

Great Lakes Investors, LLC – Sullivan, WI  
October 25, 2019 – Rev 1

# Water Quality Trading Plan

# TABLE OF CONTENTS

1	Introduction	1
2	Background	1
2.1	Purpose for Water Quality Trade	1
2.2	Location of Outfall and Fields	2
2.2.1	Location of Outfall 002	2
2.2.2	Point of Downstream Determination	2
2.2.3	Location of the Fields	3
2.3	Existing Land Use of the Fields	4
2.4	Soil Sampling	4
2.5	SnapPlus Modeling	5
2.6	Trading Requirements Within a TMDL	6
2.7	Modeled PTP Under Current Conditions	6
2.8	Modeled PTP with Filter Strips Added	7
2.9	Calculation of Change in PTP Based on Modified Land Use	7
3	Trade Ratio Calculation	8
3.1	Individual Trade Ratio Factors	8
3.1.1	Delivery factor:	8
3.1.2	Downstream factor:	8
3.1.3	Equivalency factor:	8
3.1.4	Uncertainty factor:	8
3.1.5	Habitat Adjustment factor:	9
3.2	Calculation of Trade Ratio Based on Individual Factors	9
4	Credit Generation Calculation	9
5	Management Practice Installation	10
5.1	Timeline	10
6	Inspections and Reporting	10
6.1	Water Quality Trading Management Practice Registration	10



# TABLE OF CONTENTS

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6.2	Monthly Certification	10
6.3	Annual Inspections	11
6.4	Notification of Problems with Cover Management Practice	11
6.5	Annual Water Quality Trading Report	11
6.6	WDNR Right to Inspect the Fields	12

## Attachments

- A – Notice of Intent (NOI) to Conduct Water Quality Trading
- B – Watershed, Subwatershed, and Field Maps
- C – Bill Ingersoll Nutrient Management Plan
- D – Soil Sampling Results
- E – SnapPlus Modeling Reports (Current)
- F – SnapPlus Modeling Reports (Filter Strips Added)
- G – Blank “Practice Registration Form” 3400-207



## 1 Introduction

This water quality trading plan is submitted by The Probst Group, LLC (Probst) on behalf of Great Lakes Investors, LLC (GLI) in Sullivan, WI. This plan describes intent to use water quality trading to comply with phosphorus discharge limits in its Wisconsin Discharge Elimination System (WPDES) permit for Outfall 002. To assist in complying with GLI's phosphorus discharge limits, GLI will install and maintain filter strips on agricultural fields within the same subwatershed as Outfall 002 on property owned by Bill Ingersoll.

GLI has used SnapPlus modeling 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 the filter strips. Using a trade ratio of 2:1, GLI calculated the phosphorus water quality trading credits available per year based on the change in management practice from farming the full field to the addition of filter strips at the edge of the field. GLI will use these credits to demonstrate compliance with the total phosphorus limits in their WPDES permit.

## 2 Background

### *2.1 Purpose for Water Quality Trade*

The purpose of this Water Quality Trading Plan is to describe GLI's use of water quality trading to comply with the Total Phosphorus limits on Outfall 002 of WPDES permit WI-0060607. This Water Quality Trading Plan was developed pursuant to the Notice of Intent to Conduct Water Quality Trading included in Attachment A.

In particular, GLI will trade with property owned by Bill Ingersoll in the same HUC-12 subwatershed as Outfall 002. Filter strips will be installed at the edge of the fields and GLI will use the phosphorus credits generated from this management practice to comply with the Total Phosphorus limits their WPDES permit. A Trade Agreement was signed between the credit generator (Bill Ingersoll) and the credit user (GLI).

GLI is within the Rock River Total Maximum Daily Load (TMDL). Monthly average total phosphorus effluent limits in the facility's WPDES permit are included in Table 1 below. However, because the water quality based effluent limits (WQBELs) are more stringent than the mass-based TMDL-derived limits, compliance with the 6-month average limit of 0.075 mg/L and monthly average of 0.225 mg/L will be the focus of this plan.



