.47	4.53	2.57	4.25
Field A_{p2}	4.1	8.34	5.77	9.96	6.22	9.36
Field A_w	4.1	7.13	5.58	9.96	6.34	9.54
Field B_p	6.5	17.13	11.08	19.75	12.03	18.52
Field B_{w1}	1.0	1.26	1.07	1.80	1.32	1.74
Field B_{w2}	0.2	0.25	0.21	0.36	0.26	0.35
Field C_{p1}	2.5	6.46	4.24	7.40	4.59	6.93
Field C_{p2}	10.7	20.68	14.57	23.79	16.06	22.29
Field C_w	7.5	9.35	8.10	13.04	9.78	12.51
TOTAL	37.6	74.50	53.11	90.60	59.18	85.49

*This table uses modeled output for all years to calculate the TP credits available. However, credits will not be used until the prairie and wetland are fully established.

For example, in 2022 for Field B_p:

PTP Assuming Crop Rotation Continues: 25.14 lbs TP/yr (from Table 2)
PTP Assuming Permanent Vegetative Cover: 1.44 lbs TP/yr (from Table 3)
Difference: 23.69 lb TP/yr (25.14 – 1.44 from Table 4)
Trade ratio: 1.2:1 (from Section 3.2)
PTP including Trade Ratio: 19.75 lbs TP/yr (23.69/1.2)

Native seeding, for the establishment of the permanent vegetation, will likely occur in late Fall 2019 after the soybean crop has been harvested. Full establishment of the prairie and wetland planting is expected well in advance of the final limits taking effect in October 2021.

5 Restoration Plan

A Restoration Plan has been developed by an ecologist from OTIE[2] and has been included as Appendix I. The plan outlines what soil preparation, seed mix, erosion control measures, and other measures are required to install the native prairie consistent with NRCS Technical Standard 327 and wetland consistent with NRCS Technical Standard 657. The seed mix includes all native forbs, grasses, sedges, and rushes. The plan is specific to each community type and a map is included. The plan outlines other activities that may or may not be required to establish the prairie & wetland during the first year.

Plans for operation & maintenance were also included in the Restoration Plan. Sections 6 and 7 of the Restoration Plan outline regular maintenance and inspection requirements to keep the prairie and wetland planting healthy.

6 Timeline

6.1 Schedule for WQT Implementation

Date[1]	Action
April thru October 2019	Property Due Diligence Activities (e.g., ALTA/NSPS survey of the property, rezoning requirements, governmental approvals)
October 1, 2019	Receive reissued WPDES Permit WI-0049131-04 incorporating WQT as an alternative approach to phosphorus WQBEL compliance
October 2019	Finalize property purchase
Fall 2019	Initial Planting of prairie/wetland
May thru August 2020	Approximately 3 inspections will occur at least 1 month apart to review management practice establishment
June thru October 2020	Mowing and herbicide application as needed for weed control
By October 1, 2021	Prairie & wetland established (bare spots greater than 100 yd^2 will be reseeded)
By October 1, 2021	PSGS will follow the Restoration Plan for operation and maintenance activities after this date. The prairie & wetland will be maintained as long as the water quality trade is in use.

[1]The 2019 dates are highly dependent on the property due diligence activities, the WPDES Permit being reissued on time, and weather conditions.

[2]Oneida Total Integrated Enterprises (OTIE) is a full-service, multi-discipline engineering, science and construction management company owned by the Oneida Nation of Wisconsin as a subsidiary under the Oneida ESC Group.

7 Inspections and Reporting

7.1 *Water Quality Trading Management Practice Registration*

Management practices will not produce credits until fully established and registered with WDNR. A blank Registration Form 3400-207 for Water Quality Trading Management Practice Registration ("Practice Registration Form") is included in Appendix I. This form will be filled out and submitted to WDNR after the management practices have been properly installed and are fully established and effective. We Energies will file the completed Practice Registration Form separately from this plan. The Practice Registration Form must be submitted before October 1, 2021.

7.2 *Monthly Certification and Reporting*

Each month, PSGS shall certify that the permanent vegetative cover management practice installed to generate phosphorus reduction credits is operated and maintained in a manner consistent with that specified in this Water Quality Trading Plan or a statement noting noncompliance with this Plan. A certification of compliance may be made by including the following statement as a comment on the monthly discharge monitoring report ("DMR"):

> I certify that to the best of my knowledge the management practices identified in the approved water quality trading plan as the source of phosphorus reduction credits are installed, established and properly maintained.

Usage and reporting of phosphorus credits will also occur on a monthly basis and be submitted on the DMRs.

7.3 *Annual Inspections*

Once per year, a qualified employee or representative will inspect the project site generating the phosphorus reduction credits to confirm implementation of the permanent vegetative cover management practice (tallgrass prairie, mesic prairie, or wetland) and that the management practice is being appropriately maintained. This annual inspection will occur during the growing season and will include representative photographs.

7.4 *Notification of Problems with Cover Management Practice*

PSGS will notify WDNR verbally within 24 hours of becoming aware that phosphorus reduction credits used or intended for use by PSGS are not being implemented or generated as set forth in this Water Quality Trading Plan. Additionally, within five (5) days of becoming aware of noncompliance, written notification will be provided to WDNR. The written notification will include the nature of the noncompliance, a description of how the issues will be addressed, and an appropriate timeline to address

the issues. PSGS shall work to rectify such problems in accordance with the Restoration Plan.

7.5 Annual Water Quality Trading Report

PSGS shall report to WDNR by January 31st of each year the following:

- The number of phosphorus reduction credits (lbs/month) used each month of the previous year to demonstrate compliance;
- The inspection reports for the management practices that generated the phosphorus reduction credits used during the previous years; and
- Identification of noncompliance or failure to implement any terms or conditions of WPDES permit WI-0049131 with respect to water quality trading that have not been reported in discharge monitoring reports.

7.6 WDNR Right to Inspect

Any duly authorized officer, employee, or representative of WDNR shall have the right to access and inspect the credit generating areas included in the trading plan, so long as the We Energies trade agreement with WDNR and this plan are in effect. WDNR must provide reasonable notice to We Energies prior to the project site visit or inspection to ensure that adequate personnel can be scheduled to accompany WDNR.

8 Certification Statement

I certify as the authorized representative that, to the best of my knowledge and belief, the information provided in this Water Quality Trade Report is true, accurate and complete.

Paul J. Spicer
Senior Vice President - Power Generation

July 12th, 2019
Date

APPENDIX A

Notice of Intent (NOI) to Conduct Water Quality Trading

State of Wisconsin
Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921
dnr.wi.gov

Notice of Intent to Conduct Water Quality Trading

Form 3400-206 (1/14)

Notice: Pursuant to s. 283.84, Wis. Stats., and ch. NR 217 Wis. Adm. Code, this form must be completed by any WPDES permittee that is using water quality trading as a method of complying with a permit limitation. Failure to complete this form would not result in penalties. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Applicant Information

Permittee Name	Permit Number	Facility Site Number
WI Electric Power Co - Tn of Paris	WI- 0049131-04	

Facility Address	City	State	ZIP Code
335 172nd Ave	Union Grove	WI	53182

Project Contact Name (if applicable)	Address	City	State	ZIP Code
Lynn Morrison - Probst Group	17035 W Wisconsin Ave Suite 120	Brookfield	WI	53005

Project Name
We Energies PSGS Water Quality Trade

Receiving Water Name	Parameter(s) being traded	HUC 12(s)
Unnamed Trib WBIC 5040578	Total Phosphorus	071200040103

Is the permittee in a point or nonpoint source dominated watershed?
(See PRESTO results - http://dnr.wi.gov/topic/surfacewater/presto.html)

- ○ Point source dominated
- ◉ Nonpoint source dominated

Credit Generator Information

Credit generator type (select all that apply):

- ☐ Permitted Discharge (non-MS4/CAFO)
- ☐ Permitted MS4
- ☐ Permitted CAFO
- ☐ Urban nonpoint source discharge
- ☒ Agricultural nonpoint source discharge
- ☐ Other - Specify: _____

Are any of the credit generators in a different HUC 12 than the applicant?

- ○ Yes; HUC 12: _____
- ◉ No
- ○ Unsure

Are any of the credit generators downstream of the applicant?

- ◉ Yes
- ○ No
- ○ Unsure

Will a broker/exchange be used to facilitate trade?

- ○ Yes; Name: _____
- ◉ No
- ○ Unsure

Point to Point Trades (Traditional Municipal / Industrial Discharge, MS4, CAFO)

Discharge Type	Permit Number	Name	Contact Address	Is the point source credit generator currently in compliance with their permit requirements?
○ Traditional ○ MS4 ○ CAFO				○ Yes ○ No ○ Unsure
○ Traditional ○ MS4 ○ CAFO				○ Yes ○ No ○ Unsure
○ Traditional ○ MS4 ○ CAFO				○ Yes ○ No ○ Unsure
○ Traditional ○ MS4 ○ CAFO				○ Yes ○ No ○ Unsure
○ Traditional ○ MS4 ○ CAFO				○ Yes ○ No ○ Unsure

Point to Nonpoint Trades (Non-permitted Agricultural, Non-Permitted Urban, etc.)

List the practices that will be used to generate credits:

Conversion of cropped agricultural land to permanent vegetation (prairie or wetland) with land located in the same HUC-12 as the discharge.

Method for quantifying credits generated:
- ☐ Monitoring
- ☒ Modeling, Names: SnapPlus
- ☐ Other: _____

Projected date credits will be available: 10/01/2021

The preparer certifies all of the following:

- I am familiar with the specifications submitted for this application, and I believe all applicable items in this checklist have been addressed.
- I have completed this document to the best of my knowledge and have not excluded pertinent information.

Signature of Preparer	Date Signed
	3/28/2019

Authorized Representative Signature

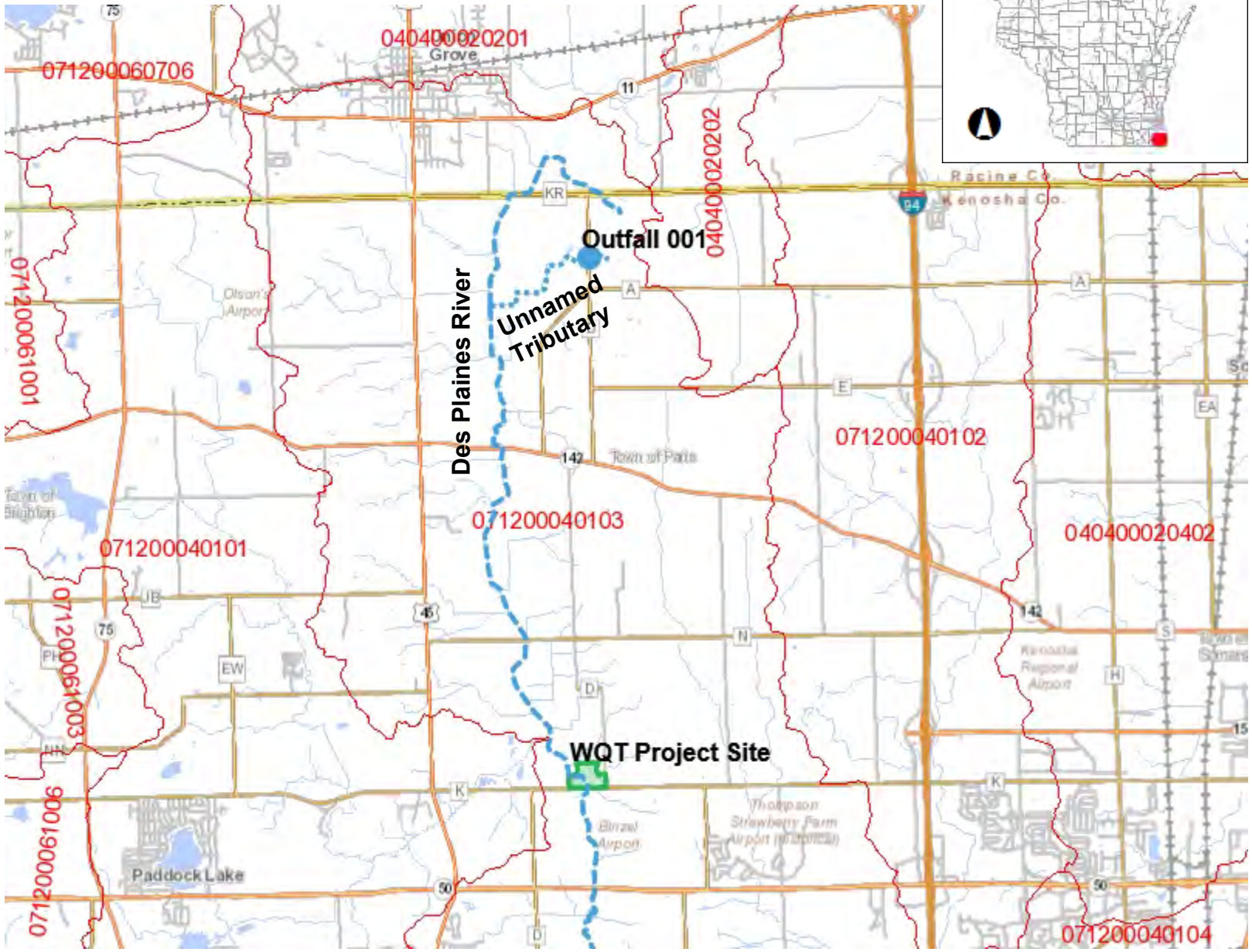
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision. Based on my inquiry of those persons directly responsible for gathering and entering the information, the information is, to the best of my knowledge and belief, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

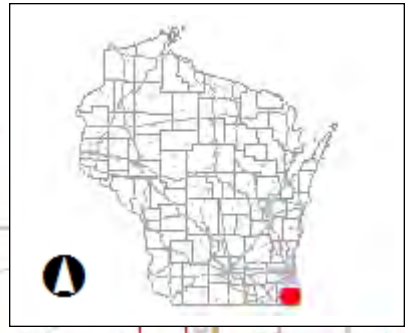
Signature of Authorized Representative	Date Signed
	3/28/19

APPENDIX B

Watershed, Subwatershed, and Field Maps

We Energies - PSGS Outfall and WQT Project Site





Legend

- 12-digit HUCs (Subwatersheds)
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water

3.0 0 1.50 3.0 Miles

NAD_1983_HARN_Wisconsin_TM

1: 95,040

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Exhibit B1

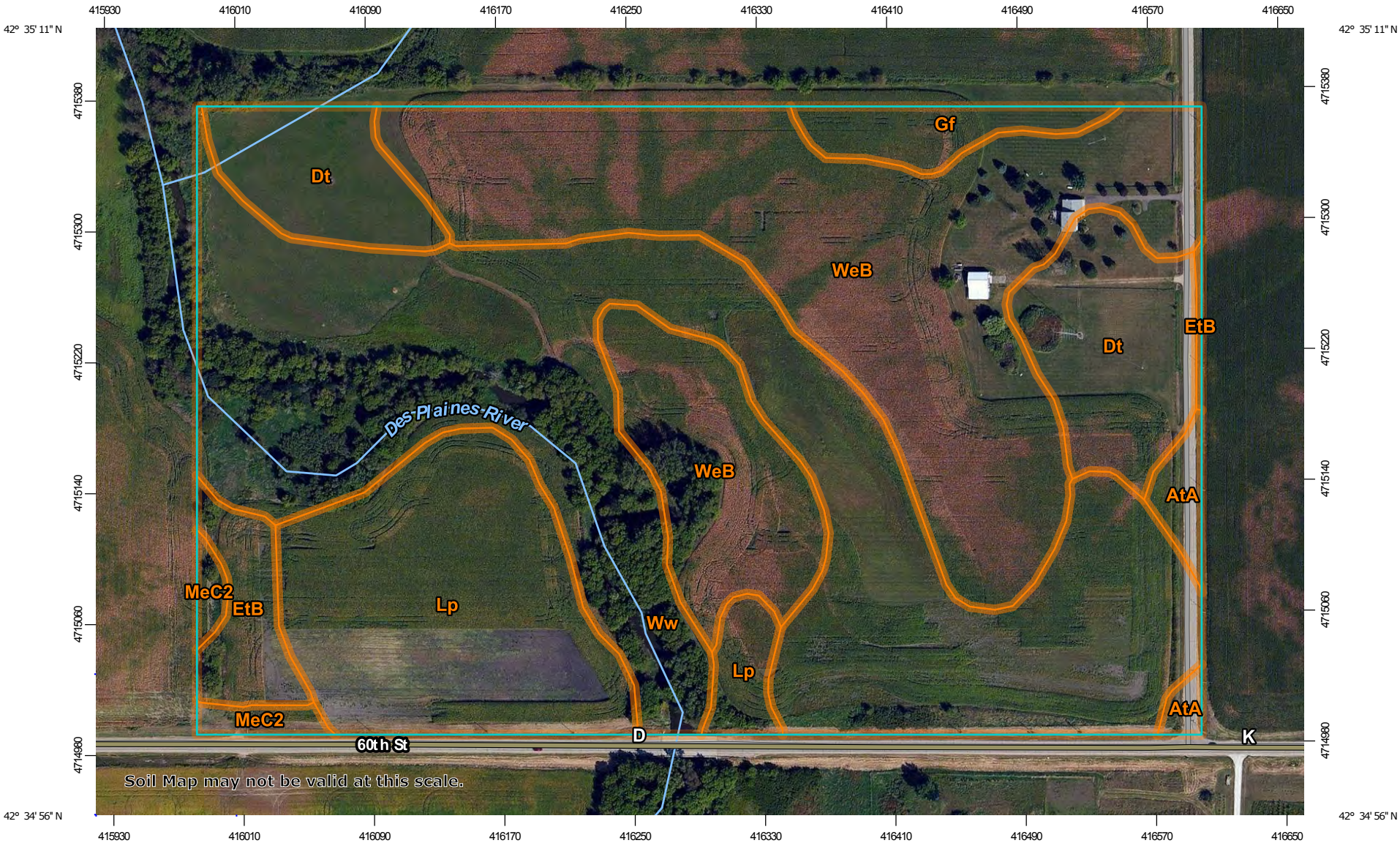
2019.06.06 Trade Field Map

Farm: Ford Property, V18 Generated:6/6/2019, Crop year: 2019, Township Range Section:2N 21E s33

- Counties
- Township/Range
- Areas contributing runoff to direct conduits to groundwater
- Nutrient prohibited areas (buffers vary by feature)
- Nutrient prohibited areas (drawn manure prohibited areas)
- Grassed waterway
- Non-eroding channel
- Ephemeral erosion channel
- Ditch
- Gully
- Headland stacks
- Not farmed
- Grass filter area
- Vegetated buffer
- Non-metallic mine
- Water
- Sinkhole/other karst feature
- Other
- Soil samples
- County Defined Karst Features
- Fields
- Drinking Well
- Public well
- Irrigation well
- Sinkhole
- Non-metallic mine
- Fractured bedrock at surface
- Other direct conduit
- Tile outlet

Exhibit B2

Soil Map—Kenosha and Racine Counties, Wisconsin
(We Energies WQT Field)



Map Scale: 1:3,390 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

Exhibit B3

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kenosha and Racine Counties, Wisconsin
Survey Area Data: Version 15, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 29, 2011—Mar 28, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

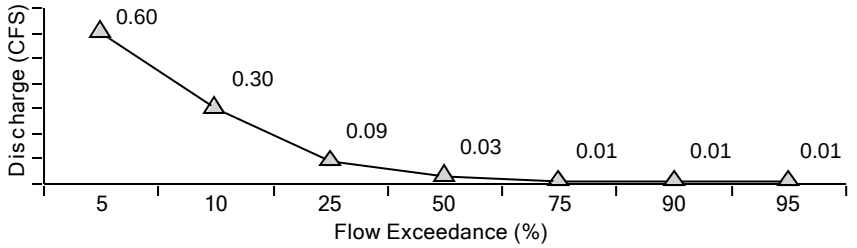
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	0.7	1.2%
Dt	Drummer silt loam, gravelly substratum	5.7	9.7%
EtB	Elliott silty clay loam, 2 to 6 percent slopes	1.5	2.5%
Gf	Granby fine sandy loam	1.2	2.1%
Lp	Lawson silt loam, calcareous variant	8.2	14.0%
MeC2	Markham silt loam, 6 to 12 percent slopes, eroded	0.6	1.0%
WeB	Warsaw loam, 2 to 6 percent slopes	18.8	32.0%
Ww	Wet alluvial land	22.1	37.6%
Totals for Area of Interest		**58.8**	**100.0%**

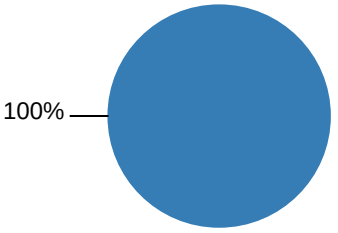
PRESTO-Lite Watershed Delineation Report

Reach ID: 200007277	
Watershed Name: Headwaters Des Plaines River	
Waterbody Name: Unnamed	
HUC08: Des Plaines River	
Watershed Area: 0.33 mi²	
Average Annual Precipitation: 33.50in	

Stream Flow

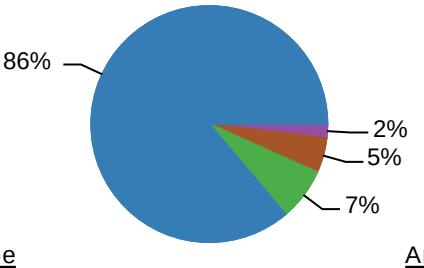


Tributary Stream Type



Type	Length
Macroinvertebrates	818 ft
Coldwater	0 ft
Cool-Cold Headwater	0 ft
Cool-Cold Mainstem	0 ft
Cold Headwater	0 ft
Cold Mainstem	0 ft
Large River	0 ft
Warm Headwater	0 ft
Warm Mainstem	0 ft

Landcover



Type	Area
Agriculture	0.29 mi²
Urban	0.02 mi²
Grassland	0.02 mi²
Forest	0.01 mi²

PRESTO Phosphorus Load Estimate

Avg. Annual Nonpoint Phosphorous Load (80% Confidence Interval)	673 (186 - 2,439) lbs
Number of Facilities (Individual Facility Information below)	1
Avg. Annual Point-source Phosphorous Load (2010 - 2012 total of all facilities)	2lbs
Most Likely Point : Nonpoint Phosphorous Ratio	0% : 100%
Low Estimate Point : Nonpoint Phosphorous Ratio (Adaptive Management)	0% : 100%

Exhibit B4

Adaptive Management Results

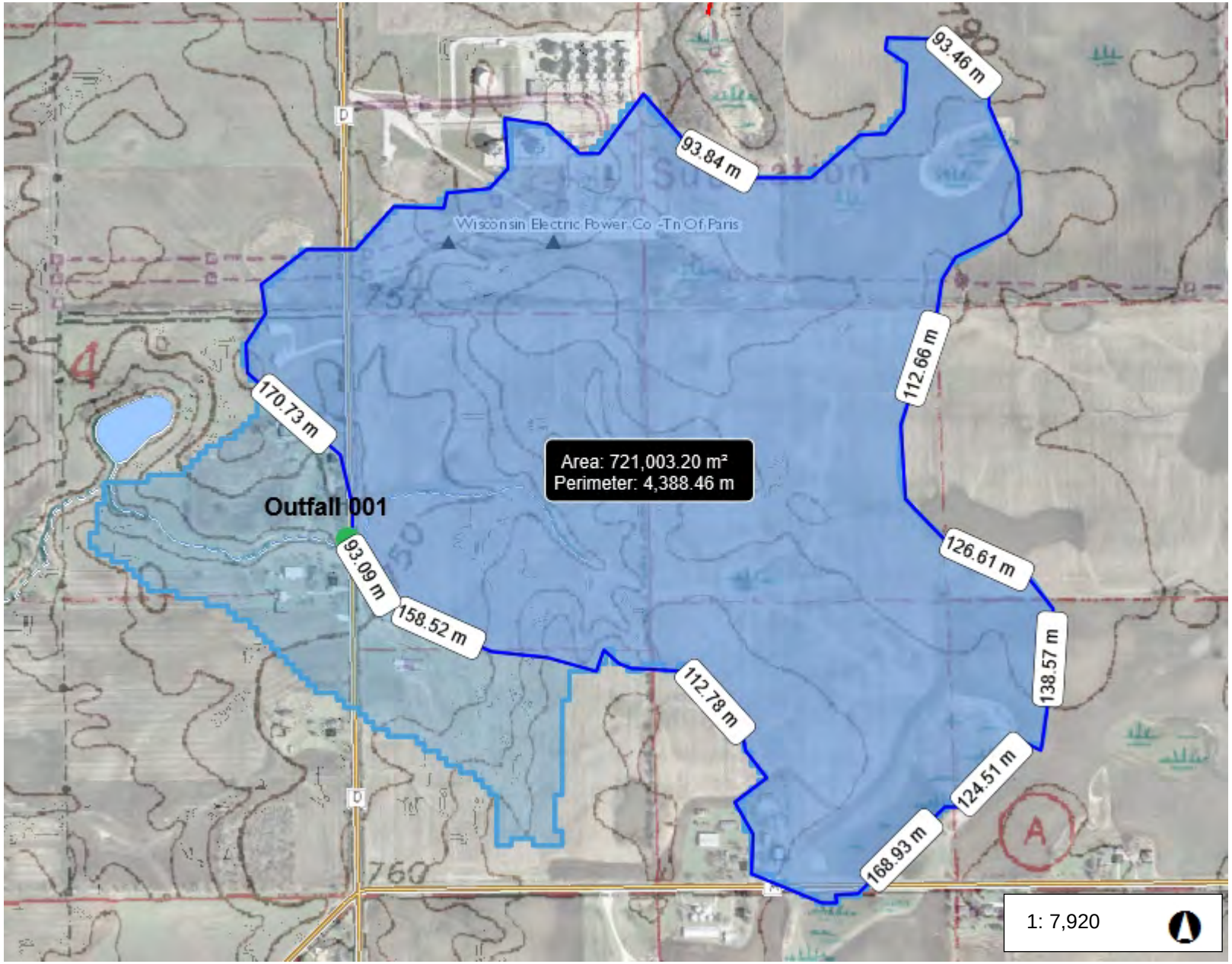
Facilities Discharging to the Headwaters Des Plaines River Watershed:

Facility Name	Permit #	Outfall #	Waste Type	Receiving Water	Avg. Phosphorus Load (lbs.) (2010 - 2012)
WISCONSIN ELECTRIC POWER CO -TN OF PARIS	0049131	001	Industrial	Unnamed	2

Watershed Analysis Limitations

- This analysis relies on pre-defined catchments from the Wisconsin Hydrography Data-Plus and may not delineate from the exact location required. When assessing phosphorus loads for specific facility in support of efforts such as adaptive management, care should be taken to ensure that additional downstream point sources do not exist. For adaptive management information related to specific facilities please reference the PRESTO website http://dnr.wi.gov/topic/surfacewater/presto.html
- Delineation of watersheds is based on a topographic assessment and therefore do not account for modified drainage networks such as stormwater sewer systems and ditched agriculture.
- If a watershed requires delineation from an exact location the user may use the desktop version of PRESTO that requires ESRI ArcGIS. The PRESTO tool and default datasets can be downloaded at http://dnr.wi.gov/topic/surfacewater/presto.html
- Data sources for this report originate from the WDNR's Wisconsin Hydrography Data-Plus value-added dataset and the point and non-point source loading information including in the WDNR's PRESTO model.
- If you have questions about the report generated from the PRESTO-Lite application please contact: DNRWATERQUALITYMODELING@wisconsin.gov

We Energies Upstream Acreage



Legend

- Surface Water Outfalls
- Impaired Rivers and Streams
- Impaired Lakes

0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

© Latitude Geographics Group Ltd.