**Table 1**  
**TMDL-Derived Effluent Phosphorus Limits**

Month	Monthly Avg TP Limit [lbs/day]	Month	Monthly Avg TP Limit [lbs/day]
January	0.37	July	0.39
February	0.67	August	0.35
March	0.56	September	0.31
April	0.52	October	0.23
May	0.45	November	0.19
June	0.52	December	0.23

As discussed in the Final Compliance Alternatives Plan, WWTP staff were able to significantly reduce the effluent TP concentration in the effluent using poly-aluminum chloride (PAC). Based on a pilot test completed at the WWTP using PAC, the facility is confident they can maintain effluent below 0.2 mg/L total phosphorus.

The average yearly design flow rate of the WWTP is 0.035 MGD, but from 2018 through 2019 the observed average flow rate was 0.013 MGD. At current average flows and effluent phosphorus concentration of 0.1 – 0.175 mg/L, GLI will need to offset approximately 1 - 4 lbs/yr of phosphorus. Assuming a Trade Ratio of 2:1, discussed further in Section 3 of this Plan, this equates to 2 – 8 lbs/yr of phosphorus credits. GLI will be able to control the phosphorus concentration of their process wastewater via chemical addition to meet the available annual trade discussed further in Table 6 of Section 4. If flows increase in the future, GLI may consider adding additional fields to generate Trade credits. The facility understands that this will require modification to their WQT Plan and the WPDES permit before additional trade credits can be utilized.

## ***2.2 Location of Outfall and Fields***

### ***2.2.1 Location of Outfall 002***

GLI discharges treated process wastewater to a drainage ditch tributary to Duck Creek through Outfall 002 at approximate latitude of 43.03621°N and longitude of 88.59579°W. Outfall 002 is located in HUC12 Subwatershed 070900020304, which is also known as the Duck Creek Subwatershed. The Duck Creek Subwatershed is part of the larger Bark River Watershed (0709000203), which drains to the Middle Rock Sub-Basin. Figure 1 below depicts the location of Outfall 002 in the Subwatershed. This is also given in Attachment B.

### ***2.2.2 Point of Downstream Determination***

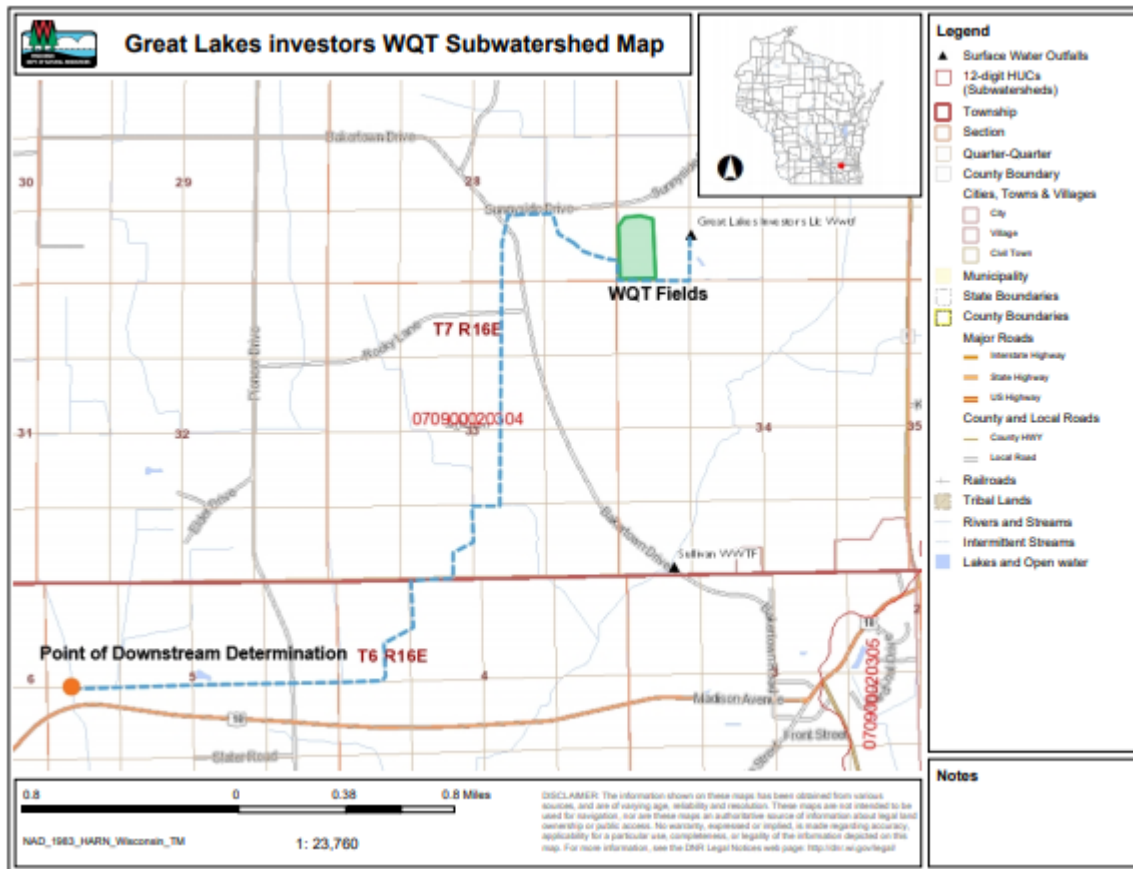
Duck Creek is a limited aquatic life stream until the intersection with Unnamed Stream 09 (WBIC 823600) in Sec 5 T7 R16E. As described in Table 3 of NR 104, Wis. Adm. Code, Duck Creek has a noncontinuous hydrologic classification for this stretch and the

criteria in NR 104.02(3)(a)2., Wis. Adm. Code apply. This includes dissolved oxygen, pH, and toxics. Phosphorus criteria in NR 102.06 do not apply to limited aquatic life waters. WDNR assesses WQBELs based on the criteria for the next stream segment downstream. The downstream waterway for this site is Duck Creek. Therefore, the intersection of Duck Creek and Unnamed Waterway 09 was used as the location to determine whether the water quality trade fields are upstream or downstream of Outfall 002, see Section 4.1.2 below.

### 2.2.3 Location of the Fields

GLI will implement the management practices to generate phosphorus credits on the property of Bill Ingersoll, adjacent to the wastewater treatment plant. The Fields are located in Jefferson County in Sullivan, WI on parcel 006-0716-2733-000 owned by Bill Ingersoll. This parcel is located in SEC 27 TWP 7N R 16E. See Figure 1 below which shows the location of the Outfall, the location used for upstream or downstream determination, and the location of the WQT fields.

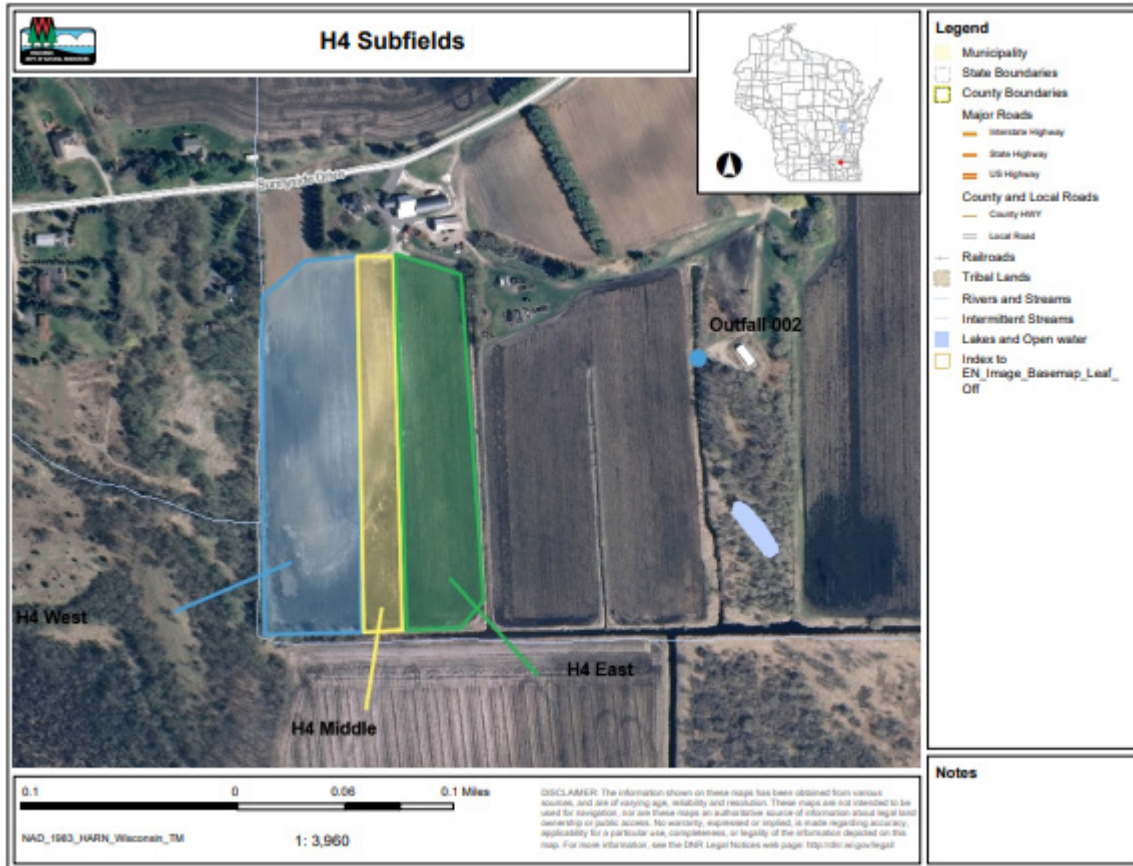
Figure 1  
 Subwatershed Map with Outfall and Fields shown