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Notes

Exhibit B5

Lynn Morrison

From: Garbe, Amy M - DNR <Amy.Garbe@wisconsin.gov>
Sent: Monday, July 30, 2018 10:13 AM
To: Lynn Morrison
Cc: Thielen, Geisa B - DNR; Castronovo, Alison M; Hellman, Elizabeth A; Mark Pronley; Hartsook, Bryan D - DNR
Subject: RE: We Energies Paris WQT Point of Compliance

Hi Lynn,

Yes, you are correct with your assumptions that the point of compliance for We Energies is at that unnamed trib and not at the ditches. You would be calculating the ratio of We Energies load from Outfall 001 to the overload at that unnamed trib confluence with the ditch. For the downstream factor, the max value would be 0.8. I ran an initial PRESTO report (grabs a point a little downstream on the trib) and came up with an estimated nonpoint source load of 673 lbs/yr. Compared to the 20 lbs/yr for We Energies, that would calculated to a downstream trading factor of 0.1. That downstream trading factor would apply to any trade implemented downstream within the HUC 12.

Ideally, there would be more specific site specific information available at the actual confluence of the trib and the ditch, but I realize that might be difficult to gather. With the low discharge from We Energies and the surprisingly high nonpoint source loads, I feel comfortable still using a trade factor of 0.1. Especially, even at the low end of the interval, the ratio is still only ~10%.

Please let me know if you have any questions.

Thank you,

Amy Garbe

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Amy Garbe, P.E.
Phone: (262) 574-2135
Amy.Garbe@wisconsin.gov

From: Lynn Morrison [mailto:LMorrison@probstgroup.com]
Sent: Friday, July 27, 2018 1:57 PM
To: Garbe, Amy M - DNR <Amy.Garbe@wisconsin.gov>
Cc: Baerwald, Catherine M - DNR <Catherine.Baerwald@wisconsin.gov>; Thielen, Geisa B - DNR <Geisa.Thielen@wisconsin.gov>; Castronovo, Alison M <alison.castronovo@wecenergygroup.com>; Hellman, Elizabeth A <elizabeth.hellman@wecenergygroup.com>; Mark Pronley <mpronley@probstgroup.com>
Subject: We Energies Paris WQT Point of Compliance

Amy,

We're working on finalizing some agreements related to the potential water quality trade for the We Energies Paris Generating Station and I have a question related to their point of compliance that I'm hoping you can help with. The question is related to the Trade because the answer will dictate what their trade ratio ends up being.

The Sample Point Description for Outfall 001 in the current permit says "Outlet from the common site drainage ditch culvert to the Unnamed Tributary to the Des Plaines River". I attached a map which shows where Outfall 001 is sampled. Flow from facility then flows through an earthen ditch to a roadside ditch, neither of which have baseflow, to the Unnamed Tributary approximately 0.48 miles from where Outfall 001 is sampled.

Exhibit B6

Because there is very little land available upstream of We Energies on the Unnamed Tributary, we'd probably be looking at trading downstream if the facility were going to trade. This means that we have to calculate the ratio of We Energies' load to the overall load to the Unnamed Trib at the point of discharge. Because the 001 sampling location is further upstream than the point where their discharge meets the Unnamed Trib, the overall load at the 001 location is less than at the point where the discharge meets the Unnamed Trib.

Based on the Sample Point Description, I think their point of compliance with regard to the Trade should be the point where their discharge enters the Unnamed Tributary. Please confirm.

Feel free to give me a call if you have questions or would like to discuss.

Lynn Morrison, P.E. | Permitting Engineer
Direct: (262) 402-6077 | Cell: (608) 577-2196
Email: lmorrison@probstgroup.com

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17035 West Wisconsin Avenue, Suite 120 | Brookfield, WI 53005
Main: (262) 264-5665 | Website: www.probstgroup.com

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APPENDIX C

Existing Farming Practices Questionnaire

Field Summary Report

Grower :	**R&C Hawkins**
Farm :	**Ford, Bruce**

Field:	East
Year:	2017
Operation:	Fertilizing (Dry)
Product:	0-0-60
Operational Instance:	Fertilizing - 1

Dataset	Start Date	End Date	Area ac	Estimated Amount lb	Average Rate lb/ac	Minimum Rate lb/ac	Maximum Rate lb/ac	Working Time h	Average Productivity ac/h
Fert Pot	10/5/2017	10/5/2017	22.32	5,362.7	240.27	3.355	448.66	0.203	110.22
Totals	**10/5/2017**	**10/5/2017**	**22.32**	**5,362.7**	**240.27**	**3.355**	**448.66**	**0.203**	**110.22**
	Minimum	Maximum			Average	Minimum	Maximum		Average

Exhibit C2

Field Summary Report

Grower :	**R&C Hawkins**
Farm :	**Ford, Bruce**

Field:	East
Year:	2017
Operation:	Fertilizing (Dry)
Product:	11-52-0
Operational Instance:	Fertilizing - 1

Dataset	Start Date	End Date	Area ac	Estimated Amount lb	Average Rate lb/ac	Minimum Rate lb/ac	Maximum Rate lb/ac	Working Time h	Average Productivity ac/h
Fert Map	10/9/2017	10/9/2017	22.12	3,215.1	145.35	0.00	231.00	0.189	116.93
Totals	**10/9/2017**	**10/9/2017**	**22.12**	**3,215.1**	**145.35**	**0.00**	**231.00**	**0.189**	**116.93**
	Minimum	Maximum			Average	Minimum	Maximum		Average

Field Summary Report

Grower :	**R&C Hawkins**
Farm :	**Ford, Bruce**

Field:	East
Year:	2015
Operation:	Fertilizing (Dry)
Product:	0-0-60
Operational Instance:	Fertilizing - 1

Dataset	Start Date	End Date	Area ac	Estimated Amount lb	Average Rate lb/ac	Minimum Rate lb/ac	Maximum Rate lb/ac	Working Time h	Average Productivity ac/h
Fert Pot	10/14/2015	10/14/2015	29.53	13,101	443.67	5.085	552.42	0.324	91.17
Totals	**10/14/2015**	**10/14/2015**	**29.53**	**13,101**	**443.67**	**5.085**	**552.42**	**0.324**	**91.17**
	Minimum	Maximum			Average	Minimum	Maximum		Average

Field Summary Report

Grower :	**R&C Hawkins**
Farm :	**Ford, Bruce**

Field:	East
Year:	2015
Operation:	Fertilizing (Dry)
Product:	18-46-0 DAP
Operational Instance:	Fertilizing - 1

Dataset	Start Date	End Date	Area ac	Estimated Amount lb	Average Rate lb/ac	Minimum Rate lb/ac	Maximum Rate lb/ac	Working Time h	Average Productivity ac/h
Fert DAP	10/14/2015	10/14/2015	20.61	4,567.8	221.58	0.00	471.71	0.196	105.12
Totals	**10/14/2015**	**10/14/2015**	**20.61**	**4,567.8**	**221.58**	**0.00**	**471.71**	**0.196**	**105.12**
	Minimum	Maximum			Average	Minimum	Maximum		Average

Field Summary Report

Grower :	**R&C Hawkins**
Farm :	**Ford, Bruce**

Field:	west
Year:	2017
Operation:	Fertilizing (Dry)
Product:	0-0-60
Operational Instance:	Fertilizing - 1

Dataset	Start Date	End Date	Area ac	Estimated Amount lb	Average Rate lb/ac	Minimum Rate lb/ac	Maximum Rate lb/ac	Working Time h	Average Productivity ac/h
Fert Pot	10/5/2017	10/5/2017	9.356	2,260.5	241.61	0.00	306.44	0.092	101.14
Totals	**10/5/2017**	**10/5/2017**	**9.356**	**2,260.5**	**241.61**	**0.00**	**306.44**	**0.092**	**101.14**
	Minimum	Maximum			Average	Minimum	Maximum		Average

Field Summary Report

Grower :	**R&C Hawkins**
Farm :	**Ford, Bruce**

Field:	west
Year:	2017
Operation:	Fertilizing (Dry)
Product:	11-52-0
Operational Instance:	Fertilizing - 1

Dataset	Start Date	End Date	Area ac	Estimated Amount lb	Average Rate lb/ac	Minimum Rate lb/ac	Maximum Rate lb/ac	Working Time h	Average Productivity ac/h
Fert Map	10/9/2017	10/9/2017	9.506	1,383.2	145.50	0.00	194.30	0.084	113.32
Totals	**10/9/2017**	**10/9/2017**	**9.506**	**1,383.2**	**145.50**	**0.00**	**194.30**	**0.084**	**113.32**
	Minimum	Maximum			Average	Minimum	Maximum		Average

Field Summary Report

Grower :	**R&C Hawkins**
Farm :	**Ford, Bruce**

Field:	west
Year:	2015
Operation:	Fertilizing (Dry)
Product:	0-0-60
Operational Instance:	Fertilizing - 1

Dataset	Start Date	End Date	Area ac	Estimated Amount lb	Average Rate lb/ac	Minimum Rate lb/ac	Maximum Rate lb/ac	Working Time h	Average Productivity ac/h
Fert Pot	10/14/2015	10/14/2015	9.813	4,756.2	484.69	6.468	534.11	0.106	92.24
Totals	**10/14/2015**	**10/14/2015**	**9.813**	**4,756.2**	**484.69**	**6.468**	**534.11**	**0.106**	**92.24**
	Minimum	Maximum			Average	Minimum	Maximum		Average

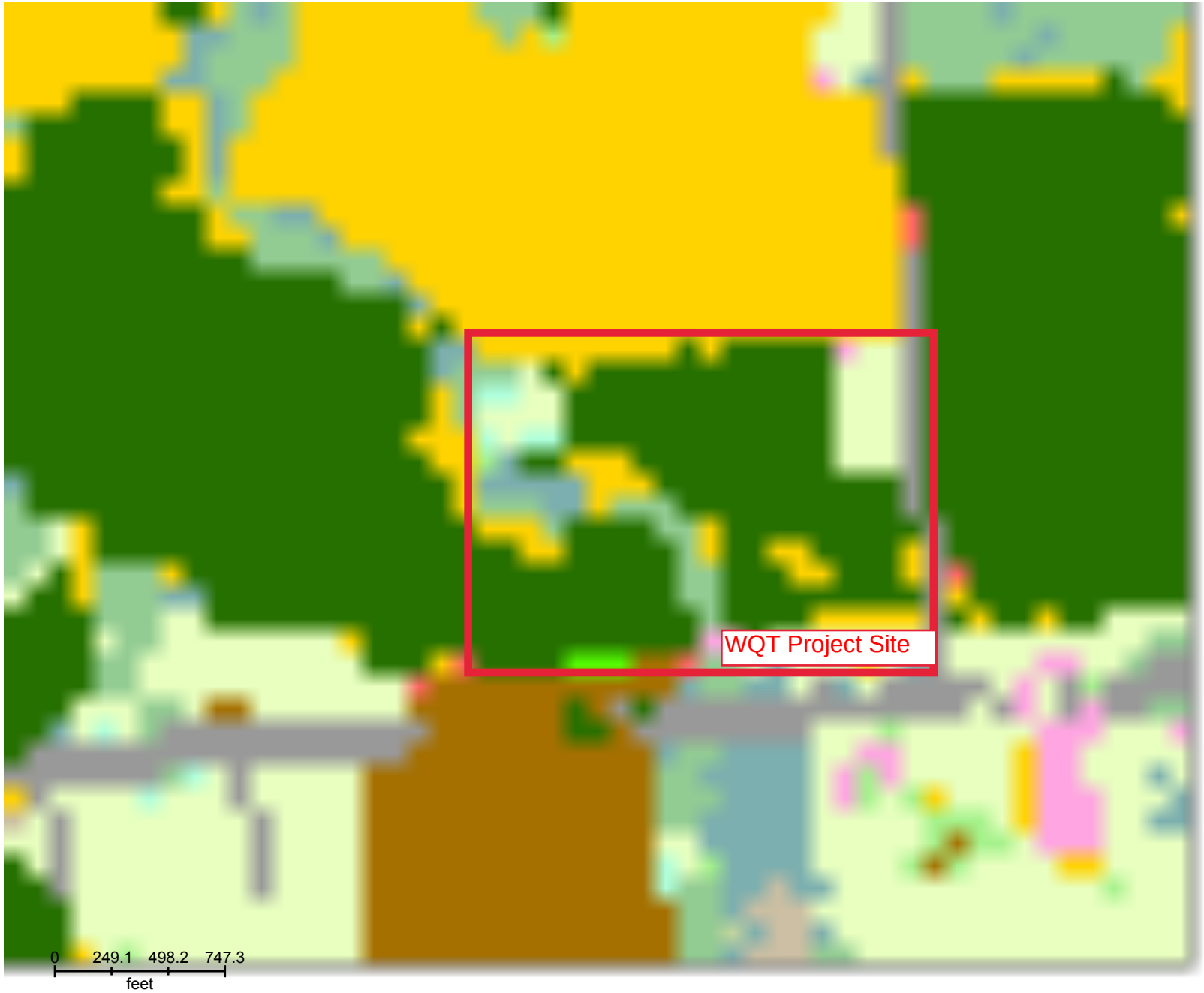
Field Summary Report

Grower :	**R&C Hawkins**
Farm :	**Ford, Bruce**

Field:	west
Year:	2015
Operation:	Fertilizing (Dry)
Product:	18-46-0 DAP
Operational Instance:	Fertilizing - 1

Dataset	Start Date	End Date	Area ac	Estimated Amount lb	Average Rate lb/ac	Minimum Rate lb/ac	Maximum Rate lb/ac	Working Time h	Average Productivity ac/h
Fert DAP	10/14/2015	10/14/2015	3.753	718.77	191.52	0.00	318.88	0.033	113.54
Totals	**10/14/2015**	**10/14/2015**	**3.753**	**718.77**	**191.52**	**0.00**	**318.88**	**0.033**	**113.54**
	Minimum	Maximum			Average	Minimum	Maximum		Average

CDL2015 Area of Interest



Land Cover Categories
(by decreasing acreage)

AGRICULTURE

- Soybeans
- Corn
- Grass/Pasture
- Winter Wheat
- Alfalfa
- Other Hay/Non Alfalfa
- Sod/Grass Seed
- Cabbage
- Peas
- Pumpkins

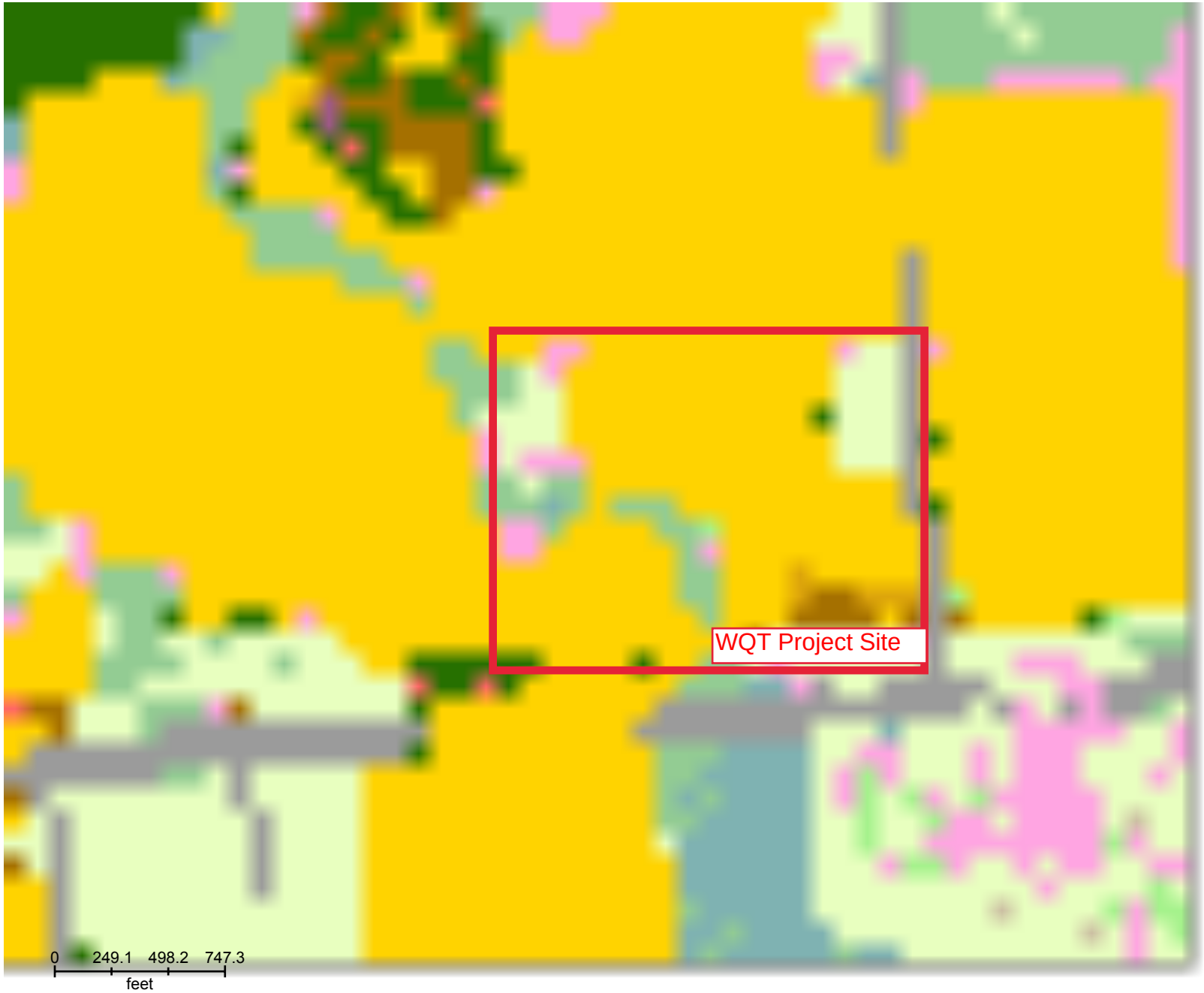
NON-AGRICULTURE*

- Deciduous Forest
- Developed/Open Space
- Herbaceous Wetlands
- Developed/Low Intensity
- Woody Wetlands
- Barren

Exhibit C3

* Only top 6 non-agriculturecategories are listed.

CDL2016 Area of Interest



Land Cover Categories
(by decreasing acreage)

AGRICULTURE

- Corn
- Grass/Pasture
- Alfalfa
- Soybeans
- Winter Wheat
- Other Hay/Non Alfalfa
- Sweet Corn
- Cabbage
- Oats

NON-AGRICULTURE*

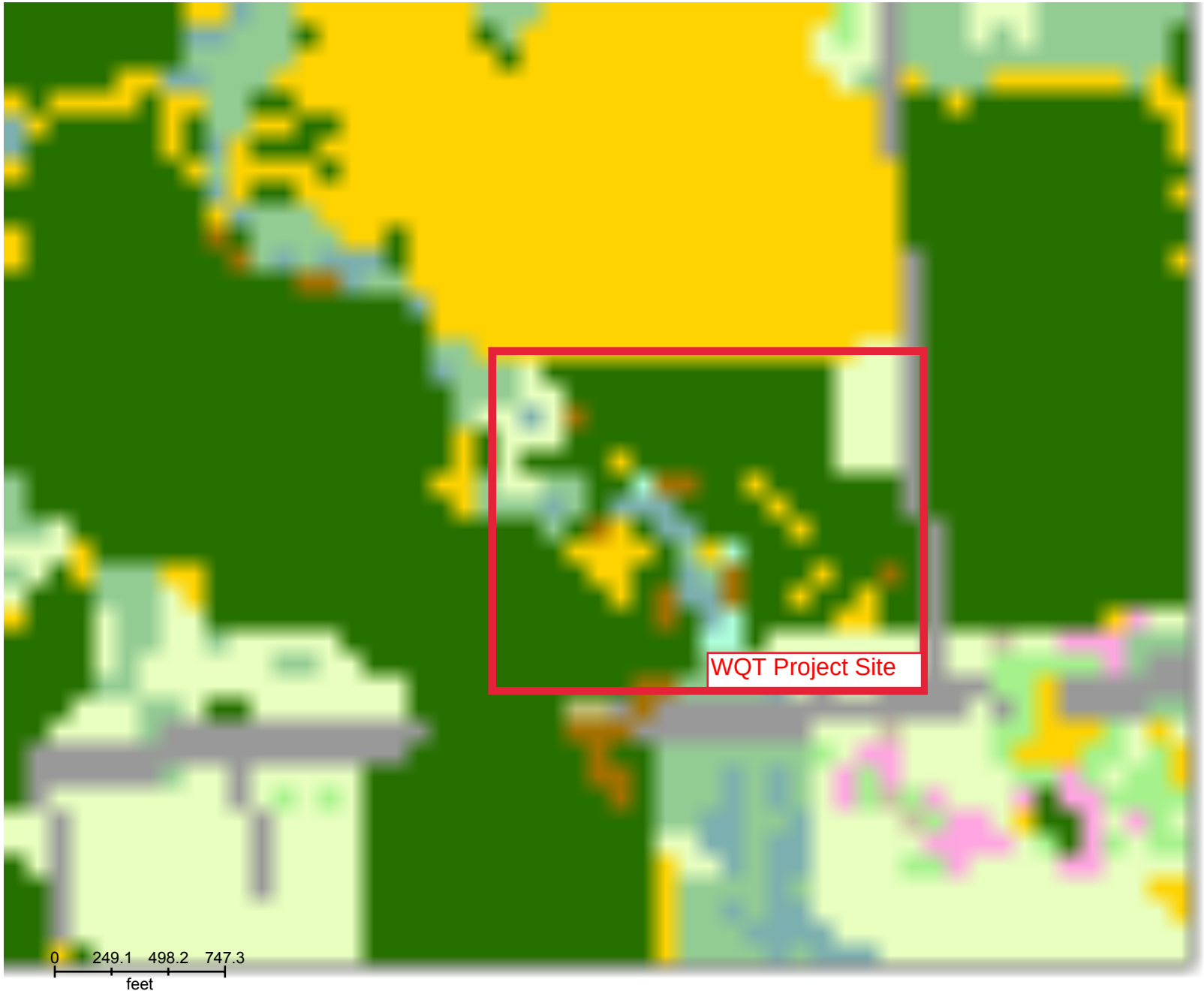
- Deciduous Forest
- Developed/Open Space
- Herbaceous Wetlands
- Developed/Low Intensity
- Woody Wetlands
- Developed/Medium Intensity

Exhibit C4

Produced by CropScape - http://nassgeodata.gmu.edu/CropScape

* Only top 6 non-agriculturecategories are listed.

CDL2017 Area of Interest



Land Cover Categories
(by decreasing acreage)

AGRICULTURE

- Soybeans
- Corn
- Grass/Pasture
- Other Hay/Non Alfalfa
- Alfalfa
- Winter Wheat
- Sod/Grass Seed
- Fallow/Idle Cropland

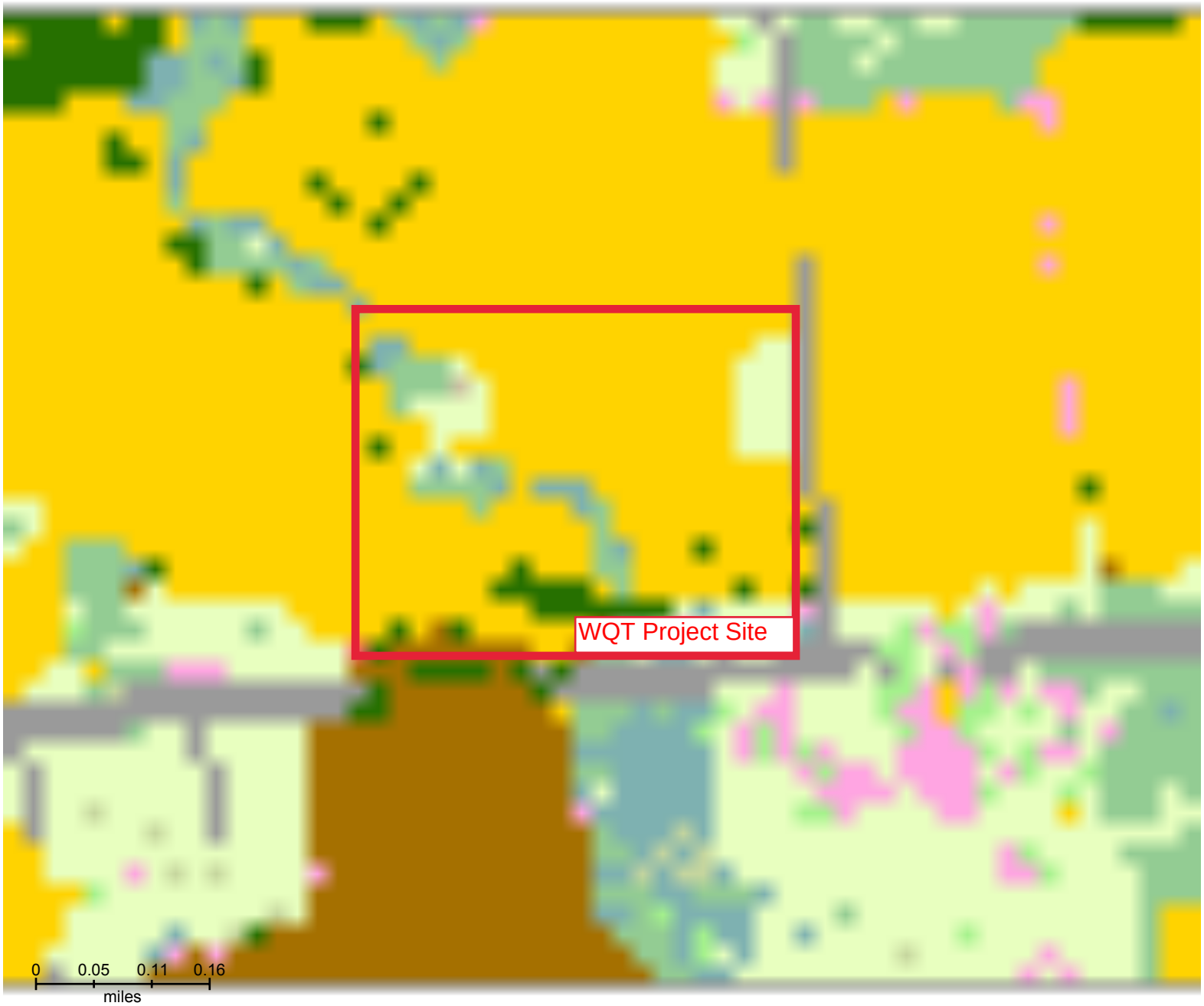
NON-AGRICULTURE*

- Deciduous Forest
- Developed/Open Space
- Herbaceous Wetlands
- Developed/Low Intensity
- Woody Wetlands
- Developed/Medium Intensity

Exhibit C5

* Only top 6 non-agriculturecategories are listed.