### 2.3 Existing Land Use of the Fields

The WQT Fields, referred to by the landowner as Field H4 is subdivided into Field H4 West, H4 Middle, and H4 East. Figure 2 below shows the division of the subfields. These fields are operated under a Nutrient Management Plan which is included as Attachment C. There is no drain tile present on the site.

Figure 2  
Field H4 Subfields



### 2.4 Soil Sampling

Soil samples were taken on December 7<sup>th</sup>, 2012 and on April 27, 2017 for the entirety of Field H4. These 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 soil conditions can be found in Attachments E and F. A NRCS soils map of the three subfields is given in Attachment B and soil sample results are given in Attachment D.

### 2.5 SnapPlus Modeling

SnapPlus V2 (version 16.3.16306.1328) was used to model Fields H4 East, Middle, and West under current conditions. Cropping practices and fertilizer applications on each field are shown in Table 2 below.

**Table 2**  
**Historic Cropping, Tilling, and Nutrient Applications**

Year		H4 West	H4 Middle	H4 East
2016	Crop	Pumpkin	Soybeans (7-10" Rows)	Sweet Corn (Middle Plant)
	Tilling	No Till	No Till	No Till
	Nutrient	N/A	N/A	<ul style="list-style-type: none"> <li>• 9-23-30 at 125 lb/ac</li> <li>• 21-0-0 at 75 lb/ac</li> <li>• 10-34-0 at 5 gal/ac</li> <li>• 0-0-61 at 75 lb/ac</li> <li>• 46-0-0 at 75 lb/ac</li> </ul>
2017	Crop	Soybeans (7-10" Rows)	Soybeans (7-10" Rows)	Sweet Corn (Middle Plant)
	Tilling	No Till	No Till	No Till
	Nutrient	<ul style="list-style-type: none"> <li>• 0-0-61 at 175 lb/ac</li> </ul>	<ul style="list-style-type: none"> <li>• 0-0-61 at 175 lb/ac</li> </ul>	<ul style="list-style-type: none"> <li>• 21-0-0 at 75 lb/ac</li> <li>• 10-34-0 at 5 gal/ac</li> <li>• 0-0-61 at 75 lb/ac</li> <li>• 46-0-0 at 125 lb/ac</li> <li>• 46-0-0 at 50 lb/ac</li> </ul>
2018	Crop	Pumpkin	Sweet Corn (Middle Plant)	Sweet Corn (Middle Plant)
	Tilling	No Till	No Till	No Till
	Nutrient	<ul style="list-style-type: none"> <li>• 0-0-61 at 175 lb/ac</li> </ul>	<ul style="list-style-type: none"> <li>• 21-0-0 at 75 lb/ac</li> <li>• 0-0-61 at 75 lb/ac</li> <li>• 46-0-0 at 125 lb/ac</li> </ul>	<ul style="list-style-type: none"> <li>• 21-0-0 at 75 lb/ac</li> <li>• 0-0-61 at 75 lb/ac</li> <li>• 46-0-0 at 125 lb/ac</li> </ul>
2019	Crop	Pumpkin	Sweet Corn (Middle Plant)	Sweet Corn (Middle Plant)
	Tilling	No Till	No Till	No Till
	Nutrient	<ul style="list-style-type: none"> <li>• 21-0-0 at 75 lb/ac</li> <li>• 0-0-61 at 300 lb/ac</li> <li>• 46-0-0 at 100 lb/ac</li> </ul>	<ul style="list-style-type: none"> <li>• 21-0-0 at 75 lb/ac</li> <li>• 0-0-61 at 75 lb/ac</li> <li>• 46-0-0 at 225 lb/ac</li> </ul>	<ul style="list-style-type: none"> <li>• 21-0-0 at 75 lb/ac</li> <li>• 46-0-0 at 125 lb/ac</li> </ul>