CDL2018 Area of Interest



Land Cover Categories

(by decreasing acreage)

AGRICULTURE

- Corn
- Grass/Pasture
- Winter Wheat
- Soybeans
- Alfalfa
- Other Hay/Non Alfalfa
- Cabbage

NON-AGRICULTURE*

- Deciduous Forest
- Developed/Open Space
- Herbaceous Wetlands
- Developed/Low Intensity
- Woody Wetlands
- Shrubland

Exhibit C6

Produced by CropScape - http://nassgeodata.gmu.edu/CropScape

* Only top 6 non-agriculturecategories are listed.

APPENDIX D

Soil Sampling Results

SAMPLI NG PLAN
SCALE: N.T.S.

The Probst Group
17035 W. WISCONSIN AVE.
SUITE 120
BROOKFIELD, WIS. 53005
TEL: (262) 264-5665
FAX: (262) 436-1359

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WE ENERGIES
PARIS, WISCONSIN
SOIL SAMPLING MAP

REVISIONS

NO.	DATE

DRAWN BY:	BTR
CHK'D BY:	
PROJ. ENG:	LM
ISSUE DATE:	3-18-19

PROJECT NUMBER:
5242.01

SHEET

PRELIMINARY

Exhibit D1

Samples Analyzed By:
Soil & Forage Analysis Lab
2611 Yellowstone Dr
Marshfield, WI 54449
phone: (715) 387-2523

SOIL TEST REPORT

COOPERATIVE EXTENSION
University of Wisconsin-Extension
University of Wisconsin-Madison
Department of Soil Science

Results also available on-line at http://not available
lab number: 5849 access code: 3m8xn

LAB #: 5849

County: Kenosha
Account No.: 558627
Date Received: 10/29/2018
Date Processed: 11/1/2018

Slope: 4%
Acres: 8.9
Plow Depth: 6"
Irrigated: No

Soil Name (Map Unit): Lawson variant (Lp)
loamy soil/high yield potential
Tiled: No

Field Name: A

Previous Crop: no crop

Probst Group - Lynn Morrison
17035 W Wisconsin Ave Suite 120
Brookfield, WI 53005

This Report is for:
Mark Pronley
17035 W Wisconsin Ave, Ste 120
Brookfield WI 53005

NUTRIENT RECOMMENDATIONS

Cropping Sequence	Yield Goal	Crop Nutrient Need N	Crop Nutrient Need P2O5	Crop Nutrient Need K2O	Fertilzer Credit Legume N	Fertilzer Credit Manure N	Fertilzer Credit P2O5	Fertilzer Credit K2O	Nutrients to Apply N	Nutrients to Apply P2O5	Nutrients to Apply K2O
	per acre	lbs/a			lbs/a	lbs/a			lbs/a		
Corn, grain	171-190 bu	see below	0	80	0	0	0	0	see below	0	80
Soybean, grain	56-65 bu	0	0	115	0	0	0	0	0	0	115
Alfalfa, seeding	1.5-2.5 ton	0	0	145	0	0	0	0	0	0	145
Alfalfa, established	5.6-6.5 ton	0	0	400	0	0	0	0	0	0	400

There is no lime recommendation.

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS

Previous Crop: High Yield Potential Soils	N:Corn Price Ratio ($/lb N:$/bu) 0.05 Rate[1]	0.05 Range	0.10 Rate[1]	0.10 Range	0.15 Rate[1]	0.15 Range	0.20 Rate[1]	0.20 Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	190	170-210	165	155-180	150	140-160	135	125-150
Soybean, Small grains[4]	140	125-160	120	105-130	105	95-115	90	80-105

[1] Rate is the N rate that provides the maximum return to N (MRTN). Range is the range of profitable N rates that provide an economic return to N within $1/a of the MRTN.
[2] These rates are for total N applied including N in starter fertilizer and N used in herbicide applications.
[3] Subtract N credits for forage legumes, leguminous vegetables, green manures and animal manures. This includes 1st, 2nd and 3rd year credits where applicable. Do not subtract N credits for leguminous vegetables on sand and loamy sand soils.
[4] Subtract N credits for animal manures and 2nd year forage legumes.

Guidelines for choosing an appropriate N application rate for corn (grain)

1) If there is more than 50% residue cover at planting, use the upper end of the range.
2) If 100% of the N will come from organic sources, use the top end of the range. In addition, up to 20 lb N/a in starter fertilizer may be applied in this situation.
3) For medium and fine textured soils with 10% or more organic matter, use the low end of the range; for medium and fine textured soils with less than 2% organic matter, use the high end of the range.
4) If there is a likelihood of residual N, then use the low end of the range or use the high end of the range and subtract preplant nitrate test (PPNT) credits.
5) For corn following small grains on medium and fine textured soils, the middle to low end of the range is most appropriate.

For more information on the new N application rate guidelines for corn see http://uwlab.soils.wisc.edu/pubs/MRTN/

ADDITIONAL INFORMATION

Recommended rates are the total amount of nutrients to apply (N-P-K), including starter fertilizer.

Starter fertilizer (e.g. 10+20+20 lbs N+P_2O_5+K_2O/a) is advisable for row crops on soils slow to warm in the spring.

Because of very high P levels, P_2O_5 applications from fertilizer or manure should be reduced and crops with a high P removal should be grown.

Year 1: If corn is harvested for silage instead of grain apply extra 90 lbs K_2O per acre to next crop.

If alfalfa will be maintained for more than three years, increase recommended K_2O by 20% each year.

N.R.=Not required for calculation of lime requirement when soil pH is 6.6 or higher.

SOIL TEST INTERPRETATION FOR CROPPING SEQUENCE

	Very Low	Low	Optimum	High	Very High	Excessive
Phosphorus	PPPP

Samples Analyzed By:
Soil & Forage Analysis Lab
2611 Yellowstone Dr
Marshfield, WI 54449
phone: (715) 387-2523

SOIL TEST REPORT

COOPERATIVE EXTENSION
University of Wisconsin-Extension
University of Wisconsin-Madison
Department of Soil Science

Results also available on-line at http://not available
lab number: 5849 access code: 3m8xn

LAB #: 5849

County	Account No.
Kenosha	558627

Date Received	Date Processed
10/29/2018	11/1/2018

Slope	Acres	Plow Depth	Irrigated
4%	6.6	6"	No

Soil Name (Map Unit): Warsaw (WeB)
loamy soil/high yield potential
Tiled: No
Field Name: B
Previous Crop: no crop

Probst Group - Lynn Morrison
17035 W Wisconsin Ave Suite 120
Brookfield, WI 53005

This Report is for:
Mark Pronley
17035 W Wisconsin Ave, Ste 120
Brookfield WI 53005

NUTRIENT RECOMMENDATIONS

Cropping Sequence	Yield Goal	Crop Nutrient Need N	Crop Nutrient Need P2O5	Crop Nutrient Need K2O	Fertilzer Credit Legume N	Fertilzer Credit Manure N	Fertilzer Credit P2O5	Fertilzer Credit K2O	Nutrients to Apply N	Nutrients to Apply P2O5	Nutrients to Apply K2O
	per acre	lbs/a			lbs/a	lbs/a			lbs/a		
Corn, grain	171-190 bu	see below	0	80	0	0	0	0	see below	0	80
Soybean, grain	56-65 bu	0	0	115	0	0	0	0	0	0	115
Alfalfa, seeding	1.5-2.5 ton	0	0	145	0	0	0	0	0	0	145
Alfalfa, established	5.6-6.5 ton	0	0	400	0	0	0	0	0	0	400

There is no lime recommendation.

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS

Previous Crop: High Yield Potential Soils	N:Corn Price Ratio ($/lb N:$/bu) 0.05 Rate[1]	0.05 Range	0.10 Rate[1]	0.10 Range	0.15 Rate[1]	0.15 Range	0.20 Rate[1]	0.20 Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	190	170-210	165	155-180	150	140-160	135	125-150
Soybean, Small grains[4]	140	125-160	120	105-130	105	95-115	90	80-105

[1] Rate is the N rate that provides the maximum return to N (MRTN). Range is the range of profitable N rates that provide an economic return to N within $1/a of the MRTN.
[2] These rates are for total N applied including N in starter fertilizer and N used in herbicide applications.
[3] Subtract N credits for forage legumes, leguminous vegetables, green manures and animal manures. This includes 1st, 2nd and 3rd year credits where applicable. Do not subtract N credits for leguminous vegetables on sand and loamy sand soils.
[4] Subtract N credits for animal manures and 2nd year forage legumes.

Guidelines for choosing an appropriate N application rate for corn (grain)

1) If there is more than 50% residue cover at planting, use the upper end of the range.
2) If 100% of the N will come from organic sources, use the top end of the range. In addition, up to 20 lb N/a in starter fertilizer may be applied in this situation.
3) For medium and fine textured soils with 10% or more organic matter, use the low end of the range; for medium and fine textured soils with less than 2% organic matter, use the high end of the range.
4) If there is a likelihood of residual N, then use the low end of the range or use the high end of the range and subtract preplant nitrate test (PPNT) credits.
5) For corn following small grains on medium and fine textured soils, the middle to low end of the range is most appropriate.

For more information on the new N application rate guidelines for corn see http://uwlab.soils.wisc.edu/pubs/MRTN/

ADDITIONAL INFORMATION

Recommended rates are the total amount of nutrients to apply (N-P-K), including starter fertilizer.

Starter fertilizer (e.g. 10+20+20 lbs N+P_2O_5+K_2O/a) is advisable for row crops on soils slow to warm in the spring.

Year 1: If corn is harvested for silage instead of grain apply extra 90 lbs K_2O per acre to next crop.

If alfalfa will be maintained for more than three years, increase recommended K_2O by 20% each year.

N.R.=Not required for calculation of lime requirement when soil pH is 6.6 or higher.

SOIL TEST INTERPRETATION FOR CROPPING SEQUENCE

	Very Low	Low	Optimum	High	Very High	Excessive
Phosphorus	PPPP

Samples Analyzed By:
Soil & Forage Analysis Lab
2611 Yellowstone Dr
Marshfield, WI 54449
phone: (715) 387-2523

SOIL TEST REPORT

COOPERATIVE EXTENSION
University of Wisconsin-Extension
University of Wisconsin-Madison
Department of Soil Science

Results also available on-line at http://not available
lab number: 6211 access code: gh35w

LAB #: 6211

County	Account No.	Date Received	Date Processed
Kenosha	558627	11/14/2018	11/21/2018

Slope	Acres	Plow Depth	Irrigated
4%	22	6"	No

Soil Name (Map Unit): Warsaw (WeB) — loamy soil/high yield potential
Tiled: No
Field Name: C
Previous Crop: no crop

Probst Group - Lynn Morrison
17035 W Wisconsin Ave Suite 120
Brookfield, WI 53005

This Report is for:
Lynn Morrison
17035 W Wisconsin Ave, Ste 120
Brookfield WI 53005

NUTRIENT RECOMMENDATIONS

Cropping Sequence	Yield Goal	Crop Nutrient Need N	Crop Nutrient Need P2O5	Crop Nutrient Need K2O	Fertilzer Credit Legume N	Fertilzer Credit Manure N	Fertilzer Credit P2O5	Fertilzer Credit K2O	Nutrients to Apply N	Nutrients to Apply P2O5	Nutrients to Apply K2O
	per acre	lbs/a			lbs/a	lbs/a			lbs/a		
Corn, grain	171-190 bu	see below	70	95	0	0	0	0	see below	70	95
Soybean, grain	56-65 bu	0	50	130	0	0	0	0	0	50	130
Alfalfa, seeding	1.5-2.5 ton	0	25	160	0	0	0	0	0	25	160
Alfalfa, established	5.6-6.5 ton	0	80	415	0	0	0	0	0	80	415

There is no lime recommendation. Please see Additional Information below.

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS

Previous Crop: High Yield Potential Soils	N:Corn Price Ratio ($/lb N:$/bu) 0.05 Rate[1]	0.05 Range	0.10 Rate[1]	0.10 Range	0.15 Rate[1]	0.15 Range	0.20 Rate[1]	0.20 Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	190	170-210	165	155-180	150	140-160	135	125-150
Soybean, Small grains[4]	140	125-160	120	105-130	105	95-115	90	80-105

[1] Rate is the N rate that provides the maximum return to N (MRTN). Range is the range of profitable N rates that provide an economic return to N within $1/a of the MRTN.
[2] These rates are for total N applied including N in starter fertilizer and N used in herbicide applications.
[3] Subtract N credits for forage legumes, leguminous vegetables, green manures and animal manures. This includes 1st, 2nd and 3rd year credits where applicable. Do not subtract N credits for leguminous vegetables on sand and loamy sand soils.
[4] Subtract N credits for animal manures and 2nd year forage legumes.

Guidelines for choosing an appropriate N application rate for corn (grain)

1) If there is more than 50% residue cover at planting, use the upper end of the range.
2) If 100% of the N will come from organic sources, use the top end of the range. In addition, up to 20 lb N/a in starter fertilizer may be applied in this situation.
3) For medium and fine textured soils with 10% or more organic matter, use the low end of the range; for medium and fine textured soils with less than 2% organic matter, use the high end of the range.
4) If there is a likelihood of residual N, then use the low end of the range or use the high end of the range and subtract preplant nitrate test (PPNT) credits.
5) For corn following small grains on medium and fine textured soils, the middle to low end of the range is most appropriate.

For more information on the new N application rate guidelines for corn see http://uwlab.soils.wisc.edu/pubs/MRTN/

ADDITIONAL INFORMATION

Parts of this field may benefit from liming. Please see the unadjusted lime requirements in the Laboratory Analysis section below.

Recommended rates are the total amount of nutrients to apply (N-P-K), including starter fertilizer.

Starter fertilizer (e.g. 10+20+20 lbs N+P_2O_5+K_2O/a) is advisable for row crops on soils slow to warm in the spring.

Year 1: If corn is harvested for silage instead of grain add extra 30 lbs P_2O_5 per acre and 90 lbs K_2O per acre to next crop.

If alfalfa will be maintained for more than three years, increase recommended K_2O by 20% each year.

N.R.=Not required for calculation of lime requirement when soil pH is 6.6 or higher.

SOIL TEST INTERPRETATION FOR CROPPING SEQUENCE

	Very Low	Low	Optimum	High	Very High	Excessive
Phosphorus	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP					
Potassium	KKKKKKKKKK					
Rotation pH	XXXX

Attachment D

Soil Sample Results Summary

Lab ID	Lab Sample ID	Sample Date	Farm Name	Field Name	Size	Plow Depth	Soil Sample ID	pH [s.u.]	O.M. [%]	P [ppm]	K [ppm]
Soil & Forage Analysis Lab	5849	10/29/2018	Ford	A	8.9	6	1	6.6	5.7	59	90
Soil & Forage Analysis Lab	5849	10/29/2018	Ford	A	8.9	6	2	7.3	5.2	45	107
Soil & Forage Analysis Lab	5849	10/29/2018	Ford	Ap1, Ap2, Aw			Avg	7.0	5.5	52	99
Soil & Forage Analysis Lab	5849	10/29/2018	Ford	B	6.6	6	1	6.9	5.2	50	85
Soil & Forage Analysis Lab	5849	10/29/2018	Ford	B	6.6	6	2	6.6	4.3	38	112
Soil & Forage Analysis Lab	5849	10/29/2018	Ford	Bp, Bw1, Bw2			Avg	6.8	4.8	44	99
Soil & Forage Analysis Lab	6211	11/14/2018	Ford	C	22	6	1	6	3.6	26	90
Soil & Forage Analysis Lab	6211	11/14/2018	Ford	C	22	6	2	6.6	3.7	41	100
Soil & Forage Analysis Lab	6211	11/14/2018	Ford	Cp2			Avg	6.3	3.7	34	95
Soil & Forage Analysis Lab	6211	11/14/2018	Ford	C	22	6	3	6.6	4.9	53	149
Soil & Forage Analysis Lab	6211	11/14/2018	Ford	C	22	6	4	6.8	5.2	12	41
Soil & Forage Analysis Lab	6211	11/14/2018	Ford	C	22	6	5	6.7	4.5	19	74
Soil & Forage Analysis Lab	6211	11/14/2018	Ford	Cp1, Cw			Avg	6.7	4.9	28	88

Note:

O.M. = Organic Matter

P = Phosphorus

K = Potassium

Exhibit D3

N
W E
S

SAMPLI NG PLAN
SCALE: N.T.S.

The Probst Group
17035 W. WISCONSIN AVE.
SUITE 120
BROOKFIELD, WIS. 53005
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WE ENERGIES
PARIS, WISCONSIN
SOIL SAMPLING MAP

REVISIONS

NO.	DATE

DRAWN BY:	BTR
CHK'D BY:	
PROJ. ENG:	LM
ISSUE DATE:	3-18-19

PROJECT NUMBER:
5242.01

SHEET

PRELIMINARY

Exhibit D4

APPENDIX E

SnapPlus Modeling Reports (Current)

NM1: Narrative and Crops Report

Starting Year	**2015**
Reported For	**Ford Property**
Printed	**2019-07-03**
Plan Completion/Update Date:	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Current Rev 1 06182019 Dt.snapDb	

Prepared for:
Ford Property
attn:Ford Property

Farm has 9 fields totalling 37.6 acres
Farm Narrative: None

Annual Farm Notes:

No Annual Farm Notes

Spreader Calibration Methods: No spreader calibration rate documentation has been selected.

Narrative and Crops:

Field Name	Acres	2015	2016	2017	2018	2019	2020	2021	2022
Ap1	1	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre
Ap2	4.1	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre
Aw	4.1	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre

Field Name	Acres	2015	2016	2017	2018	2019	2020	2021	2022
Bp	6.5	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre
Bw1	1	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre
Bw2	0.2	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre
Cp1	2.5	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre
Cp2	10.7	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre
Cw	7.5	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre

Summary by Crop:

NOTE: Yields calculated using the midpoint of the SnapPlus yield goal range for each crop.

Crops Grouped By Category		2015	2016	2017	2018	2019	2020	2021	2022
Corn grain, 18 inch rows	Acres bu		38 6,859		38 6,859		38 6,859		38 6,859
Soybeans 15-20 inch row	Acres bu	38 2,299		38 1,919		38 2,299		38 1,919	

FM6: Soil Test Report

Reported For	Ford Property
Printed	2019-07-03
Plan Completion/Update Date	2018-11-07
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

			Predominant					Samples				in ppm			
Field Name	Subfarm	Acres	Soil Map Symbol	Soil Name	Soil Test Date	Soil Test Lab	Lab Number	Rec. #	Actual #	pH	OM%	P	K	S	CEC
Ap1		1	EtB	ELLIOTT	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	7.0	5.5	52	99	0	0
Ap2		4.1	Lp	LAWSON VARIANT	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	7.0	5.5	52	99	0	0
Aw		4.1	Lp	LAWSON VARIANT	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	7.0	5.5	52	99	0	0
Bp		6.5	WeB	WARSAW	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	6.8	4.8	44	99	0	0
Bw1		1	Dt	DRUMMER	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	6.8	4.8	44	99	0	0
Bw2		0.2	Dt	DRUMMER	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	6.8	4.8	44	99	0	0
Cp1		2.5	WeB	WARSAW	2018-11-14	Soil & Forage Analysis Lab	6211	**1**	**1**	6.7	4.9	28	88	0	0
Cp2		10.7	WeB	WARSAW	2018-11-14	Soil & Forage Analysis Lab	6211	**2**	**1**	6.3	3.7	34	95	0	0
Cw		7.5	Dt	DRUMMER	2018-11-14	Soil & Forage Analysis Lab	6211	**2**	**1**	6.7	4.9	28	88	0	0

Crop Year Soil Test Needed

Field Name	Soil Test Date	2018	2019	2020	2021	2022	2023	2024
Ap1	2018-10-29						X	
Ap2	2018-10-29						X	
Aw	2018-10-29						X	
Bp	2018-10-29						X	
Bw1	2018-10-29						X	
Bw2	2018-10-29						X	
Cp1	2018-11-14						X	
Cp2	2018-11-14						X	
Cw	2018-11-14						X	

FM2: Application Summary Report

Starting Year	**2015**
Reported For	**Ford Property**
Printed	**2019-07-03**
Plan Completion/Update Date:	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Annual Manure Production And Use By Source

Total Value = $ Value of all nutrients, incorporated including S.

Source	

Application Results Reported For Farm All

Annual Pounds Of Available N, P2O5 And K2O Applied From Manure and Fertilizer.

		2015	2016	2017	2018	2019	2020	2021
Produced from Manure (lb)	Ninj	0	0	0	0	0	0	0
	P2O5	0	0	0	0	0	0	0
	K2O	0	0	0	0	0	0	0
Total Available Manure Nutrients Applied (lb)	Ninj	0	0	0	0	0	0	0
	P2O5	0	0	0	0	0	0	0
	K2O	0	0	0	0	0	0	0
Total Fertilizer Nutrients Applied (lb)	N	1,449	0	602	0	1,449	0	602
	P2O5	3,706	0	2,858	0	3,706	0	2,858
	K2O	10,420	0	5,527	0	10,420	0	5,527
Total Crop Removal (lb)	P2O5	1,880	2,632	1,504	2,632	1,880	2,632	1,504
	K2O	3,196	1,880	2,632	1,880	3,196	1,880	2,632
Nutrient Balance (Applied - Crop removal, lb)	P2O5	1,826	-2,632	1,354	-2,632	1,826	-2,632	1,354
	K2O	7,224	-1,880	2,895	-1,880	7,224	-1,880	2,895

Annual Pounds Of Available N, P2O5 And K2O Applied From Manure and Fertilizer.		
		2022
Produced from Manure (lb)	Ninj P2O5 K2O	0 0 0
Total Available Manure Nutrients Applied (lb)	Ninj P2O5 K2O	0 0 0
Total Fertilizer Nutrients Applied (lb)	N P2O5 K2O	0 0 0
Total Crop Removal (lb)	P2O5 K2O	2,632 1,880
Nutrient Balance (Applied - Crop removal, lb)	P2O5 K2O	-2,632 -1,880

NM3: Field Data and 590 Assessment Plan

Reported For	Ford Property
Printed	2019-07-03
Plan Completion/Update Date	2018-11-07
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field Data: 38 Total Acres Reported.

Field Name	SubFarm	FSA Trct	FSA Fld	Acres	County	Critical Soil Series & Symbol	F. Slp %	F.Slp Len ft	Below Field Slope To Water %	Dist.To Water ft	Contour/ Filters	Irrig	Tiled	Rotation	Tillage	Report Period	Field "T" t/ac	Rot Avg Soil Loss t/ac	SCI	Rot Avg PI	Soil Test P ppm	Rot P2O5 Bal lb/ac	P2O5 Bal Target lb/ac
Ap1				1	Kenosha	MARKHAM MeC2	9	150	2.1 - 6	0 - 300	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**5**	**6.6**	**-0.2**	**11**	52	-66	0
Ap2				4.1	Kenosha	LAWSON VARIANT Lp	1	250	0 - 2	0 - 300	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**5**	**1**	**0.3**	**2**	52	-66	0
Aw				4.1	Kenosha	LAWSON VARIANT Lp	1	250	0 - 2	0 - 300	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**5**	**1**	**0.3**	**2**	52	-66	0
Bp				6.5	Kenosha	WARSAW WeB	4	200	2.1 - 6	0 - 300	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**3**	**1.9**	**0.2**	**3**	44	-52	-
Bw1				1	Kenosha	DRUMMER Dt	1	250	6.1 - 12	0 - 300	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**4**	**0.9**	**0.3**	**2**	44	-52	-
Bw2				0.2	Kenosha	DRUMMER Dt	1	250	2.1 - 6	0 - 300	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**4**	**0.9**	**0.3**	**2**	44	-52	-

Field Name	SubFarm	FSA Trct	FSA Fld	Acres	County	Critical Soil Series & Symbol	F. Slp %	F.Slp Len ft	Below Field Slope To Water %	Dist.To Water ft	Contour/ Filters	Irrig	Tiled	Rotation	Tillage	Report Period	Field "T" t/ac	Rot Avg Soil Loss t/ac	SCI	Rot Avg PI	Soil Test P ppm	Rot P2O5 Bal lb/ac	P2O5 Bal Target lb/ac
Cp1				2.5	Kenosha	WARSAW WeB	4	200	2.1 - 6	0 - 300	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**3**	**1.9**	**0.2**	**3**	28	-52	-
Cp2				10.7	Kenosha	WARSAW WeB	4	200	0 - 2	301 - 1000	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**3**	**1.9**	**0.2**	**2**	34	-52	-
Cw				7.5	Kenosha	DRUMMER Dt	1	250	0 - 2	0 - 300	No / No	No	No	Sg15-Cg18-Sg15-Cg18	FCD-FCD-FCD-FCD	2047-2050	**4**	**0.9**	**0.3**	**2**	28	-52	-

Crop Abbreviations

Abbreviation	Crop
Cg18	Corn grain, 18 inch rows
Sg15	Soybeans 15-20 inch row

Tillage Abbreviations

Abbreviation	Tillage
FCD	Fall Chisel, disked

FM9: Nutrient Management Report

Crop Year	**2016**
Reported For	**Ford Property**
Printed	**2019-07-03**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2015 Crop	2016 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Ap2	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Aw	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Bp	6.5	WARSAW WeB	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Bw1	1	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0
Bw2	0.2	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0
Cp1	2.5	WARSAW WeB	28	88	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Cp2	10.7	WARSAW WeB W	34	95	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Cw	7.5	DRUMMER Dt W	28	88	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2017**
Reported For	**Ford Property**
Printed	**2019-07-03**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2016 Crop	2017 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	0	16	76	147	16	76	147
Ap2	4.1	LAWSON VARIANT Lp	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	0	16	76	147	16	76	147
Aw	4.1	LAWSON VARIANT Lp	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	0	16	76	147	16	76	147
Bp	6.5	WARSAW WeB	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Bw1	1	DRUMMER Dt W	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Bw2	0.2	DRUMMER Dt W	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Cp1	2.5	WARSAW WeB	28	88	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Cp2	10.7	WARSAW WeB W	34	95	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Cw	7.5	DRUMMER Dt W	28	88	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.

C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2018**
Reported For	**Ford Property**
Printed	**2019-07-03**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2017 Crop	2018 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Ap2	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Aw	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Bp	6.5	WARSAW WeB	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Bw1	1	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0
Bw2	0.2	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0
Cp1	2.5	WARSAW WeB	28	88	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Cp2	10.7	WARSAW WeB W	34	95	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Cw	7.5	DRUMMER Dt W	28	88	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2019**
Reported For	**Ford Property**
Printed	**2019-07-03**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2018 Crop	2019 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	47	34	88	296	34	88	249
Ap2	4.1	LAWSON VARIANT Lp	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	47	34	88	296	34	88	249
Aw	4.1	LAWSON VARIANT Lp	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	47	34	88	296	34	88	249
Bp	6.5	WARSAW WeB	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	72	40	102	271	40	102	199
Bw1	1	DRUMMER Dt W	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	72	40	102	271	40	102	199
Bw2	0.2	DRUMMER Dt W	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	72	40	102	271	40	102	199
Cp1	2.5	WARSAW WeB	28	88	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	72	40	102	271	40	102	199
Cp2	10.7	WARSAW WeB W	34	95	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	72	40	102	271	40	102	199
Cw	7.5	DRUMMER Dt W	28	88	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Fall Chisel, disked	0	0	72	40	102	271	40	102	199

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.

C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

WQ1: P Trade Report

Reported For	Ford Property
Printed	2019-07-03
Plan Completion/Update Date	2018-11-07
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Current Rev 1 06182019 Dt.snapDb	

Prepared for:
Ford Property
attn:Ford Property

The P Trade Report estimates the annual pounds of phosphorus (P) in surface runoff from cropland entering surface waters. These P loss calculations are based on a field's soil test P concentration, crops, tillage, nutrient management practices and estimates of average runoff and sheet and rill erosion for the predominant soil type. Losses from concentrated flow channel or gully erosion with a field are not included in these calculations. Field runoff losses are calculated for each year as **PTP** (lb P/field/yr). Fields are only included if there are at least 2 years of crops before the selected start year. Before using this report as part of a Water Quality Trade activity, phosphorus losses (PTP) must be converted into 'P credits' according to DNR guidance.

For more information go to **http://dnr.wi.gov/** and type keyword: **Water Quality Trading**

Questions? Please contact DNRphosphorus@wisconsin.gov

This report was developed for Wisconsin DNR Water Quality Trading and Adaptive Management purposes and cannot be used to demonstrate compliance with NR 151 or NRCS 590 NM plan requirements.

P Trade Report				PTP										
Field Name	Soil Series	Soil Symbol	Acres	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Ap1	ELLIOTT	EtB	1	4	6	3	6	3	6	3	5	3	6	3
Ap2	LAWSON VARIANT	Lp	4	9	14	9	13	9	14	9	13	9	13	9
Aw	LAWSON VARIANT	Lp	4	9	14	9	13	9	14	9	13	9	13	9
Bp	WARSAW	WeB	7	15	25	16	24	15	25	16	23	15	25	16
Bw1	DRUMMER	Dt	1	2	3	2	2	2	2	2	2	2	2	2
Bw2	DRUMMER	Dt	0	0	1	0	0	0	0	0	0	0	0	0

PTP																			
2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
5	3	6	3	5	3	6	3	5	3	6	3	5	3	5	3	5	3	5	3
12	9	13	9	12	8	13	8	12	8	13	8	12	8	12	8	11	8	12	8
12	9	13	9	12	8	13	8	12	8	13	8	12	8	12	8	11	8	12	8
23	15	25	15	23	15	24	15	23	15	24	15	22	14	24	15	22	14	23	15
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PTP		
2048	2049	2050
5	3	5
11	8	12
11	8	12
22	14	23
2	2	2
0	0	0

P Trade Report				PTP										
Field Name	Soil Series	Soil Symbol	Acres	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Cp1	WARSAW	WeB	3	6	9	6	9	6	9	6	9	6	9	6
Cp2	WARSAW	WeB	11	20	31	21	29	20	30	21	28	19	30	21
Cw	DRUMMER	Dt	8	12	18	13	16	12	17	13	16	12	17	13
Total			**38**	**77**	**120**	**80**	**111**	**75**	**118**	**79**	**110**	**75**	**116**	**78**

PTP																			
2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
9	5	9	6	8	5	9	6	8	5	9	6	8	5	9	6	8	5	9	6
28	19	29	20	27	19	29	20	27	19	29	20	27	19	28	20	26	18	28	20
16	12	17	13	15	11	16	12	15	11	16	12	15	11	16	12	14	11	15	11
108	**74**	**114**	**77**	**106**	**73**	**113**	**76**	**105**	**72**	**111**	**75**	**103**	**71**	**109**	**74**	**101**	**69**	**107**	**72**

PTP		
2048	2049	2050
8	5	9
26	18	27
14	10	15
100	**68**	**106**

APPENDIX F

SnapPlus Modeling Reports (Converted)

NM1: Narrative and Crops Report

Starting Year	**2015**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date:	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

Farm has 9 fields totalling 37.6 acres
Farm Narrative: None

Annual Farm Notes:

No Annual Farm Notes

Spreader Calibration Methods: No spreader calibration rate documentation has been selected.

Narrative and Crops:

Field Name	Acres	2015	2016	2017	2018	2019	2020	2021	2022
Ap1	1	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre
Ap2	4.1	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre
Aw	4.1	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Reed canary grass None 4-7 ton/acre	Reed canary grass None 4-7 ton/acre	Reed canary grass None 4-7 ton/acre

Field Name	Acres	2015	2016	2017	2018	2019	2020	2021	2022
Bp	6.5	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre
Bw1	1	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Reed canary grass None 4-7 ton/acre	Reed canary grass None 4-7 ton/acre	Reed canary grass None 4-7 ton/acre
Bw2	0.2	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Reed canary grass None 4-7 ton/acre	Reed canary grass None 4-7 ton/acre	Reed canary grass None 4-7 ton/acre
Cp1	2.5	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre
Cp2	10.7	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre
Cw	7.5	Soybeans 15-20 inch row Fall Chisel, disked 56-65 bu/acre	Corn grain, 18 inch rows Fall Chisel, disked 171-190 bu/acre	Soybeans 15-20 inch row Fall Chisel, disked 46-55 bu/acre	Corn grain, 18 inch rows No Till 171-190 bu/acre	Soybeans 15-20 inch row Spring Chisel, disked 56-65 bu/acre	Reed canary grass None 4-7 ton/acre	Reed canary grass None 4-7 ton/acre	Reed canary grass None 4-7 ton/acre

Summary by Crop:

NOTE: Yields calculated using the midpoint of the SnapPlus yield goal range for each crop.

Crops Grouped By Category		2015	2016	2017	2018	2019	2020	2021	2022
Corn grain, 18 inch rows	Acres bu		38 6,859		38 6,859				

Crops Grouped By Category		2015	2016	2017	2018	2019	2020	2021	2022
Grasslands, permanent, not harvested	Acres none						25 0	25 0	25 0
Soybeans 15-20 inch row	Acres bu	38 2,299		38 1,919		38 2,299			
Reed canary grass	Acres ton						13 72	13 72	13 72

FM6: Soil Test Report

Reported For	Ford Property
Printed	2019-07-11
Plan Completion/Update Date	2018-11-07
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

			Predominant					Samples				in ppm			
Field Name	Subfarm	Acres	Soil Map Symbol	Soil Name	Soil Test Date	Soil Test Lab	Lab Number	Rec. #	Actual #	pH	OM%	P	K	S	CEC
Ap1		1	EtB	ELLIOTT	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	7.0	5.5	52	99	0	0
Ap2		4.1	Lp	LAWSON VARIANT	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	7.0	5.5	52	99	0	0
Aw		4.1	Lp	LAWSON VARIANT	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	7.0	5.5	52	99	0	0
Bp		6.5	WeB	WARSAW	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	6.8	4.8	44	99	0	0
Bw1		1	Dt	DRUMMER	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	6.8	4.8	44	99	0	0
Bw2		0.2	Dt	DRUMMER	2018-10-29	Soil & Forage Analysis Lab	5849	**1**	**1**	6.8	4.8	44	99	0	0
Cp1		2.5	WeB	WARSAW	2018-11-14	Soil & Forage Analysis Lab	6211	**1**	**1**	6.7	4.9	28	88	0	0
Cp2		10.7	WeB	WARSAW	2018-11-14	Soil & Forage Analysis Lab	6211	**2**	**1**	6.3	3.7	34	95	0	0
Cw		7.5	Dt	DRUMMER	2018-11-14	Soil & Forage Analysis Lab	6211	**2**	**1**	6.7	4.9	28	88	0	0

Crop Year Soil Test Needed

Field Name	Soil Test Date	2018	2019	2020	2021	2022	2023	2024
Ap1	2018-10-29						X	
Ap2	2018-10-29						X	
Aw	2018-10-29						X	
Bp	2018-10-29						X	
Bw1	2018-10-29						X	
Bw2	2018-10-29						X	
Cp1	2018-11-14						X	
Cp2	2018-11-14						X	
Cw	2018-11-14						X	

FM2: Application Summary Report

Starting Year	**2015**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date:	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

Annual Manure Production And Use By Source

Total Value = $ Value of all nutrients, incorporated including S.

Source	

Application Results Reported For Farm All

Annual Pounds Of Available N, P2O5 And K2O Applied From Manure and Fertilizer.								
		2015	2016	2017	2018	2019	2020	2021
Produced from Manure (lb)	Ninj P2O5 K2O	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Total Available Manure Nutrients Applied (lb)	Ninj P2O5 K2O	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Total Fertilizer Nutrients Applied (lb)	N P2O5 K2O	1,449 3,706 10,420	0 0 0	602 2,858 5,527	0 0 0	1,449 3,706 10,420	0 0 0	0 0 0
Total Crop Removal (lb)	P2O5 K2O	1,880 3,196	2,632 1,880	1,504 2,632	2,632 1,880	1,880 3,196	512 2,304	512 2,304
Nutrient Balance (Applied - Crop removal, lb)	P2O5 K2O	1,826 7,224	-2,632 -1,880	1,354 2,895	-2,632 -1,880	1,826 7,224	-512 -2,304	-512 -2,304

Annual Pounds Of Available N, P2O5 And K2O Applied From Manure and Fertilizer.		
		2022
Produced from Manure (lb)	Ninj P2O5 K2O	0 0 0
Total Available Manure Nutrients Applied (lb)	Ninj P2O5 K2O	0 0 0
Total Fertilizer Nutrients Applied (lb)	N P2O5 K2O	0 0 0
Total Crop Removal (lb)	P2O5 K2O	512 2,304
Nutrient Balance (Applied - Crop removal, lb)	P2O5 K2O	-512 -2,304

NM3: Field Data and 590 Assessment Plan

Reported For	Ford Property
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

Field Data: 38 Total Acres Reported.

Field Name	SubFarm	FSA Trct	FSA Fld	Acres	County	Critical Soil Series & Symbol	F. Slp %	F.Slp Len ft	Below Field Slope To Water %	Dist.To Water ft	Contour/ Filters	Irrig	Tiled	Rotation	Tillage	Report Period	Field "T" t/ac	Rot Avg Soil Loss t/ac	SCI	Rot Avg PI	Soil Test P ppm	Rot P2O5 Bal lb/ac	P2O5 Bal Target lb/ac
Ap1				1	Kenosha	MARKHAM MeC2	9	150	2.1 - 6	0 - 300	No / No	No	No	Gnh-Gnh-Gnh-Gnh	None-None-None-None	2020-2023	**5**	**0**	**1.5**	**0**	52	0	0
Ap2				4.1	Kenosha	LAWSON VARIANT Lp	1	250	0 - 2	0 - 300	No / No	No	No	Gnh-Gnh-Gnh-Gnh	None-None-None-None	2020-2023	**5**	**0**	**1.5**	**0**	52	0	0
Aw				4.1	Kenosha	LAWSON VARIANT Lp	1	250	0 - 2	0 - 300	No / No	No	No	RCH-RCH-RCH-RCH	None-None-None-None	2020-2023	**5**	**0**	**1.4**	**0**	52	-160	0
Bp				6.5	Kenosha	WARSAW WeB	4	200	2.1 - 6	0 - 300	No / No	No	No	Gnh-Gnh-Gnh-Gnh	None-None-None-None	2020-2023	**3**	**0**	**1.5**	**0**	44	0	-
Bw1				1	Kenosha	DRUMMER Dt	1	250	6.1 - 12	0 - 300	No / No	No	No	RCH-RCH-RCH-RCH	None-None-None-None	2020-2023	**4**	**0**	**1.4**	**0**	44	-160	-
Bw2				0.2	Kenosha	DRUMMER Dt	1	250	2.1 - 6	0 - 300	No / No	No	No	RCH-RCH-RCH-RCH	None-None-None-None	2020-2023	**4**	**0**	**1.4**	**0**	44	-160	-

Field Name	SubFarm	FSA Trct	FSA Fld	Acres	County	Critical Soil Series & Symbol	F. Slp %	F.Slp Len ft	Below Field Slope To Water %	Dist.To Water ft	Contour/ Filters	Irrig	Tiled	Rotation	Tillage	Report Period	Field "T" t/ac	Rot Avg Soil Loss t/ac	SCI	Rot Avg PI	Soil Test P ppm	Rot P2O5 Bal lb/ac	P2O5 Bal Target lb/ac
Cp1				2.5	Kenosha	WARSAW WeB	4	200	2.1 - 6	0 - 300	No / No	No	No	Gnh-Gnh-Gnh-Gnh	None-None-None-None	2020-2023	**3**	**0**	**1.5**	**0**	28	0	-
Cp2				10.7	Kenosha	WARSAW WeB	4	200	0 - 2	301 - 1000	No / No	No	No	Gnh-Gnh-Gnh-Gnh	None-None-None-None	2020-2023	**3**	**0**	**1.5**	**0**	34	0	-
Cw				7.5	Kenosha	DRUMMER Dt	1	250	0 - 2	0 - 300	No / No	No	No	RCH-RCH-RCH-RCH	None-None-None-None	2020-2023	**4**	**0**	**1.4**	**0**	28	-160	-

Crop Abbreviations

Abbreviation	Crop
Gnh	Grasslands, permanent, not harvested
RCH	Reed canary grass

Tillage Abbreviations

Abbreviation	Tillage
None	None

FM9: Nutrient Management Report

Crop Year	**2016**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2015 Crop	2016 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Ap2	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Aw	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Bp	6.5	WARSAW WeB	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Bw1	1	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0
Bw2	0.2	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0
Cp1	2.5	WARSAW WeB	28	88	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Cp2	10.7	WARSAW WeB W	34	95	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	140 0.05 /MRTN	0	0	0	0	0	-140	0	0

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2015 Crop	2016 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Cw	7.5	DRUMMER Dt W	28	88	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	Fall Chisel, disked	130 0.05 /MRTN	0	0	0	0	0	-130	0	0

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2017**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2016 Crop	2017 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	0	16	76	147	16	76	147
Ap2	4.1	LAWSON VARIANT Lp	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	0	16	76	147	16	76	147
Aw	4.1	LAWSON VARIANT Lp	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	0	16	76	147	16	76	147
Bp	6.5	WARSAW WeB	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Bw1	1	DRUMMER Dt W	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Bw2	0.2	DRUMMER Dt W	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Cp1	2.5	WARSAW WeB	28	88	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Cp2	10.7	WARSAW WeB W	34	95	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123
Cw	7.5	DRUMMER Dt W	28	88	Corn grain, 18 inch rows	Soybeans 15-20 inch row	46-55	Fall Chisel, disked	0	0	24	16	76	147	16	76	123

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.

C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2018**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2017 Crop	2018 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Ap2	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Aw	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Bp	6.5	WARSAW WeB	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Bw1	1	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	130 0.05 /MRTN	0	0	0	0	0	-130	0	0
Bw2	0.2	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	130 0.05 /MRTN	0	0	0	0	0	-130	0	0
Cp1	2.5	WARSAW WeB	28	88	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	140 0.05 /MRTN	0	0	0	0	0	-140	0	0
Cp2	10.7	WARSAW WeB W	34	95	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	140 0.05 /MRTN	0	0	0	0	0	-140	0	0

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2017 Crop	2018 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Cw	7.5	DRUMMER Dt W	28	88	Soybeans 15-20 inch row	Corn grain, 18 inch rows	171-190	No Till	130 0.05 /MRTN	0	0	0	0	0	-130	0	0

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2019**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2018 Crop	2019 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	47	34	88	296	34	88	249
Ap2	4.1	LAWSON VARIANT Lp	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	47	34	88	296	34	88	249
Aw	4.1	LAWSON VARIANT Lp	52	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	47	34	88	296	34	88	249
Bp	6.5	WARSAW WeB	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	72	40	102	271	40	102	199
Bw1	1	DRUMMER Dt W	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	72	40	102	271	40	102	199
Bw2	0.2	DRUMMER Dt W	44	99	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	72	40	102	271	40	102	199
Cp1	2.5	WARSAW WeB	28	88	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	72	40	102	271	40	102	199
Cp2	10.7	WARSAW WeB W	34	95	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	72	40	102	271	40	102	199
Cw	7.5	DRUMMER Dt W	28	88	Corn grain, 18 inch rows	Soybeans 15-20 inch row	56-65	Spring Chisel, disked	0	0	72	40	102	271	40	102	199

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.

C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2020**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2019 Crop	2020 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Soybeans 15-20 inch row	Grasslands, permanent, not harvested	0-0	None	0	0	0	20	0	0	20	0	0
Ap2	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Grasslands, permanent, not harvested	0-0	None	0	0	0	20	0	0	20	0	0
Aw	4.1	LAWSON VARIANT Lp	52	99	Soybeans 15-20 inch row	Reed canary grass	4-7	None	250	0	0	20	0	0	-230	0	0
Bp	6.5	WARSAW WeB	44	99	Soybeans 15-20 inch row	Grasslands, permanent, not harvested	0-0	None	0	0	0	20	0	0	20	0	0
Bw1	1	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Reed canary grass	4-7	None	250	0	11	20	0	0	-230	0	-11
Bw2	0.2	DRUMMER Dt W	44	99	Soybeans 15-20 inch row	Reed canary grass	4-7	None	250	0	11	20	0	0	-230	0	-11
Cp1	2.5	WARSAW WeB	28	88	Soybeans 15-20 inch row	Grasslands, permanent, not harvested	0-0	None	0	0	0	20	0	0	20	0	0
Cp2	10.7	WARSAW WeB W	34	95	Soybeans 15-20 inch row	Grasslands, permanent, not harvested	0-0	None	0	0	0	20	0	0	20	0	0
Cw	7.5	DRUMMER Dt W	28	88	Soybeans 15-20 inch row	Reed canary grass	4-7	None	250	0	11	20	0	0	-230	0	-11

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2021**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2020 Crop	2021 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Ap2	4.1	LAWSON VARIANT Lp	52	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Aw	4.1	LAWSON VARIANT Lp	52	99	Reed canary grass	Reed canary grass	4-7	None	250	0	171	0	0	0	-250	0	-171
Bp	6.5	WARSAW WeB	44	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Bw1	1	DRUMMER Dt W	44	99	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210
Bw2	0.2	DRUMMER Dt W	44	99	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210
Cp1	2.5	WARSAW WeB	28	88	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Cp2	10.7	WARSAW WeB W	34	95	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Cw	7.5	DRUMMER Dt W	28	88	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2022**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2021 Crop	2022 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Ap2	4.1	LAWSON VARIANT Lp	52	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Aw	4.1	LAWSON VARIANT Lp	52	99	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210
Bp	6.5	WARSAW WeB	44	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Bw1	1	DRUMMER Dt W	44	99	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210
Bw2	0.2	DRUMMER Dt W	44	99	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210
Cp1	2.5	WARSAW WeB	28	88	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Cp2	10.7	WARSAW WeB W	34	95	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Cw	7.5	DRUMMER Dt W	28	88	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

FM9: Nutrient Management Report

Crop Year	**2023**
Reported For	**Ford Property**
Printed	**2019-07-11**
Plan Completion/Update Date	**2018-11-07**
SnapPlus Version 18.1 built on 2019-01-15	
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Prepared for:
Ford Property
attn:Ford Property

Field data: 38 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2022 Crop	2023 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
Ap1	1	ELLIOTT EtB	52	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Ap2	4.1	LAWSON VARIANT Lp	52	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Aw	4.1	LAWSON VARIANT Lp	52	99	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210
Bp	6.5	WARSAW WeB	44	99	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Bw1	1	DRUMMER Dt W	44	99	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210
Bw2	0.2	DRUMMER Dt W	44	99	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210
Cp1	2.5	WARSAW WeB	28	88	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Cp2	10.7	WARSAW WeB W	34	95	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
Cw	7.5	DRUMMER Dt W	28	88	Reed canary grass	Reed canary grass	4-7	None	250	0	210	0	0	0	-250	0	-210

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 300 feet
L	Local restrictions on nutrient applications.
%	Slope restriction for winter applications
P	High permeability N restricted soils
R	N restricted soils with less than 20 inches to bedrock
W	N restricted soils with less than 12 inches to apparent water table
+	This map unit may have any of the N restrictive features, however an on-site investigation is needed to identify which restrictions may actually be present.

WQ1: P Trade Report

Reported For	Ford Property
Printed	2019-07-11
Plan Completion/Update Date	2018-11-07
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\WE Energies\Paris, WI Generating Station\5242_WQT \Permitting & Regulations\WQT\Potential Partners\Ford Field\We Energies Ford Property Future Rev 1 06182019 Dt_soybean 2019.snapDb	

Prepared for:
Ford Property
attn:Ford Property

The P Trade Report estimates the annual pounds of phosphorus (P) in surface runoff from cropland entering surface waters. These P loss calculations are based on a field's soil test P concentration, crops, tillage, nutrient management practices and estimates of average runoff and sheet and rill erosion for the predominant soil type. Losses from concentrated flow channel or gully erosion with a field are not included in these calculations. Field runoff losses are calculated for each year as **PTP** (lb P/field/yr). Fields are only included if there are at least 2 years of crops before the selected start year. Before using this report as part of a Water Quality Trade activity, phosphorus losses (PTP) must be converted into 'P credits' according to DNR guidance.

For more information go to **http://dnr.wi.gov/** and type keyword: **Water Quality Trading**

Questions? Please contact DNRphosphorus@wisconsin.gov

This report was developed for Wisconsin DNR Water Quality Trading and Adaptive Management purposes and cannot be used to demonstrate compliance with NR 151 or NRCS 590 NM plan requirements.

P Trade Report				PTP										
Field Name	Soil Series	Soil Symbol	Acres	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Ap1	ELLIOTT	EtB	1	4	4	4	1	1	0	0	0	0	0	0
Ap2	LAWSON VARIANT	Lp	4	9	9	11	3	2	2	1	1	1	1	1
Aw	LAWSON VARIANT	Lp	4	9	9	11	4	2	2	1	1	1	1	1
Bp	WARSAW	WeB	7	15	15	17	3	2	1	1	1	1	1	1
Bw1	DRUMMER	Dt	1	2	2	2	1	0	0	0	0	0	0	0
Bw2	DRUMMER	Dt	0	0	0	0	0	0	0	0	0	0	0	0

PTP																			
2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PTP		
2048	2049	2050
0	0	0
1	1	1
0	0	0
1	1	1
0	0	0
0	0	0

P Trade Report				PTP										
Field Name	Soil Series	Soil Symbol	Acres	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Cp1	WARSAW	WeB	3	6	5	6	1	0	0	0	0	0	0	0
Cp2	WARSAW	WeB	11	20	18	23	4	2	2	2	1	1	1	1
Cw	DRUMMER	Dt	8	12	11	16	5	2	2	1	1	1	1	1
Total			**38**	**77**	**74**	**90**	**22**	**12**	**9**	**8**	**7**	**7**	**6**	**6**

PTP																			
2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	**6**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**

PTP		
2048	2049	2050
0	0	0
1	1	1
0	0	0
4	**4**	**4**

APPENDIX G

Long-Term Credit Availability

Appendix G

Long-Term Credit Availability

Year	TP Credits Available [lbs/yr]	Year	TP Credits Available [lbs/yr]	Year	TP Credits Available [lbs/yr]
2019*	0.00	2030	90.83	2041	55.25
2020*	74.50	2031	59.63	2042	87.36
2021*	53.11	2032	84.31	2043	58.04
2022	90.59	2033	56.41	2044	80.81
2023	59.18	2034	89.83	2045	54.00
2024	85.49	2035	59.21	2046	85.94
2025	56.68	2036	83.21	2047	56.60
2026	91.60	2037	55.84	2048	79.44
2027	59.79	2038	88.61	2049	53.21
2028	85.10	2039	58.65	2050	84.50
2029	56.67	2040	82.06		

*Note: This table provides modeled output for all years. However, credits will not be used until the prairie and wetland are fully established.