The land taken out of production to create the filter strip will no longer need fertilizer to be applied. Because the nutrient application was solely from commercial fertilizer, phosphorus application will not increase elsewhere in the watershed as a result of this trade. There will be a net decrease of phosphorus in the watershed a result of this trade.



## **2.6 Trading Requirements Within a TMDL**

A credit threshold is the pollutant loading below which reductions are made to generate credits. The credit threshold established the amount of pollutant reduction that is necessary before credits may be generated. For agricultural areas addressed by an approved TMDL, the credit threshold is set to reflect the TMDL load allocation (LA).

Agricultural nonpoint source credit generators, like the fields that GLI will use for their water quality trade, that are located in a watershed with an approved TMDL generate two types of credits; interim and long-term credits. Interim credits are generated by load reductions that achieve the credit threshold and, therefore, can be generated only when the current pollutant load exceeds the applicable LA. Long-term credits are generated by load reductions obtained below the LA credit threshold.

The duration of interim credits equals the lifespan of the management practice employed to reduce pollutant loads, or 5 years, whichever is shorter. Once interim credits have expired, the credit user may replace them with new interim credits, which would last another 5 years or life of the management practice, or they may utilize long-term credits.

The nonpoint source baseline in the Rock River Basin is a phosphorus index (PI) of 6. GLI is located in Reach 56 of the Rock River TMDL so a 33% reduction in nonpoint source TP from the baseline load is required, see Appendix H of the 2011 Rock River TMDL. Reductions in nonpoint source load from a PI of 6 to a PI of 4 (33% reduction) would generate interim credits. All reductions below a PI of 4 would be considered long-term credits. The existing P Index for all fields owned by Mr. Ingersoll are less than or equal to 2, so all credits generated at the site will be considered long-term.

## **2.7 Modeled PTP Under Current Conditions**

Attachment E includes the following SnapPlus reports assuming current cropping practices continued into the future:

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

Table 3 summarizes the Potentially Tradeable Phosphorus (PTP) from the P Trade Report using the current crop and application rotation:



**Table 3**  
**SnapPlus Potentially Tradable Phosphorus Report - Current**

	Acres	2020	2021	2022	2023	2024	2025
H4 East	4.9	3.88	3.84	3.79	3.75	3.71	3.67
H4 Middle	2.9	7.51	7.67	12.62	17.19	16.04	12.83
H4 West	7.8	8.90	7.32	6.90	6.65	7.09	8.49
<b>TOTAL</b>	<b>15.6</b>	<b>20.29</b>	<b>18.83</b>	<b>23.32</b>	<b>27.60</b>	<b>26.84</b>	<b>24.98</b>

### ***2.8 Modeled PTP with Filter Strips Added***

The fields were then modeled using projected cropping and nutrient application practices with the addition of filter strips at the edge of the field. The same SnapPlus reports as were done for the current crop rotation are available the addition of the filter strips in Attachment F. Note that the acreage listed is the full acreage of the field. The filter strips will be 30-feet in width and remove a total of 1.5 of the 15.6 acres from production. A map of the filter strip area is provided in Attachment B. Table 4 below summarizes the Potentially Tradable Phosphorus (PTP) given in the P Trade Report for future conditions with filter strips added.