It should also be noted that a pattern is established based on the previous crop rotation. The average credits available in even numbered years is 85.25 lbs/yr while the average credits available in odd numbered years is 56.82 lbs/yr

APPENDIX H

"Practice Registration Form," Form 3400-207

State of Wisconsin
Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921
dnr.wi.gov

Water Quality Trading Management Practice Registration

Form 3400-207 (R 1/14)

Notice: Pursuant to s. 283.84, Wis. Stats., this form must be completed by any WPDES permittee that is using water quality trading as a method of complying with a permit limitation. Failure to complete this form would not result in penalties. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Applicant Information

Permittee Name	Permit Number WI-	Facility Site Number

Facility Address	City	State	ZIP Code

Project Contact Name (if applicable)	Address	City	State	ZIP Code

Project Name

Broker/Exchange Information (if applicable)

Was a broker/exchange be used to facilitate trade? ◯ Yes ◯ No

Broker/Exchange Organization Name	Contact Name

Address	Phone Number	Email

Trade Registration Information (Use a separate form for each trade agreement)

Type	Trade Agreement Number	Practices Used to Generate Credits	Anticipated Load Reduction	Trade Ratio	Method of Quantification
◯ Urban NPS ◯ Agricultural NPS ◯ Other					

County	Closest Receiving Water Name	Land Parcel ID(s)	Parameter(s) being traded

The preparer certifies all of the following:

- I have completed this document to the best of my knowledge and have not excluded pertinent information.
- I certify that the information in this document is true to the best of my knowledge.

Signature of Preparer	Date Signed

Authorized Representative Signature

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision. Based on my inquiry of those persons directly responsible for gathering and entering the information, the information is, to the best of my knowledge and belief, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of Authorized Representative	Date Signed

Leave Blank – For Department Use Only

Date Received		Trade Docket Number
Entered in Tracking System ☐ Yes	Date Entered	Name of Department Reviewer

APPENDIX I

Restoration Plan

WETLAND AND PRAIRIE RESTORATION PLAN

FOR

Portion of 5626 172nd Ave

Town of Paris, Wisconsin

Prepared for:

We Energies

Prepared by:

1033 N. Mayfair Road
Suite 200
Milwaukee, WI 53226

March 25, 2019

Scott M. Horzen, Wetland Ecologist — Date

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1.0 INTRODUCTION

We Energies (Company) is proposing to utilize Water Quality Trading to offset point source discharge of phosphorus at the Paris Generating Station. This document (Plan) has been prepared to describe field methodology, proposed restoration community types, and operation and maintenance of the areas described in the Paris Generating Station Water Quality Trading Plan. These areas (Site) will be converted from agricultural production and restored to the suitable vegetation community types based on anticipated hydrologic regime within each area. The Site was chosen as a potential water quality trading site, because it is currently being farmed, has the potential to effectively restore it as grassland, and is located within the same watershed (Des Plaines River) as the Paris Generating Station.

General Site Description

The location of the Site, including restoration areas identified in the Water Quality Trading Plan is shown on Figure 1, Appendix A. The total Site is approximately 50 acres; located northwest of the intersection of 172nd Ave. (CTH D) and 60th Street (CTH K), in the Town of Paris, Kenosha County, WI. The Site is comprised of approximately 37 acres of agricultural land, 9.5 acres of wetland and waterway associated with the Des Plains River, and 4 acres of maintained turf (antenna array) located in the northwest corner of the Site. The grassland restoration will include establishment of prairie and wetland habitat. It will occur within the actively cultivated agricultural areas and will be seeded and planted with appropriate native species. Additional details of the restoration are provided in Section 4.0 below.

2.0 DETERMINATION OF SUITABLE RESTORATION TYPES

Per WDNR Water Quality Trading Publications, management practices such as taking agricultural land out of production and restoring it to prairie or wetland is an acceptable means of generating water quality trading credits. In order to create a successful site, dense cover of perennial vegetation is required. To estimate future site conditions and select the appropriate restoration community types, an investigation was conducted to determine what community types would be present if the Site wasn't actively farmed. This investigation consisted of (1) off-site preliminary data collection and assessment; (2) on-site data collection and field investigation; (3) post field data assessment; and (4) community type determination. The on-site field investigation was conducted on January 16, 2019. This report provides a summary of all phases this investigation.

2.1 Review of Existing Data

The following resources were reviewed as part off-site preliminary data collection and assessment:

- U.S. Geological Survey 7.5 minute quadrangle map
- Wisconsin Department of Natural Resources Wisconsin Wetland Inventory (WWI); digital version and mapping obtained from the surface water data viewer
- Kenosha County LIS Historical LIDAR Topography
- Antecedent Precipitation Data (1981-2018; ACIS)
- Aerial Photographs of the Site (Google, Bing, and Kenosha County)

- U.S. Department of Agriculture Natural Resources Conservation Service (2019). National Cooperative Soil Survey: Web Soil Survey. Obtained at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
- U.S. Department of Agriculture Natural Resources Conservation Service (2019). *Hydric Soils of the United States*
- FSA Slides (1981-2004, 2006, 2008, 2010, 2013 and 2015)

2.2 Field Investigation

The entire Site was preliminarily evaluated for the presence of existing wetlands, wetland signatures and hydric soils (Wisconsin Wetland Inventory, available aerial photography, and USDA-NRCS Mapping). Once potential wetland areas were identified through the map review, the field investigation was performed and included traversing the entire Site and surveying approximate boundaries of areas that were likely wetlands. This included areas that have been actively cultivated. Due to the time of year the investigation was completed, it was not possible to evaluate existing soil profiles or assess saturation or ground water elevations below ground surface. While under frozen conditions, the Site was generally free from snow cover allowing adequate visibility of dormant vegetation and ground surface conditions. The proposed community boundary locations were based on field conditions observed during the site investigation and the following features observed on the available mapping:

- Areas containing standing water as depicted on historic aerial photos and FSA farm slides
- Areas containing saturated soils as depicted on historic aerial photos and FSA farm slides
- Area that showed crop stress, altered cropping patterns, or crop damage for the 2018 season (historical aerials and 2019 field investigation)
- Areas containing hydrophytic vegetation (field investigation)
- Site topography (Available county LIDAR data and field Investigation)
- Mapped soils (NRCS-USDA)

3.0 PROPOSED PLANT COMMUNITIES

Based on the results of the initial data assessment and information collected in the field, three potential restoration communities were identified within the Site, including 1) tallgrass prairie, 2), mesic prairie, and 3) wetland (Appendices C and D). A more detailed description of each proposed community is described below.

3.1 Tallgrass Prairie Community

The tallgrass prairie community areas were chosen based on mapped soils, topography, field observations, and cropping history (Appendix B). This community appears to be successfully cropped on an annual basis with little to no crop damage even during the wettest years. According to the Wisconsin Wetland Inventory (WWI), no areas within the proposed tallgrass prairie communities are mapped as wetland (Figure 2, Appendix A). The mapped soils within the Site are shown on Figure 3, Appendix A and described below (shown in order of abundance):

- **Warsaw silt loam, 2 to 6% slopes (WeB)**, well drained
- **Granby fine sandy loam (Gf)**, very poorly drained
- **Lawson silt loam, calcareous variant (Lp)**, somewhat poorly drained

- **Drummer silt loam, gravelly substratum (Dt)**, poorly drained
- **Elliott silty clay loam, 2 to 6 percent slopes (EtB)**, somewhat poorly drained
- **Markham silt loam, 6 to 12 percent slopes eroded (MeC2)**, moderately well drained

The tallgrass prairie communities areas are generally located within the highest elevations on the Site and range from 692 to 700 (Figure 4, Appendix A). These areas are relatively flat and typically drain toward wetlands and the Des Plaines River (Appendices C and D).

3.2 Mesic Prairie Community

The mesic prairie communities were chosen based on mapped soils, field observations, topography, and cropping history (Appendix B). These communities appear to be somewhat successfully cropped on an annual basis with some crop damage observed during the wettest years. According to the WWI, only one small area within the proposed mesic prairie communities is mapped as wetland (Figure 2, Appendix A). The mapped soils within the Site are shown on Figure 3, Appendix A and described below (shown in order of abundance):

- Lawson silt loam, calcareous variant (Lp), somewhat poorly drained
- Wet alluvial land (Ww), somewhat poorly drained
- Granby fine sandy loam (Gf), very poorly drained
- Warsaw silt loam, 2 to 6% slopes (WeB), well drained
- Drummer silt loam, gravelly substratum (Dt), poorly drained
- Elliott silty clay loam, 2 to 6 percent slopes (EtB), somewhat poorly drained
- Markham silt loam, 6 to 12 percent slopes eroded (MeC2), moderately well drained

The mesic prairie communities range from 691 to 696 in elevation (Figure 4, Appendix A). These areas are generally located on gentle slopes between the tallgrass prairie and wetland communities throughout the Site (Appendices C and D).

3.3 Wetland Community

The wetland communities were chosen based on mapped soils, topography, site observations, and cropping history (Appendix B). This community appears to be successfully cropped during normal to dry precipitation years, with moderate crop damage observed during normal years. Significant crop damage is apparent during wet years. According to the Wisconsin Wetland Inventory WWI, most of the wetland communities are either mapped as wetland or indicate wetland(s) too small to delineate (Figure 2, Appendix A). The mapped soils within the site are shown on Figure 3, Appendix A and described below (shown in order of abundance):

- Wet alluvial land (Ww), somewhat poorly drained
- Lawson silt loam, calcareous variant (Lp), somewhat poorly drained
- Elliott silty clay loam, 2 to 6 percent slopes (EtB), somewhat poorly drained
- Warsaw silt loam, 2 to 6% slopes (WeB), well drained

The wetland community areas are generally located at the lowest site elevations and range from 690 to 695 (Figure 4, Appendix A). These areas are generally located within the concave areas that are part of the floodplain of the Des Plaines River (Appendices C and D).

4.0 RECOMENDATIONS

Based on the mapping review and investigation completed at the Site, three community types have been identified for restoration (Appendix D). Prior to the native seed installation, it is recommended that the Site be planted with an agricultural crop in 2019 and harvested in the fall 2019. Preferably, soybeans are planted in 2019. It is recommended the native seeding occur in late fall 2019. Based on the reviewed imagery, it is apparent that the Des Plaines River floods the adjacent fields on a regular basis in the spring. If site conditions or the project schedule does not allow for seeding in the fall of 2019, a spring planting should be scheduled prior to June 1st, or as site conditions allow.

Restoration efforts should be accomplished in accordance with NRCS technical standards (NRCS-327 for work in the tallgrass prairie and mesic prairie and NRCS-657 for work in the wetland). Native seeding should be accomplished with a no-till drill or equivalent where conditions allow. Areas that are not accessible or suitable for using the no-till drill shall be lightly disked, broadcast seeded, and raked.

The locations of the three communities are shown in Appendix D, Exhibit 1. Each community has a recommended seed mix based on the predicted hydrologic regime. The components of each seed mix are shown in Appendix D. The final seed mix utilized in each community may change based on seed availability at the time of seeding. Any changes or substitutions to the proposed seed mixes will be approved by the Company's qualified biologist. Additional details for each seed mix are provided below, including the combined approximate area for each community. Assuming the WQT is approved, the final areas will be determined once the land division is accepted by the town and county:

- Tallgrass prairie community seed mix (14.86 acres) – Contains 29 forb species and 9 grasses, sedges and rushes for a total of 38 species. To be seeded at a minimum 90 seeds per square foot.
- Mesic prairie community seed mix (10.43 acres) – Contains 28 forb species and 12 grasses, sedges and rushes for a total of 40 species. To be seeded at a minimum 90 seeds per square foot.
- Wetland community seed mix (12.71 acres) – Contains 12 forb species and 10 grasses, sedges and rushes for a total of 22 species. To be seeded at a minimum 90 seeds per square foot.

5.0 INITIAL VEGETATION ESTABLISHMENT

Following the native seeding, it is imperative that the Site be monitored several times during each growing season over the first three years to ensure the Site is progressing toward having a dense cover of perennial vegetation. Operation and maintenance activities for the Site will generally follow applicable Sections of NRCS-327 *Conservation Cover*.

Bare areas, or areas with sparse vegetation may need to be reseeded. Prior to any reseeding, areas not performing as expected should be assessed for the cause of the sparse vegetation. Consideration will be given to using the original seed mix or altering it. Any modifications to the

seed mix will be determined in consultation with the Company's project manager and qualified biologist.

During the site investigation, the areas adjacent to the Des Plaines River on-site as well as areas upstream and downstream of the Site were assessed for the presence of invasive species (See Appendix C, Photographic Log). Based on the observations made upstream and directly adjacent to the Site, it is very likely that invasive species such as common reed grass (*Phragmites australis*), reed canary grass (*Phalaris arundinacea*), narrow leaved cattail (*Typha angustifolia*), bush honey suckle (Lonicera x Bella), and common buckthorn (*Rhamnus cathartica*) will establish within restored areas on the Site. Additionally, it is likely that other invasive species such as purple loosestrife (*Lythrum salicaria*) and thistle species (*Cirsium spp*.) may disperse and encroach on the Site. Management of these species may be considered depending on the individual species abundance and distribution.

Site management within the three communities may include one or a combination of the following:

- Mowing
- Prescribed burning
- Spot herbiciding
- Hand pulling

The specific control methods, target species, and timing of any management conducted will be determined based on site conditions. Site conditions will be evaluated during annual monitoring. More extensive site management is expected to continue for a period of two to three years while the vegetation establishes.

6.0 LONG-TERM VEGETATION MANAGEMENT

Once a dense ground cover is established, vegetation management is expected to transition to maintenance management. While the activities of mowing, prescribed burning, herbiciding, and hand pulling are expected to continue, it is anticipated these management activities will occur on a less frequent and less intensive basis than during the initial vegetation establishment. The primary vegetation management objective will be to establish plant communities that have a component of native plant diversity coexisting with anticipated encroachment of invasive species. The objective of long-term vegetation management will not be to maintain native communities unencumbered by invasive species. Reasonable vegetation management efforts will be implemented to achieve this objective.

7.0 INSPECTIONS

During initial vegetation establishment, inspections will occur up to three times during the active growing season with a minimum monitoring frequency of at least one-month between inspections. Generally, inspections will be targeted to occur in early-May, mid-June, and early August. The actual timing of the initial vegetation establishment inspections will be targeted based on weather conditions and vegetation response to management activities. Once

vegetation establishment occurs, one annual inspection will occur in early August by a qualified biologist utilizing a meander survey.

Annual inspections will be conducted by a qualified biologist utilizing a meander survey across the Site. Meander surveys will document overall vegetative cover and estimate the approximate native vegetation cover. Inspections will also identify potential concerns such as erosion, flooding, invasive species, nuisance wildlife activity, trespassing, or any other potential concerns as they relate to achieving permit compliance and the objectives of this Plan. Any concerns identified will be provided to the Company immediately following the inspection.

Data gathered during the inspections will include written field notes, photographs, and other features of interest. Field notes may include lists of native plant species, observed wildlife, and invasive species documentation. Photographs will document vegetation conditions by establishing consistent photo vantage points from which annual photographs will be taken. Photographs will also be used to document any potential concerns observed and implemented corrective actions. Features may be field located during inspections documenting specific locations of potential concerns and implemented corrective actions.

8.0 REPORTING

Inspection and vegetation management reports will be prepared annually. Reports will include data gathered during inspections, vegetation management activities, and any other corrective measures taken to achieve permit compliance and the objectives of this Plan. Written summaries, photographs, and maps will be included in each report. Prescribed vegetation management and other recommended corrective actions will be outlined as well.

Following annual inspections, prescribed vegetation management will be recommended to the Company. The Company, in consultation with the qualified biologist, will determine appropriate and reasonable vegetation management measures. These measures will be implemented in the subsequent growing season to promote compliance with the permit conditions and objectives of the Plan.

9.0 REFERENCES

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APPENDIX A

FIGURES

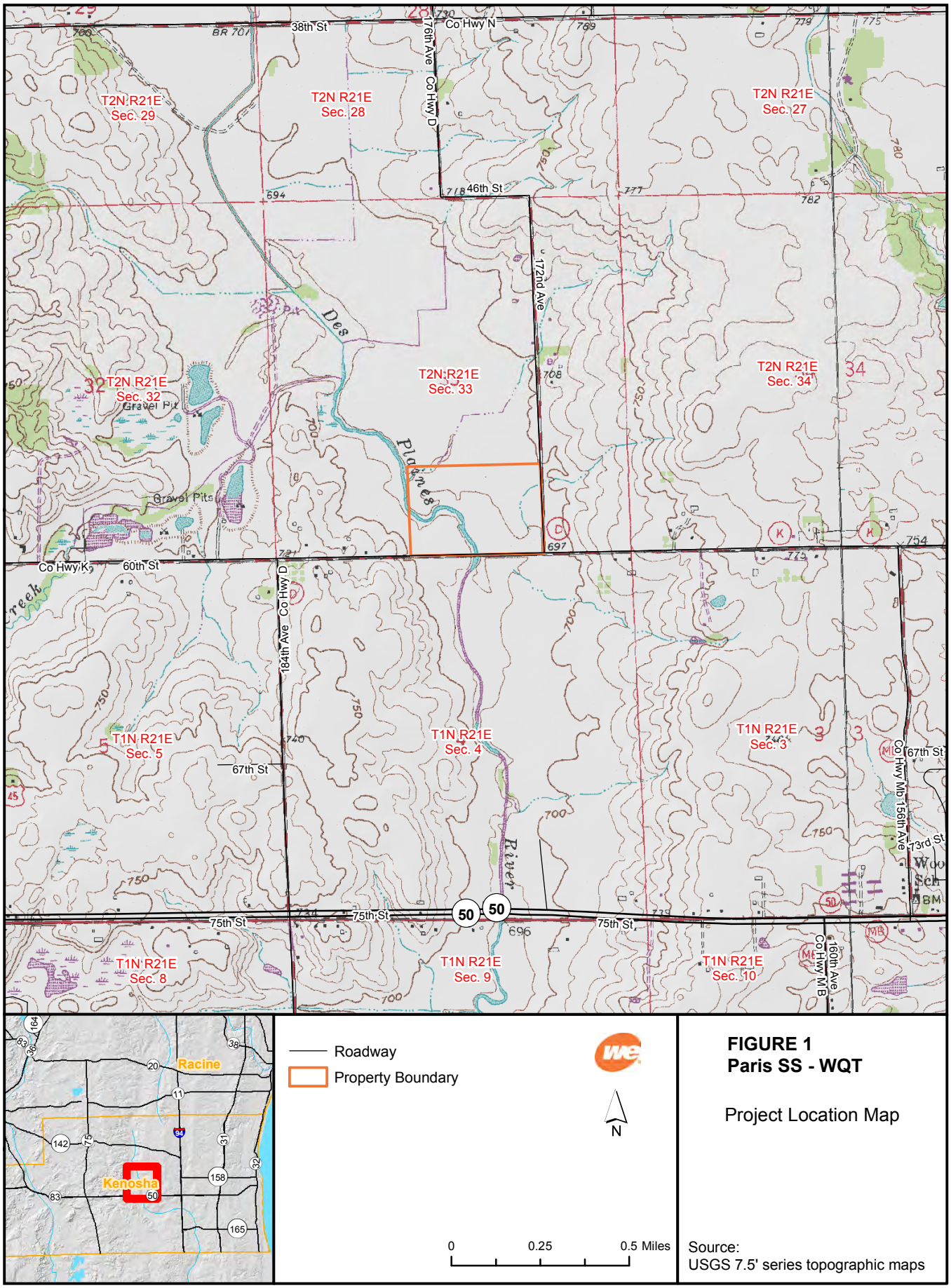
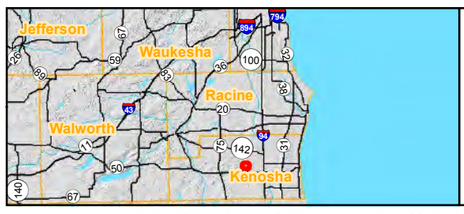


FIGURE 1
Paris SS - WQT

Project Location Map

Source:
USGS 7.5' series topographic maps

c42590 2/12/2019 J:\DATA\FO\Env_Strategy\GIS Projects 2018\ParisSS_P_WQT\proj_loc.mxd



Property Boundary

WDNR Waterway
- Fluctuating
- Intermittent
- Perennial
- Open Water

Wetland Indicator Soils
WDNR Wetlands
WDNR WI Wetlands Inventory

Feet
0 200 400

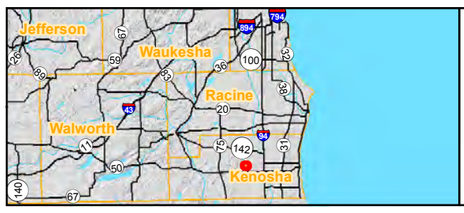
N

FIGURE 2

Paris SS - WQT Wisconsin Wetlands Inventory

Source:
Kenosha County Imagery, 2015
WDNR Wisconsin Wetlands Inventory (WWI)
NRCS SSURGO Soils Data

c42590 2/13/2019 J:\DATA\FO\Env_Strategy\GIS Projects 2018\ParisSS_P_WQT\WWI.mxd



Property Boundary
Soils

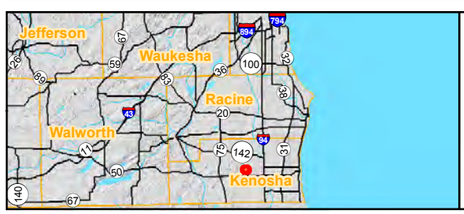
Feet
0 200 400

N

FIGURE 3
Paris SS - WQT
Soils Data

Source:
Kenosha County Imagery, 2015
NRCS SSURGO Soils Data

c42590 2/12/2019 J:\DATA\FO\Env_Strategy\GIS Projects 2018\ParisSS_P_WQT\Soils.mxd



Property Boundary

Contour (1 foot)

Feet
0 200 400

N

FIGURE 4

Paris SS - WQT

Topography

Source:
Kenosha County Imagery, 2015
Kenosha County Contours, 2011

c42590 2/12/2019 J:\DATA\FO\Env_Strategy\GIS Projects 2018\ParisSS_P_WQT\Topography.mxd

APPENDIX B

ANTECEDENT PRECIPITATION DATA AND NRCS-FSA SLIDE HISTORY

Station Name: Kenosha
Kenosha County
Rainfall Evaluation

ANTECEEDENT PRECIPITATION DATA (1981-2018)

	Actual Rainfall					Rainfall Data Evaluation for Each Month, 1 = Dry, 2 = Normal, 3 = Wet					July Evaluation (3-month prior to July Wet, Dry or Normal)*	August Evaluation (3-month prior to August Wet, Dry or Normal)*
Year	Apr	May	Jun	Jul	Aug	Apr	May	Jun	Jul	Aug		
1981	3.66	3.08	3.3	6.67	6.37	2	2	2	3	3	12	15
1982	2.4	3.67	2.46	5.92	3.58	1	2	2	3	2	11	15
1983	5.02	3.68	1.29	2.46	3.32	3	2	1	2	2	10	10
1984	5.12	3.74	3.62	3.53	1.94	3	2	2	2	1	13	12
1985	1.67	3.81	1.91	**M3.85**	6.02	1	2	1	2	3	8	10
1986	2.25	4.65	4.48	6.64	2.74	1	3	3	3	1	16	18
1987	4.93	4.8	1.09	4.01	12.65	3	3	1	2	3	12	11
1988	3.25	0.67	0.8	1.45	1.95	2	1	1	1	1	7	6
1989	1.4	1.63	3.39	4.82	4.73	1	1	2	3	2	9	14
1990	1.61	7.56	4.33	3.54	4.83	1	3	2	2	2	13	13
1991	3.45	4.84	1.05	1.17	2.11	2	3	1	1	1	11	8
1992	1.39	0.23	1.03	3.51	2.9	1	1	1	2	2	6	9
1993	**M7.55**	1.86	8.69	3.26	2.59	3	1	3	2	1	14	13
1994	2.52	0.89	3.59	2.66	4.52	1	1	2	2	2	9	11
1995	6.14	3.56	1.83	3.77	6.38	3	2	1	2	3	10	10
1996	3.57	6.63	5.47	3.93	1.96	2	3	3	2	1	17	15
1997	3.66	4.27	4.59	2.53	3.62	2	2	3	2	2	15	14
1998	5.56	3.31	3.12	3.77	3.66	3	2	2	2	2	13	12
1999	7.71	4.22	6.33	1.08	4.57	3	2	3	1	2	16	11
2000	**M4.80**	8.41	7.51	5.55	2	3	3	3	3	1	18	18
2001	3.37	5.66	3.74	**M1.35**	4.31	2	3	2	1	2	14	10
2002	4.7	2.8	4.76	2.59	3.72	3	2	3	2	2	16	14
2003	2.09	4.44	2.57	3.65	1.02	1	3	2	2	1	13	13
2004	2.22	9.87	5.18	2.95	3.56	1	3	3	2	2	16	15
2005	1.48	2.38	1.02	1.99	3.65	1	2	1	1	2	8	7
2006	3.41	4.53	1.8	3.51	**M2.93**	2	3	1	2	2	11	11
2007	3.9	2.14	3.24	3.81	11.5	2	2	2	2	3	12	12
2008	4.18	2.62	5.29	5.16	1.09	2	2	3	3	1	15	17
2009	5.16	3.41	6	1.55	3.82	3	2	3	1	2	16	11
2010	3.5	4.93	5.48	7.37	1.82	2	3	3	3	1	17	18
2011	5.3	4.45	2.94	4.47	2.23	3	3	2	3	1	15	16
2012	2.86	2.86	0.22	3.64	2.13	1	2	1	2	1	8	10
2013	7.92	2.71	4.95	2.84	1.47	3	3	3	2	1	18	15
2014	3.31	3.66	5.66	2.39	3.75	1	2	3	1	2	14	11
2015	4.25	3.31	2.99	2.74	3.44	2	2	2	2	2	12	12
2016	3.25	**M2.95**	2.51	2.34	4.87	2	2	2	1	2	12	9
2017	5.93	2.76	5.09	9.89	2.54	3	2	3	3	1	16	17
2018	2.86	7.47	9.3	1.49	6.12	2	3	3	1	3	17	12

Normals are for 1971-2000 data

Month	
April	3.85
May	3.37
June	3.59
July	3.68
August	4.19

Normal Inside 30% chance values
Dry: < lower bound for 30% chance
Wet: > upper bound for 30% chance

1 = Dry, 2 = Normal, 3 = Wet (Monthly)

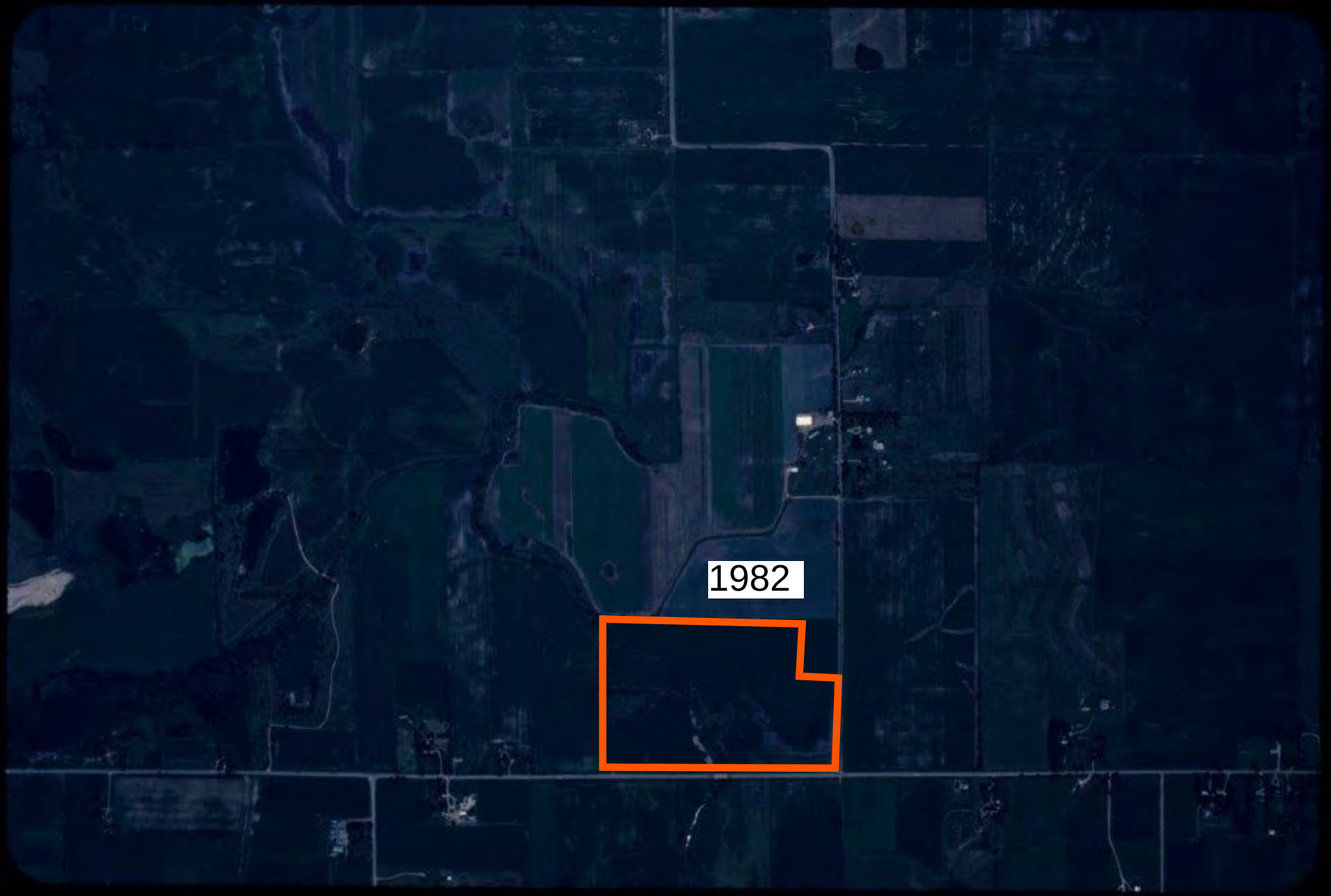
Weights:
1st Month prior = 3
2nd month prior = 2
3rd month prior = 1

	30% chance Lower bound (Dry):	Normal:	: 30% chance Upper bound (Wet)
April	2.72	3.85	4.64
May	2.06	3.37	4.38
June	2.33	3.59	4.38
July	2.25	3.68	4.41
August	2.28	4.19	5.15

If sum is:*

6-9	prior period has been drier than normal
10-14	prior period has been normal
15-18	prior period has been wetter than normal

1981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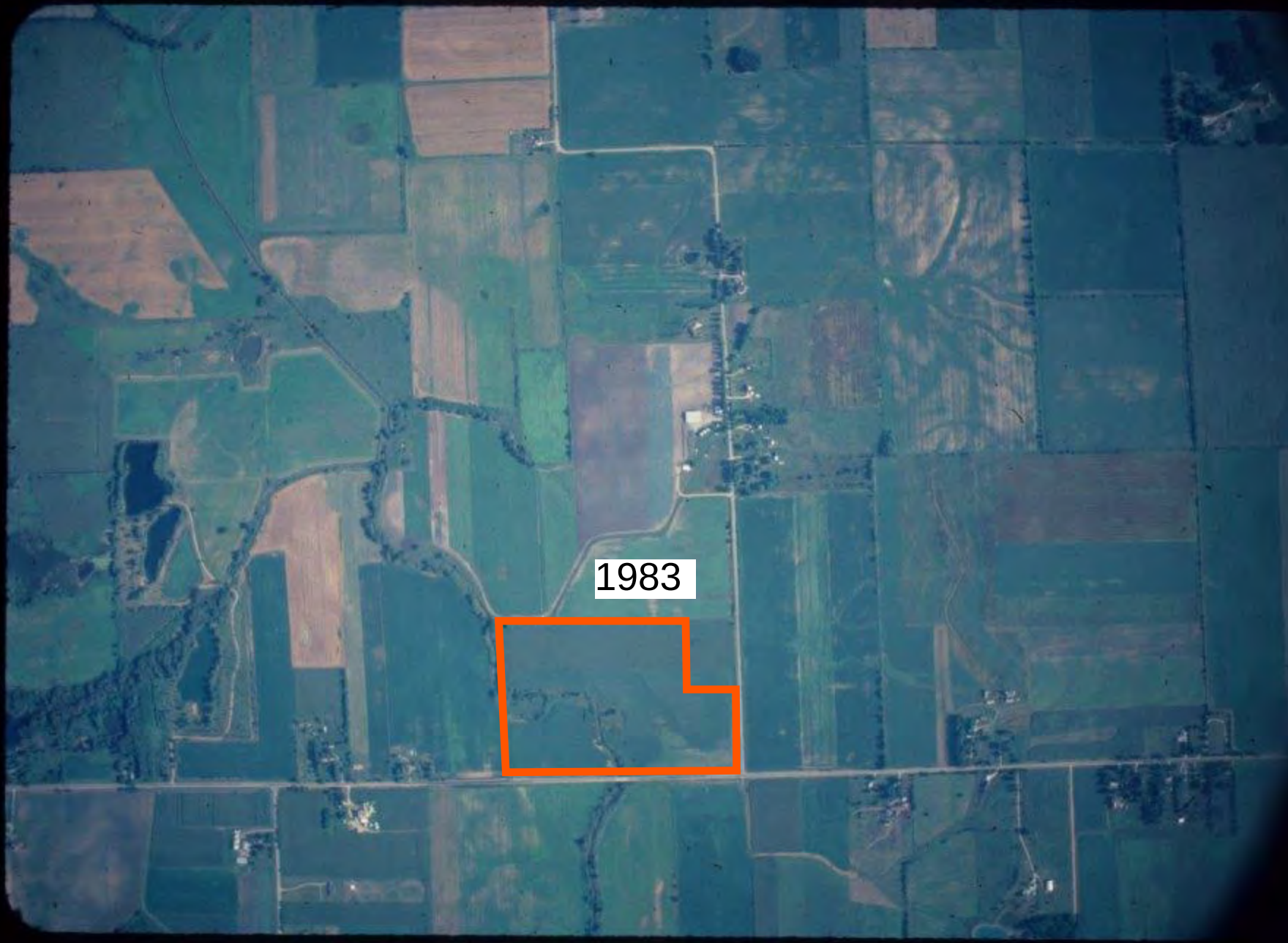
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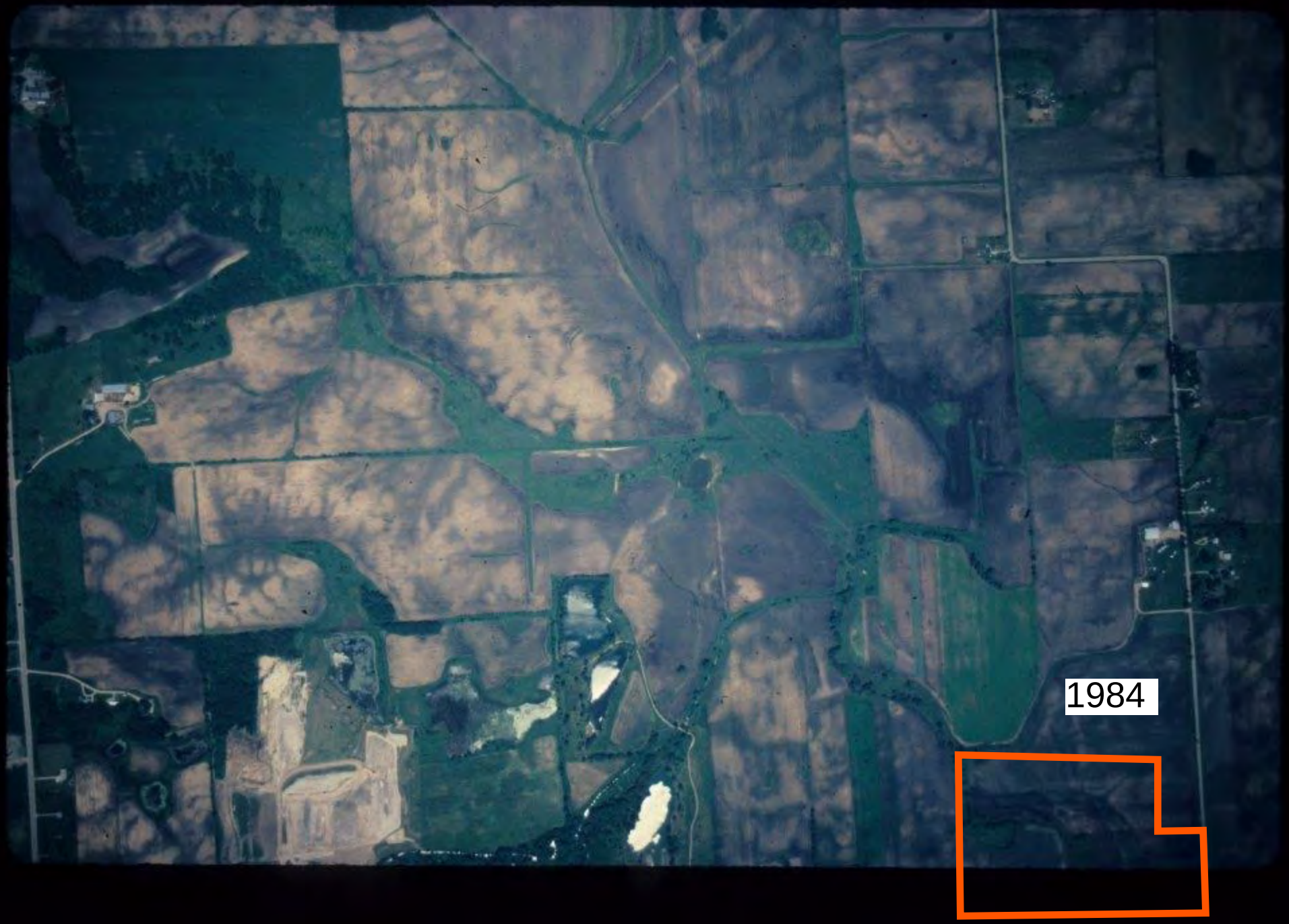
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1985

1986

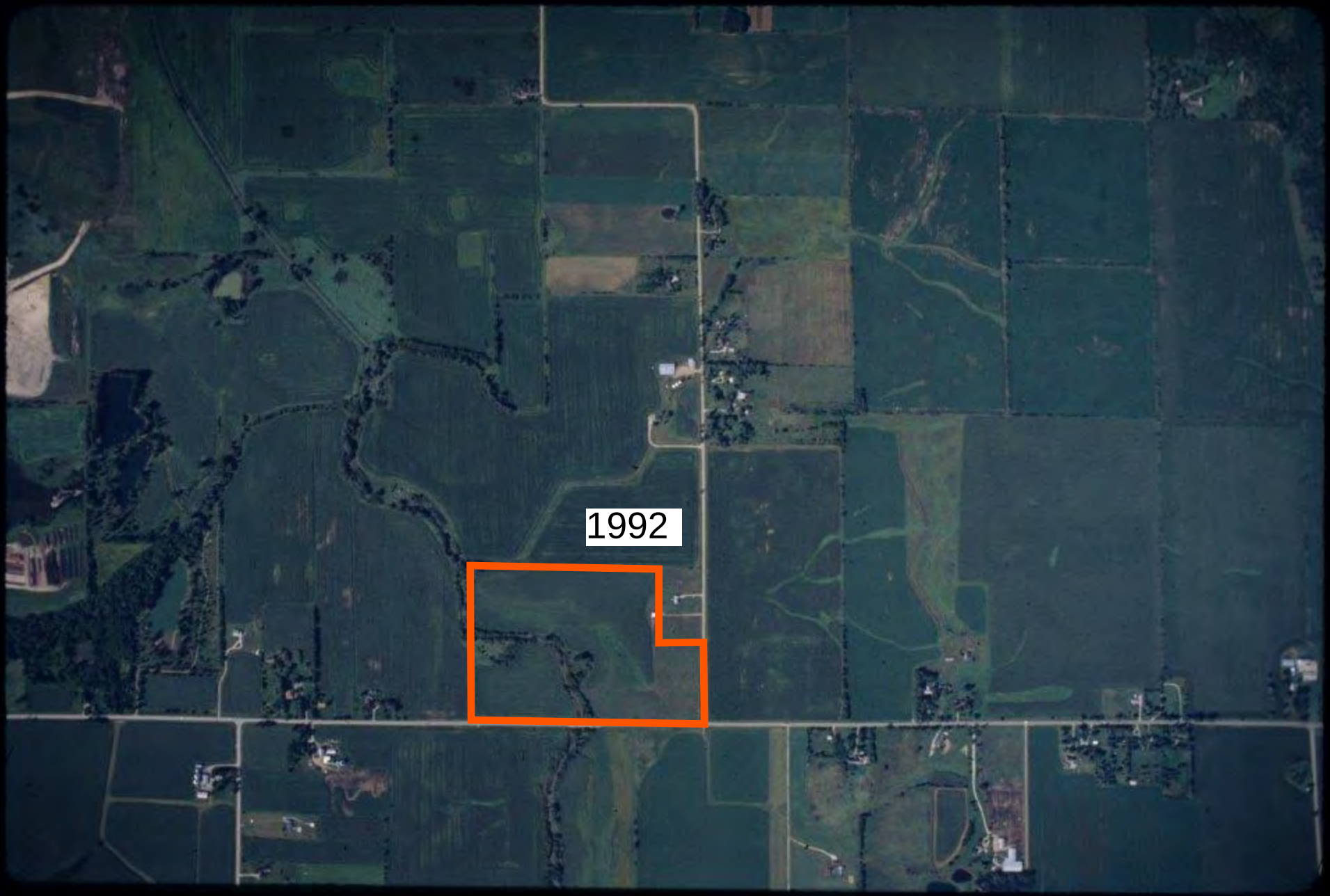
1987

1988

1989

1990

1991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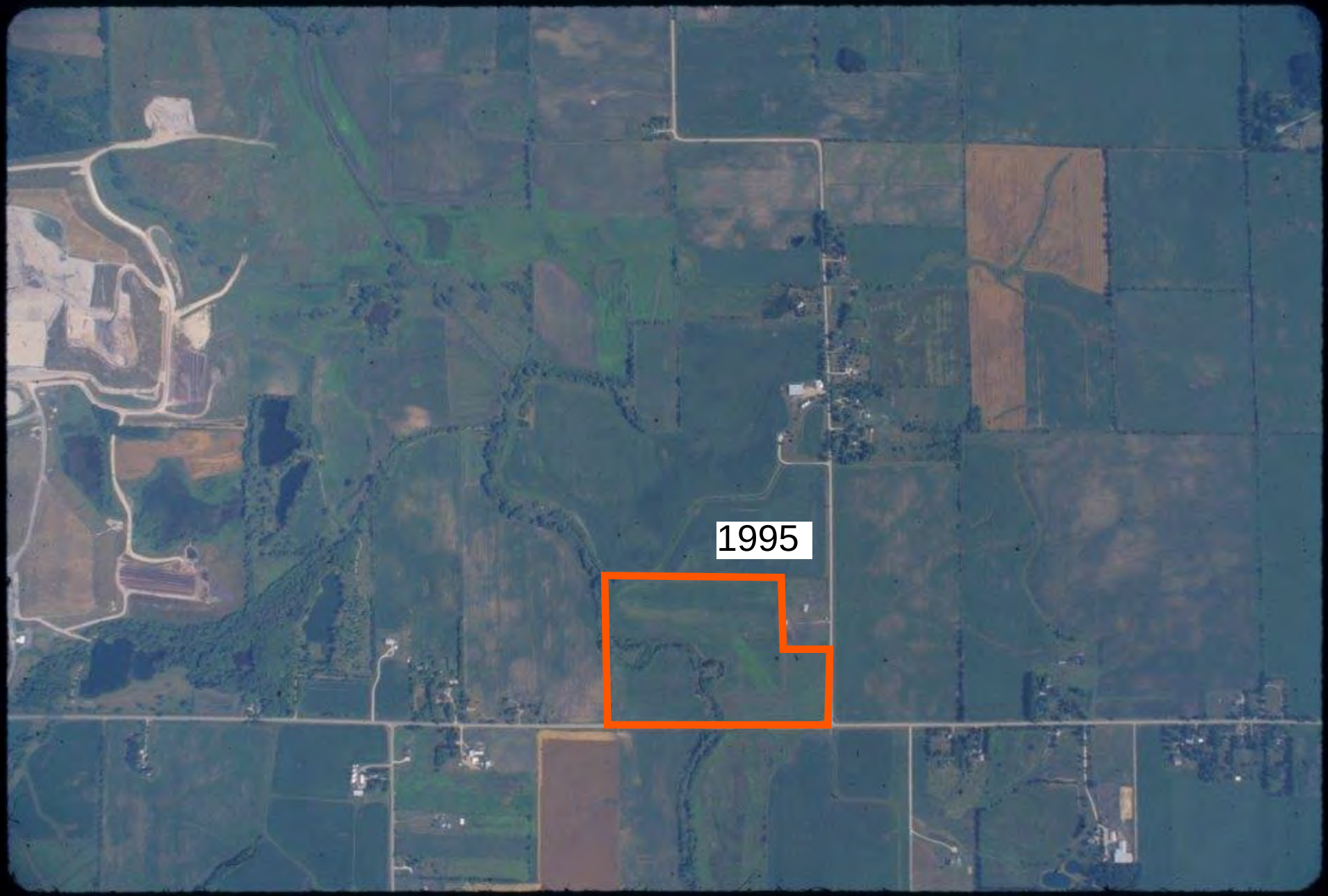
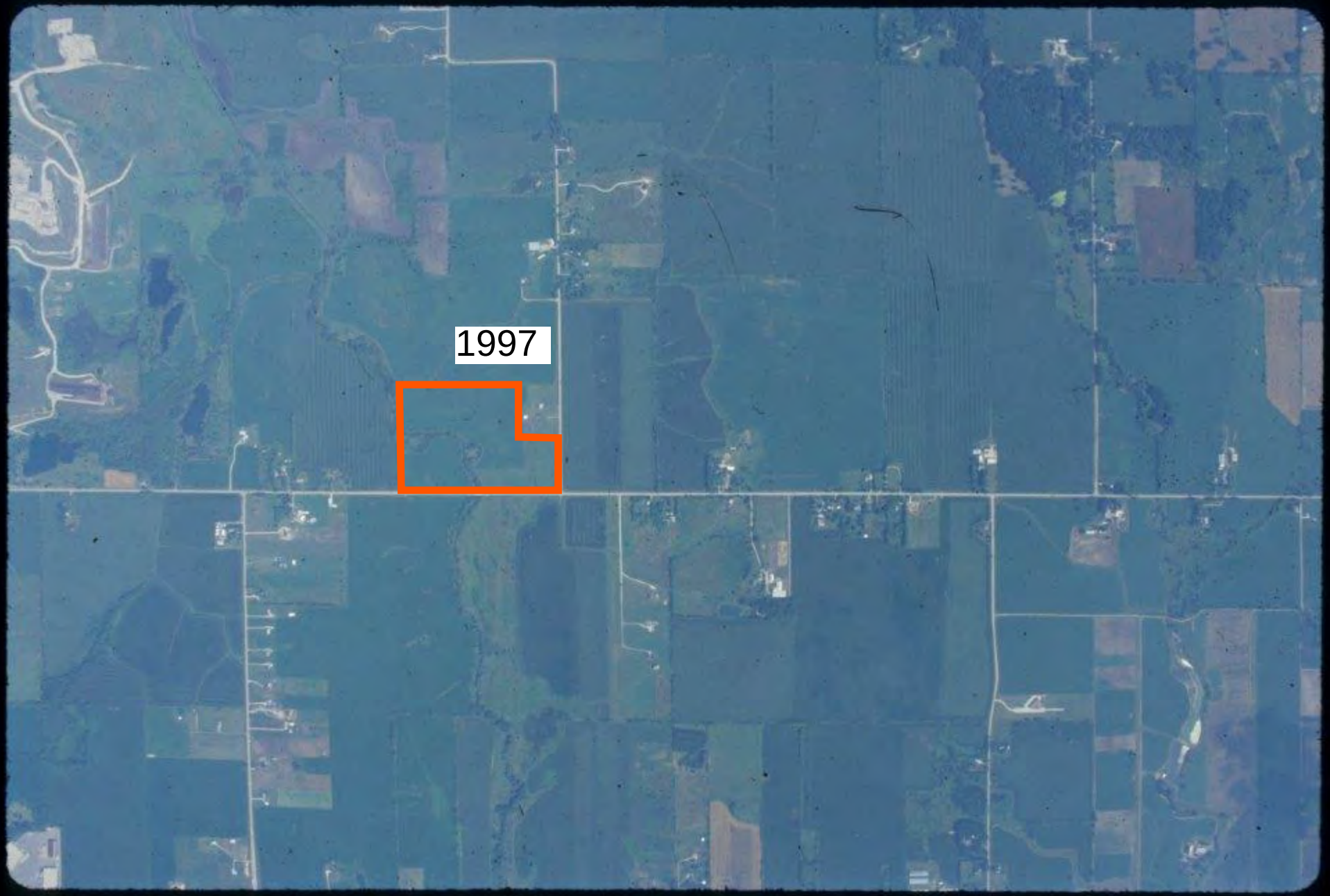
1993

1994


1995

1996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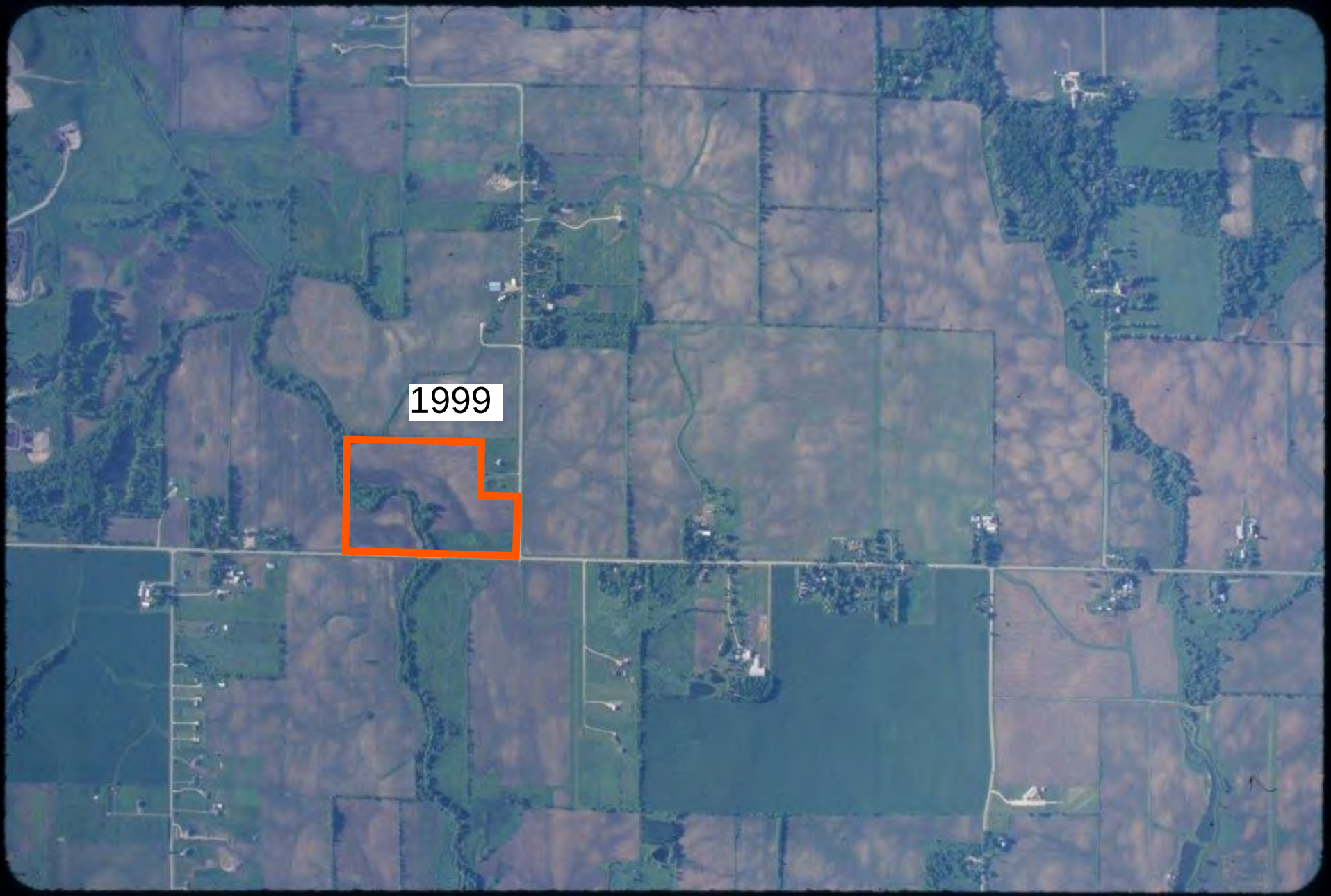
1997

1998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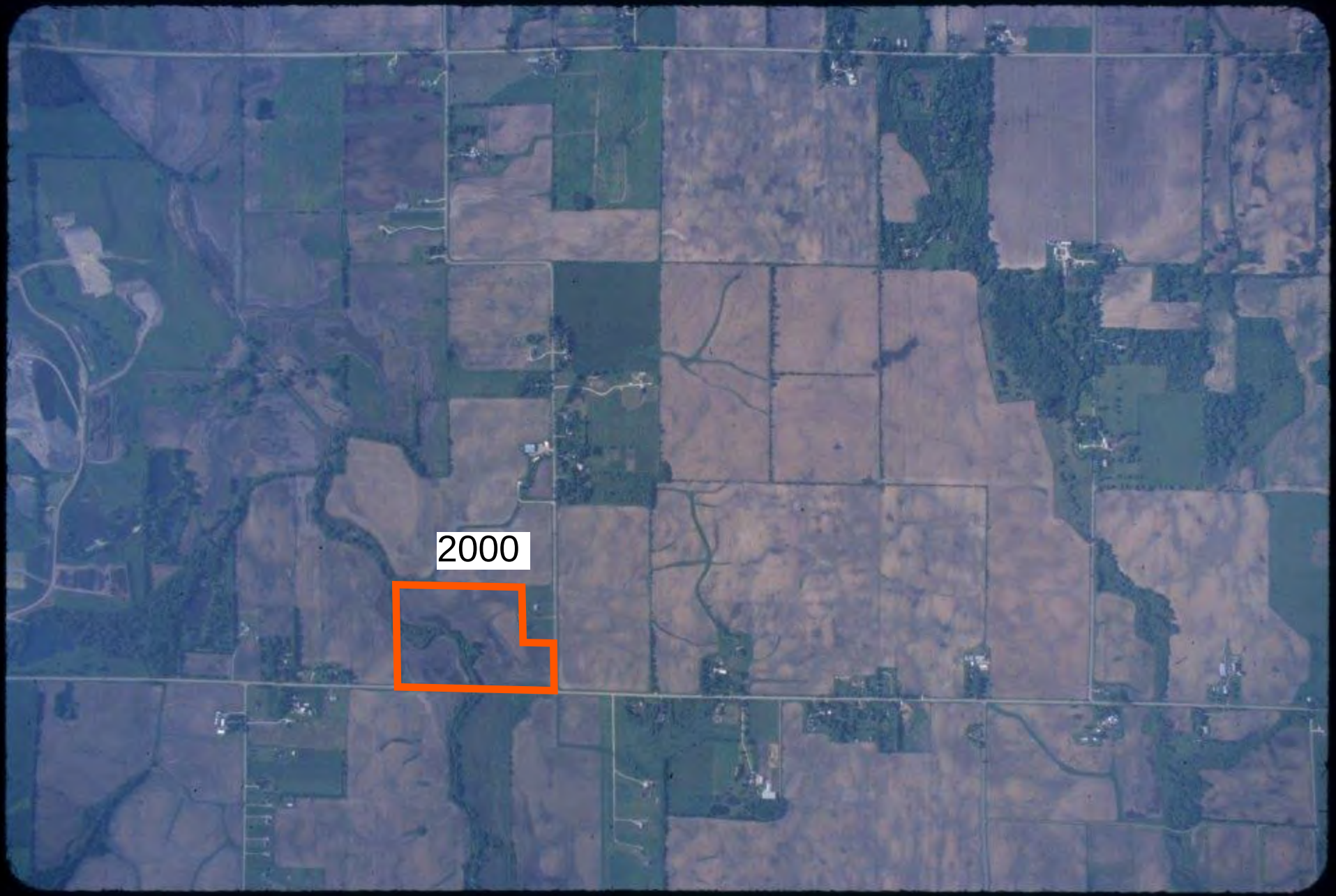
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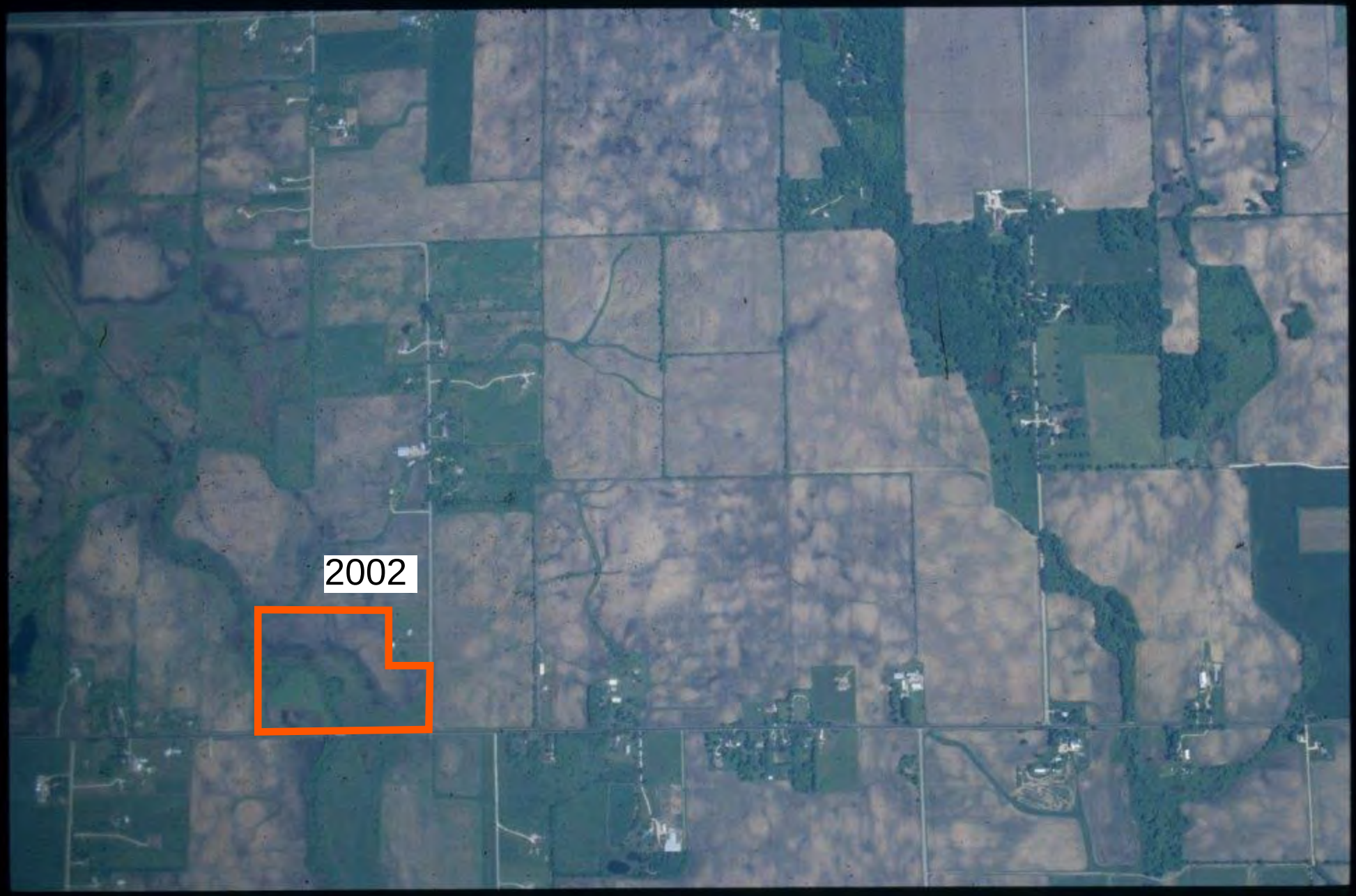
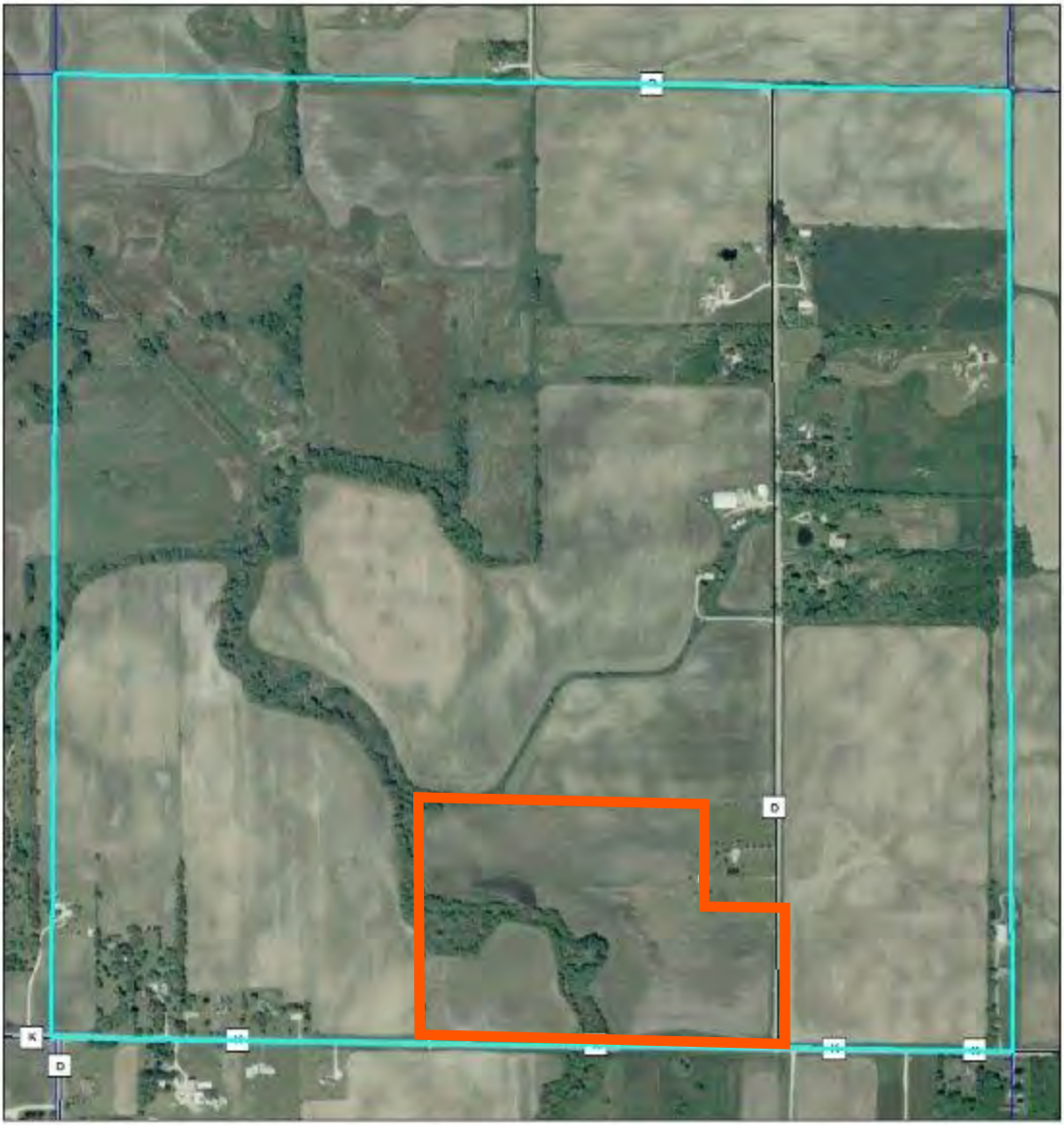
2001


2002

2003

2004



USDA United States Department of Agriculture
Farm Service Agency

0 450 900 1,800 Feet

N

2006 Aerial Photography

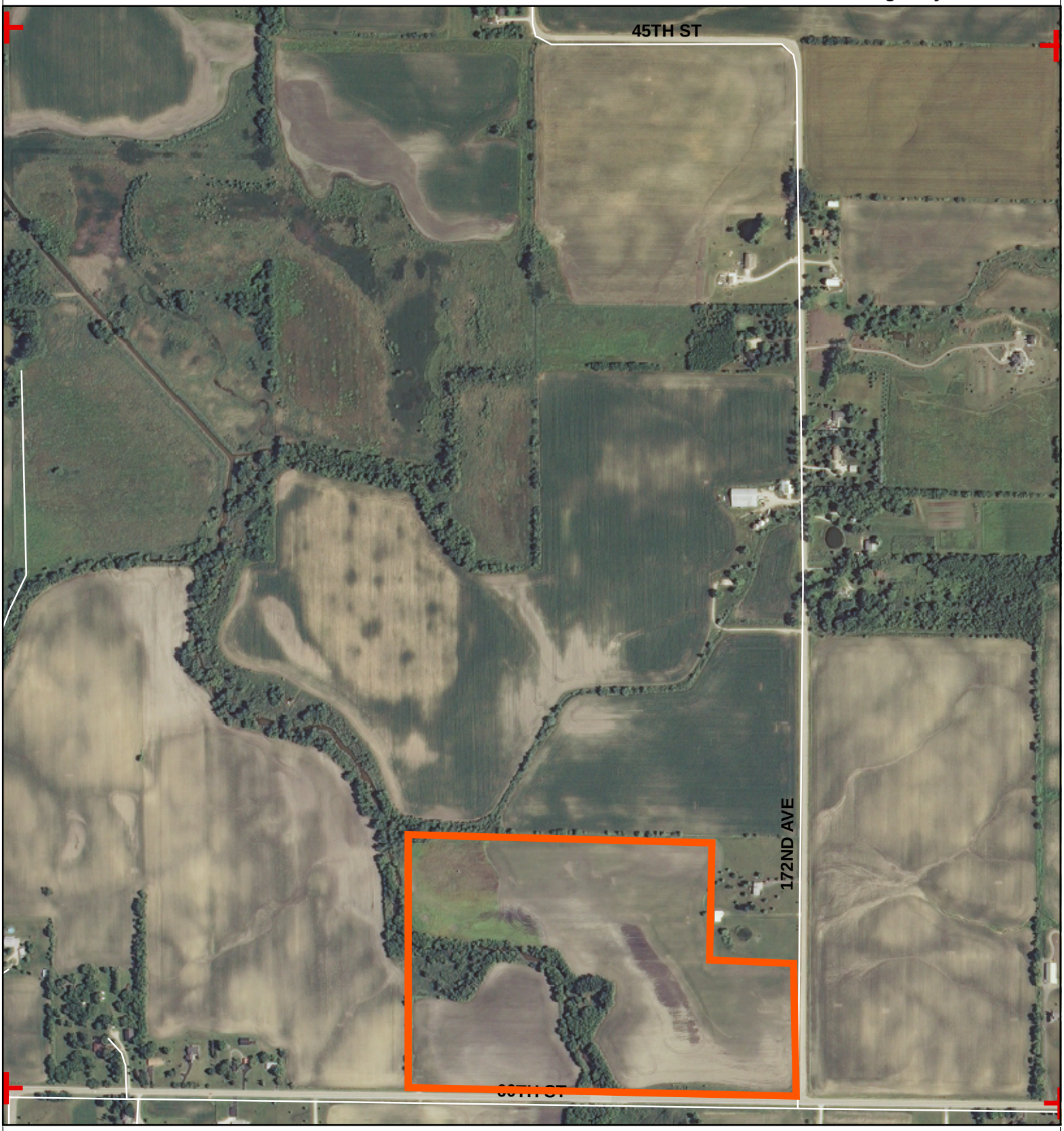
Section 33 T2N R21E
Paris

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Sec-Twn-Rng: 33-2-21E

Kenosha County
2008

Farm Service Agency USDA



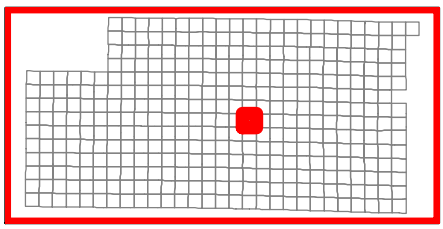
Section Corner

Field Boundary

N

0 250 500 1,000 Feet

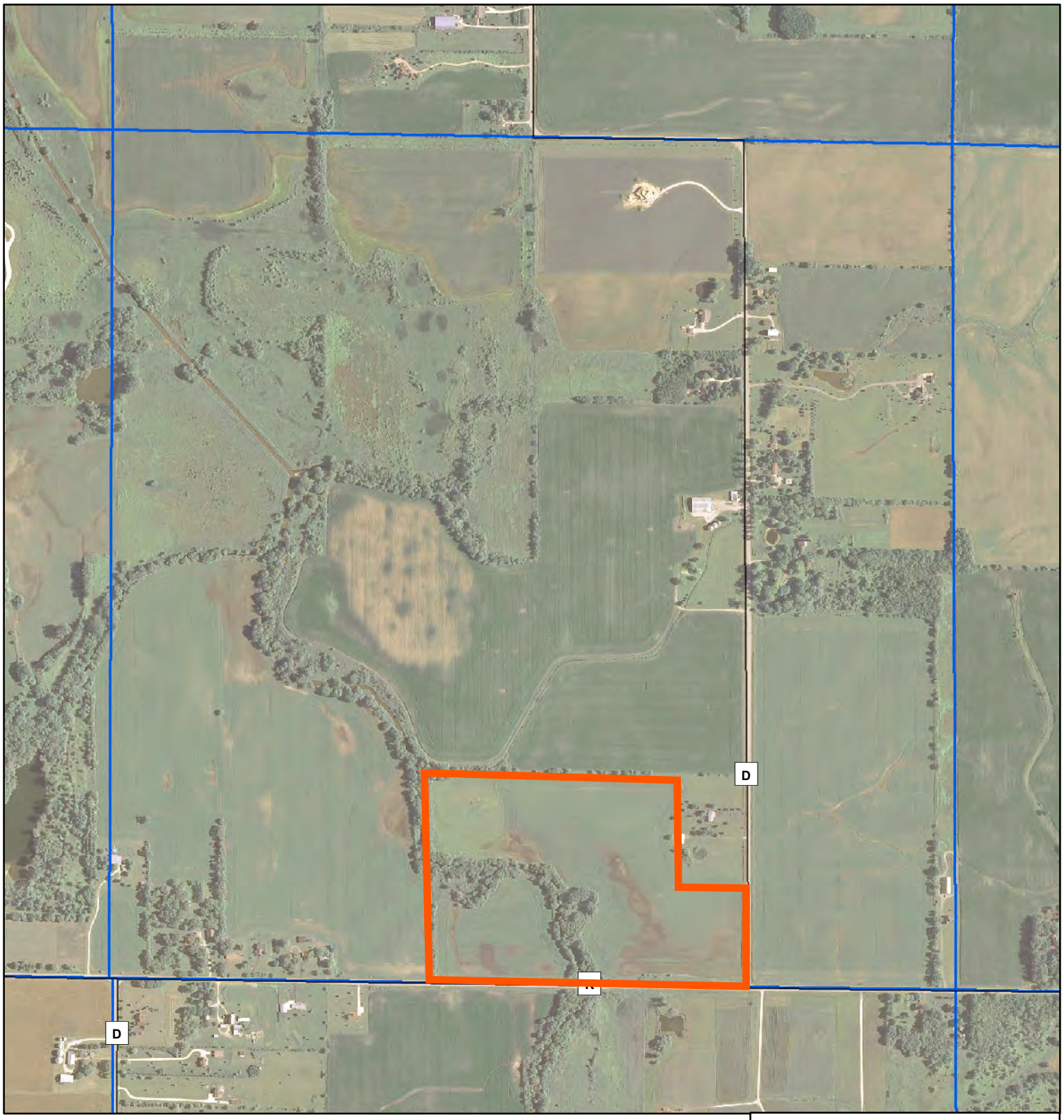
Disclaimer: Map information intended for FSA programs only. FSA does not guarantee the accuracy of this map for other purposes.



October 17, 2008

United States Department of Agriculture

Kenosha County, Wisconsin



T2 R21E S33

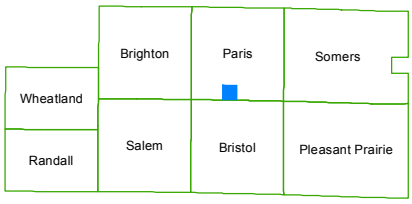
Wheatland

Section Lines

2010 NAIP Ortho Imagery

Scale: 1:10,070

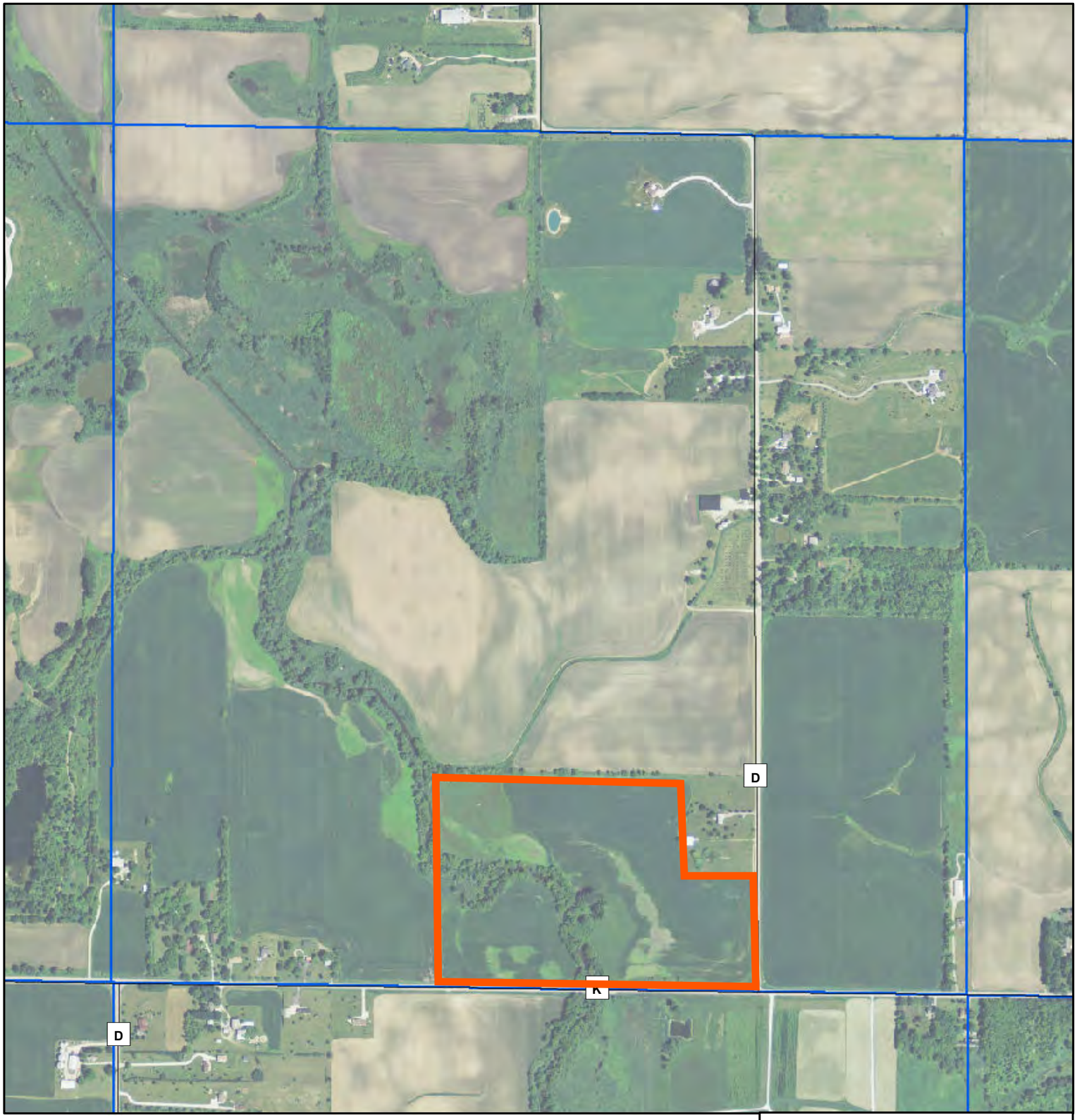
Date: 6/9/2017



USDA FSA maps are for FSA Program administration only. The producer accepts the data 'as is' and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs.

USDA Farm Service Agency

Kenosha, Wisconsin



T2 R21E S33

Wheatland

Section Lines

2013 NAIP Ortho Imagery

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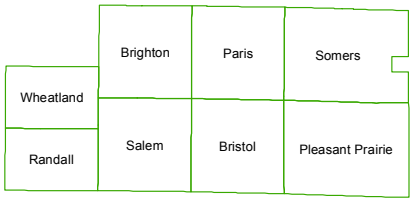
Date: 8/20/2014



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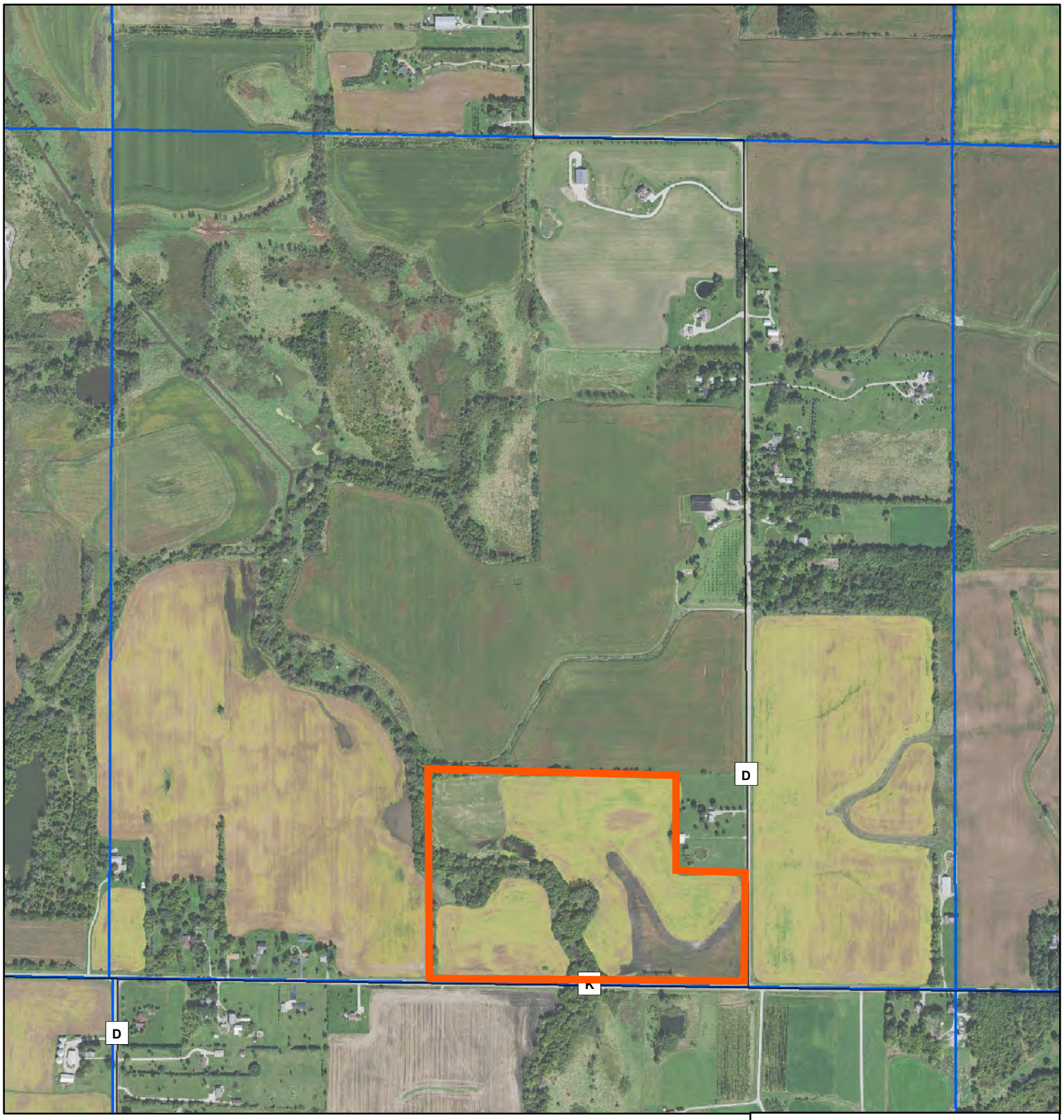
United States Department of Agriculture

Kenosha County, Wisconsin



T2 R21E S33

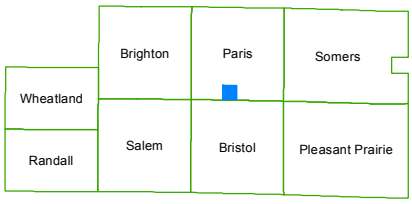
Wheatland

Section Lines

2015 NAIP Ortho Imagery

Scale: 1:10,070

Date: 6/27/2016



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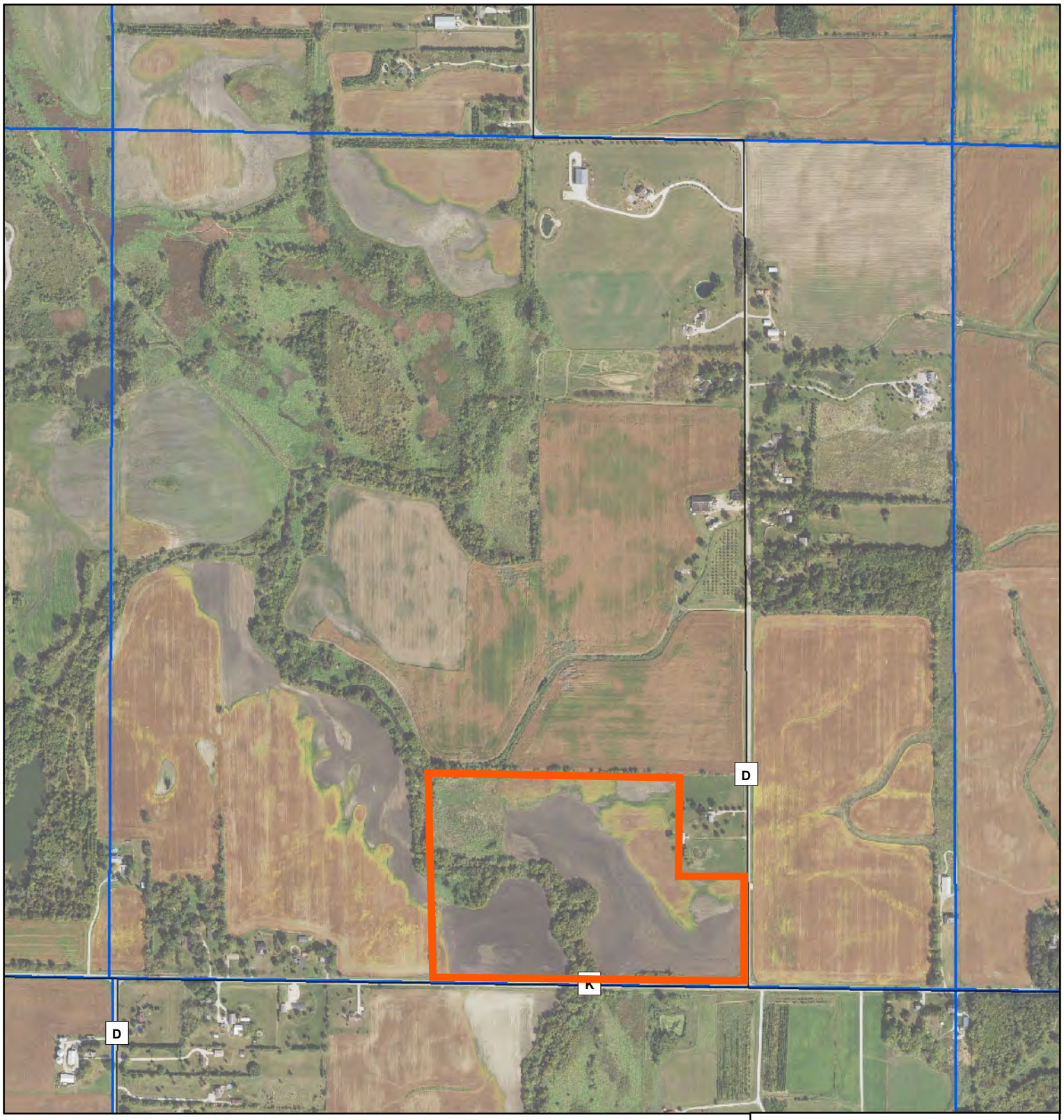
United States Department of Agriculture

Kenosha County, Wisconsin



T2 R21E S33

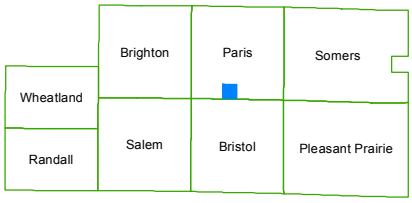
Wheatland

Section Lines

2017 NAIP Ortho Imagery

Scale: 1:10,070

Date: 3/16/2018



USDA FSA maps are for FSA Program administration only. The producer accepts the data 'as is' and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs.

APPENDIX C

PHOTOGRAPHIC LOG

Appendix C: Paris WQT Photographic Log

	01/16/2019; Des Plaines River crossing upstream of Site facing north. Wetland dominated by reed canary grass and narrow-leaved cattail.
	01/16/2019; Des Plaines River crossing upstream of Site facing south. Wetland dominated by reed canary grass, river bulrush, and narrow-leaved cattail.
	01/16/2019; Wetland south of Site, dominated by reed canary grass, sandbar willow and river bulrush.

Appendix C: Paris WQT Photographic Log

	01/16/2019; Des Plaines River crossing downstream of Site facing west. Wetland dominated by reed canary grass and giant reed grass.
	01/16/2019; Des Plaines River crossing downstream of Site facing east. Wetland dominated by reed canary grass.
	01/16/2019; Southeast portion of site-proposed as the Wetland Community. Area contains Juncus spp. reed canary grass and curly dock (all wetland indicator species).

Appendix C: Paris WQT Photographic Log

	01/16/2019; Southeast portion of site-proposed as the Wetland Community. Area contains Juncus spp. reed canary grass, giant reed grass, and curly dock (all wetland indicator species; giant reed grass and reed canary grass are invasive).
	01/16/2019; Existing wetland located along the southern limits of the Site dominated by sandbar willow and reed canary grass.
	01/16/2019; South-central portion of site; crop damage or area not planted in 2018 (sparse corn stalks).

Appendix C: Paris WQT Photographic Log

	01/16/2019; South-central portion of site; crop damage or area not planted in 2018 (sparse corn stalks).
	01/16/2019; Stand of giant reed grass located just south of the Site.
	01/16/2019; North-central portion of site proposed as the Tallgrass Prairie Community.

Appendix C: Paris WQT Photographic Log

	01/16/2019; North-central portion of site facing southwest. Transition from Tallgrass prairie, to Mesic Prairie to Wetland Community proposed in this area.
	01/16/2019; South-central portion of site. Floodplain of the Des Plaines River dominated by reed canary grass.
	01/16/2019; Bank of Des Plaines River numerous honeysuckle and buckthorn present along the river.

Appendix C: Paris WQT Photographic Log

	01/16/2019; Beaver activity observed along the Des Plaines River.
	01/16/2019; Northern limits of site facing east. Area proposed as Tallgrass Prairie Community.
	01/16/2019; Northern limits of site facing southwest. Area proposed as Tallgrass Prairie.

Appendix C: Paris WQT Photographic Log

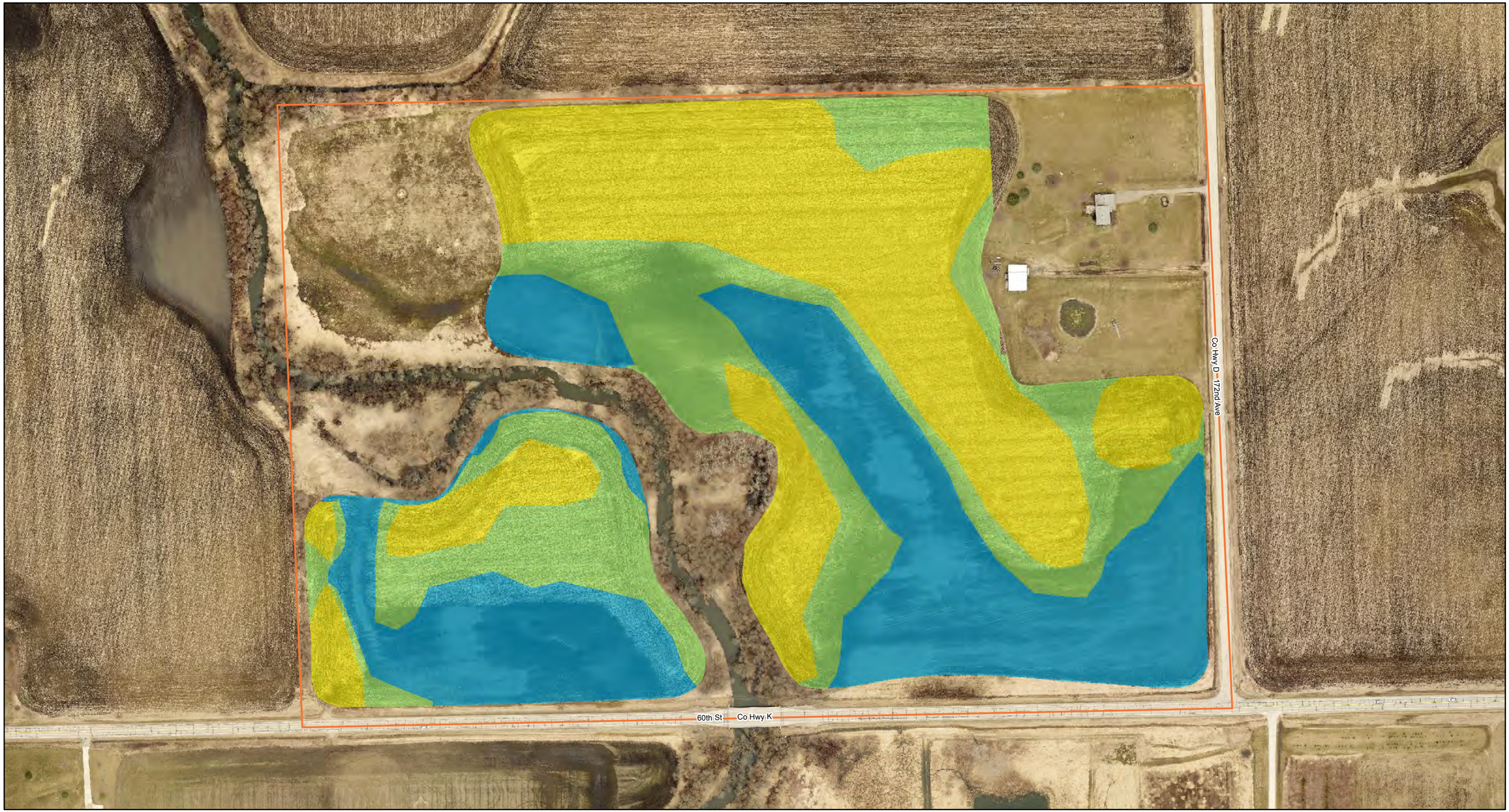
	01/16/2019; Southeast limits of site facing west. Area proposed as Mesic Prairie Community.
	01/16/2019; Southwest portion of site facing north. Note depressional swale heading to river; this are proposed as Wetland Community.
	01/16/2019; Southwest portion of site proposed as Wetland Community.

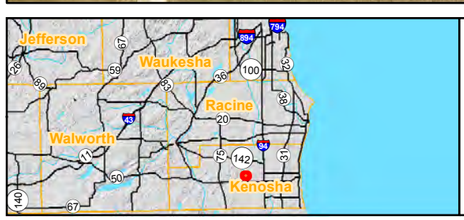
Appendix C: Paris WQT Photographic Log

	01/16/2019; Western portion of Site-wetland adjacent to the proposed Wetland Community dominated by reed canary grass.
	01/16/2019; Western portion of site facing east. Note depression contiguous with existing wetland. Area proposed as Wetland Community.

APPENDIX D

RESTORATION PLAN AND SEED MIXES





Property Boundary

Seed Mix

- Mesic Prairie
- Tallgrass Prairie
- Wetland

Feet
0 200 400

N

EXHIBIT 1

Paris SS - WQT

Seeding Plan

Source:
Kenosha County Imagery, 2015

c42590 3/12/2019 J:\DATA\FO\Env_Strategy\GIS Projects 2018\ParisSS_P_WQT\Seeding_Plan.mxd

TALLGRASS PRAIRIE SEED MIX **(29 Forbs, 9 grasses/sedges/rushes; 38 Total Species)**

Botanical Name	Common Name	Wetland Indicator Status (Midwest Region)
Allium cernuum	Nodding wild onion	FACU
Andropogon gerardii	Big bluestem	FAC
Asclepias syriaca	Common milkweed	FACU
Asclepias tuberosa	Butterfly weed	UPL
Asclepias verticillata	Whorled milkweed	FACU
Bouteloua curtipendula	Side Oats Grama	UPL
Brickellia eupatorioides	False boneset	UPL
Carex bicknellii	Bicknell's sedge	FACU
Coreopsis palmata	Prairie coreopsis	UPL
Dalea candida	White prairie clover	UPL
Dalea purpurea	Purple prairie clover	UPL
Desmodium illinoense	Illinois tick trefoil	FACU
Echinacea pallida	Pale purple coneflower	UPL
Elymus canadensis (cover)	Canada wild rye	FACU
Eupatorium altissimum	Tall boneset	FACU
Geum triflorum	Prairie smoke	FACU
Helianthus occidentalis	Western sunflower	FACU
Heliopsis helianthoides	False sunflower	FACU
Koeleria macrantha	June grass	UPL
Liatris pycnostachya	Prairie blazing star	FAC
Monarda fistulosa	Wild bergamot	FACU
Monarda punctata	Horse mint	UPL
Oligoneuron rigidum	Stiff goldenrod	FACU
Panicum virgatum	Switch grass	FAC
Penstemon digitalis	Beardtongue	FAC
Ratibida pinnata	Yellow coneflower	UPL
Rudbeckia hirta	Black-eyed Susan	FACU
Rudbeckia subtomentosa	Sweet black-eyed susan	FACU
Schizachyrium scoparium	Little bluestem	FACU
Silphium laciniatum	Compass plant	UPL
Solidago speciosa	Showy goldenrod	FACU
Sorghastrum nutans	Indian grass	FACU
Sporobolus heterolepis	Prairie dropseed	FACU
Symphyotrichum laeve	Smooth blue aster	FACU
Tradescantia ohiensis	Spiderwort	FACU
Verbena stricta	Hoary vervain	UPL
Veronicastrum virginicum	Culver's root	FAC
Zizia aurea	Golden alexanders	FAC

MESIC PRAIRIE SEED MIX **(28 Forbs, 12 grasses/sedges/rushes; 40 Total Species)**

Botanical Name	Common Name	Wetland Indicator Status Midwest Region
Allium cernuum	Nodding wild onion	FACU
Andropogon gerardii	Big bluestem	FAC
Anemone canadensis	Meadow/Canada anemone	FACW
Asclepias syriaca	Common milkweed	FACU
Asclepias verticillata	Whorled milkweed	FACU
Aster novae-angliae	New England aster	FAC
Aster punicues	Swamp aster	OBL
Carex bicknellii	Bicknell's sedge	FACU
Carex brevior	Short beak sedge	FAC
Carex stipata	Common fox sedge	OBL
Carex vulpindoia	Brown fox sedge	FACW
Desmodium canadense	Canada tick trefoil	FACU
Desmodium illinoense	Illinois tick trefoil	FACU
Elymus canadensis (cover)	Canada wild rye	FACU
Elymus virginicus	Viriginia wild rye	FACW
Eupatorium altissimum	Tall boneset	FACU
Eutrochium purpureum	Purple joe pye weed	FAC
Helenium autumnale	Sneezeweed	FACW
Heliopsis helianthoides	False sunflower	FACU
Juncus torreyi	Torrey's rush	FACW
Liatris pycnostachya	Prairie blazing star	FAC
Liatris spicata	Marsh blazing star	FAC
Monarda fistulosa	Wild bergamot	FACU
Oligoneuron rigidum	Stiff goldenrod	FACU
Panicum virgatum	Switch grass	FAC
Penstemon digitalis	Beardtongue	FAC
Rudbeckia hirta	Black-eyed Susan	FACU
Rudbeckia subtomentosa	Sweet black-eyed susan	FACU
Schizachyrium scoparium	Little bluestem	FACU
Silphium perfoliatum	Cup plant	FACW
Silphium terebinthinaceum	Prairie dock	FAC
Solidago graminifolia	Grass-leaved goldenrod	FACW
Solidago speciosa	Showy goldenrod	FACU
Sorghastrum nutans	Indian grass	FACU
Spartina pectinata	Prairie cord grass	FACW
Sporobolus heterolepis	Prairie dropseed	FACU
Tradescantia ohiensis	Spiderwort	FACU
Verbena hastata	Blue vervain	FACW
Veronicastrum virginicum	Culver's root	FAC
Zizia aurea	Golden alexanders	FAC

WETLAND SEED MIX **(12 Forbs, 10 grasses/sedges/rushes; 22 Total Species)**

Botanical Name	Common Name	Wetland Indicator Status Midwest Region
Anemone canadensis	Meadow/Canada anemone	FACW
Asclepias incarnata	Marsh milkweed	OBL
Aster novae-angliae	New England aster	FAC
Aster punicues	Swamp aster	OBL
Carex stipata	Common fox sedge	OBL
Carex vulpindoia	Brown fox sedge	FACW
Elymus virginicus	Viriginia wild rye	FACW
Glyceria striata	Fowl manna grass	OBL
Helenium autumnale	Sneezeweed	FACW
Juncus effusus	Soft rush	OBL
Juncus torreyi	Torrey's rush	FACW
Leersia oryzoides	Rice cut grass	OBL
Liatris spicata	Marsh blazing star	FAC
Lobelia siphilitica	Great blue lobelia	OBL
Mimulus ringens	Monkey flower	OBL
Scirpus atrovirens	Dark green bulrush	OBL
Scirpus fluviatilis	River bulrush	OBL
Silphium perfoliatum	Cup plant	FACW
Solidago graminifolia	Grass-leaved goldenrod	FACW
Solidago riddellii	Riddell's goldenrod	OBL
Spartina pectinata	Prairie cord grass	FACW
Verbena hastata	Blue vervain	FACW

APPENDIX J

Water Quality Trading Checklist

State of Wisconsin
Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921
dnr.wi.gov

Water Quality Trading Checklist

Notice: Pursuant to s. 283.84, Wis. Stats., this form must be completed by any WPDES permittee that intends to pursue pollutant trading as a method of complying with a permit limitation. Failure to complete this form would not result in penalties. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Applicant Information

Permittee Name	Permit Number	Facility Site Number
We Energies - Paris Generating Station	WI- 0049131	

Facility Address	City	State	ZIP Code
335 172nd Ave	Union Grove	WI	53182

Project Contact Name (if applicable)	Address	City	State	ZIP Code
Lynn Morrison - Probst Group	17035 W. Wisconsin Ave	Brookfield	WI	53005

Project Name
We Energies PSGS Water Quality Trade

Receiving Water Name	Parameter(s) being traded	HUC 12(s)
Unnamed Tributary	Total Phosphorus	071200040103

Credit Generator Information

Credit generator type (select all that apply):
- ☐ Permitted Discharge (non-MS4CAFO)
- ☐ Permitted MS4
- ☐ Permitted CAFO
- ☐ Urban nonpoint source discharge
- ☒ Agricultural nonpoint source discharge
- ☐ Other - Specify: _____

Are any of the credit generators in a different HUC 12 than the applicant?
- ○ Yes; HUC 12: _____
- ◉ No

Are any of the credit generators downstream of the applicant?
- ◉ Yes
- ○ No

Will a broker/exchange be used to facilitate trade?
- ○ Yes *(include description and contact information in WQT plan)*
- ◉ No

Point to Point Trades (Traditional Municipal / Industrial, MS4, CAFO)

Are each of the point source credit generators identified in this section in compliance with their WDPES permit requirements?
- ○ Yes
- ○ No

Discharge Type	Permit Number	Name	Contact Information	Trade Agreement Number
○ Traditional ○ MS4 ○ CAFO				
○ Traditional ○ MS4 ○ CAFO				
○ Traditional ○ MS4 ○ CAFO				
○ Traditional ○ MS4 ○ CAFO				
○ Traditional ○ MS4 ○ CAFO				

Point to Point Trades (Traditional Municipal / Industrial, MS4, CAFO) *cont.*

Does plan have a narrative that describes:			Plan Section
a. Summary of discharge and existing treatment including optimization	○ Yes	○ No	
b. Amount of credit being generated	○ Yes	○ No	
c. Timeline for credits and agreements	○ Yes	○ No	
d. Method for quantifying credits	○ Yes	○ No	
e. Tracking and verification procedures	○ Yes	○ No	
f. Location of credit generator in proximity to receiving water and credit user	○ Yes	○ No	
g. Other: _____	○ Yes	○ No	

Point to Nonpoint Trades (Non-Permitted Urban, Agricultural, Other)

Discharge Type	Practices Used to Generate Credits	Method of Quantification	Trade Agreement Number	Have the practice(s) been formally registered?
○ Urban NPS ◉ Agricultural NPS ○ Other	Conversion of Ag Land to Permanent Vegetation	SnapPlus V2	TBD	○ Yes ◉ No ○ Only in part
○ Urban NPS ○ Agricultural NPS ○ Other				○ Yes ○ No ○ Only in part
○ Urban NPS ○ Agricultural NPS ○ Other				○ Yes ○ No ○ Only in part
○ Urban NPS ○ Agricultural NPS ○ Other				○ Yes ○ No ○ Only in part
○ Urban NPS ○ Agricultural NPS ○ Other				○ Yes ○ No ○ Only in part
○ Urban NPS ○ Agricultural NPS ○ Other				○ Yes ○ No ○ Only in part
○ Urban NPS ○ Agricultural NPS ○ Other				○ Yes ○ No ○ Only in part
○ Urban NPS ○ Agricultural NPS ○ Other				○ Yes ○ No ○ Only in part

Does plan have a narrative that describes:			Plan Section
a. Description of existing land uses	◉ Yes	○ No	2.1
b. Management practices used to generate credits	◉ Yes	○ No	2.4
c. Amount of credit being generated	◉ Yes	○ No	4
d. Description of applicable trade ratio per agreement/management practice	◉ Yes	○ No	3
e. Location where credits will be generated	◉ Yes	○ No	1.3.2
f. Timeline for credits and agreements	◉ Yes	○ No	6
g. Method for quantifying credits	◉ Yes	○ No	2.3

Does plan have a narrative that describes:			Plan Section
h. Tracking procedures	◉ Yes	○ No	7.2
i. Conditions under which the management practices may be inspected	◉ Yes	○ No	7.3
j. Reporting requirements should the management practice fail	◉ Yes	○ No	7.4
k. Operation and maintenance plan for each management practice	◉ Yes	○ No	Attachment H
l. Location of credit generator in proximity to receiving water and credit user	◉ Yes	○ No	Exhibit B1
m. Practice registration documents, if available	◉ Yes	○ No	Attachment G
n. History of project site(s)	◉ Yes	○ No	Attachment C
o. Other: _____	○ Yes	◉ No	N/A

The preparer certifies all of the following:

- I am familiar with the specifications submitted for this application, and I believe all applicable items in this checklist have been addressed.
- I have completed this document to the best of my knowledge and have not excluded pertinent information.
- I certify that the information in this document is true to the best of my knowledge.

Signature of Preparer	Date Signed
	3/28/2019

Authorized Representative Signature

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision. Based on my inquiry of those persons directly responsible for gathering and entering the information, the information is, to the best of my knowledge and belief, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of Authorized Representative	Date Signed
	3/28/19