**Table 4**  
**SnapPlus Potentially Tradable Phosphorus Report – Filter Strips Added**

	Acres	2020	2021	2022	2023	2024	2025
H4 East	4.9	3.63	3.59	3.55	3.51	3.47	3.43
H4 Middle	2.9	3.34	3.44	4.45	5.30	5.03	4.26
H4 West	7.8	7.82	6.56	6.20	5.99	6.39	7.42
<b>TOTAL</b>	<b>15.6</b>	<b>14.79</b>	<b>13.59</b>	<b>14.20</b>	<b>14.80</b>	<b>14.89</b>	<b>15.11</b>

### ***2.9 Calculation of Change in PTP Based on Modified Land Use***

Based on the change in land use from cropped agricultural land in corn and soybeans to cropland with the addition of filter strips, total PTP was then calculated. Table 5 is a calculation of the difference of the values in Tables 3 and 4 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 5**  
**Calculated Potentially Tradable Phosphorus – Filter Strips Added**

	Acres	2020	2021	2022	2023	2024	2025
H4 East	4.9	0.25	0.25	0.24	0.24	0.24	0.24
H4 Middle	2.9	4.17	4.23	6.14	5.89	10.05	8.57
H4 West	7.8	1.08	0.76	1.37	2.99	1.72	1.07
<b>TOTAL</b>	<b>15.6</b>	<b>5.50</b>	<b>5.24</b>	<b>7.75</b>	<b>9.13</b>	<b>12.01</b>	<b>9.87</b>



### 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 “Guidance for Implementing Water Quality Trading in WPDES Permits” dated August 21, 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:

$$\text{Trade Ratio} = (\text{Delivery} + \text{Downstream} + \text{Equivalency} + \text{Uncertainty} - \text{Habit Adjustment}):1$$

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 by factor below, GLI’s management practice results in a trade ratio of 2:1.

#### ***3.1 Individual Trade Ratio Factors***

##### **3.1.1 Delivery factor:**

As discussed earlier, the Fields subject to are within the same HUC12, the Duck Creek Subwatershed as GLI Outfall 002. Because the Fields are within the same HUC12 as the Outfall, the delivery factor is not needed (i.e., it is zero). See WQT Guidance at § 2.11.1.

##### **3.1.2 Downstream factor:**

All 15.6 acres of the proposed trade fields are upstream of the point where the discharge joins a waterbody on which phosphorus criteria apply (discussed in Section 2.2.2 above). Because these fields are located upstream of the point of compliance for phosphorus, the downstream factor is not needed (i.e., it is zero).

##### **3.1.3 Equivalency factor:**

The filter strips on the Fields will reduce phosphorus loadings to the subwatershed. GLI is using the phosphorus credits generated by the filter strips to comply with the phosphorus limits on Outfall 002. Because phosphorus reductions are being used to generate phosphorus credits, an equivalency factor is not needed (i.e., it is zero). See WQT Guidance at § 2.11.3.

##### **3.1.4 Uncertainty factor:**

The Fields will include filter strips. According to Table 4 of the WQT Guidance, filter strips installed and maintained consistent with NRCS Technical Standard 393 results in an uncertainty factor of 2 or 3, depending on availability of historic cropping and soils



information. See WQT Guidance at § 2.11.4, Table 4. Because GLI has cropping and soils data for the last several years, an uncertainty factor of 2 was used.

**3.1.5 Habitat Adjustment factor:**

GLI is not claiming any beneficial habitat adjustment, so a habitat adjustment is not needed (i.e., it is zero). 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 2:1:

$$\text{Trade Ratio} = (\text{Delivery} + \text{Downstream} + \text{Equivalency} + \text{Uncertainty} - \text{Habit Adjustment}):1$$

$$\begin{aligned} \text{Trade Ratio} &= (0 + 0 + 0 + 2 - 0):1 \\ &= 2:1 \end{aligned}$$

GLI will use a 2:1 trade ratio for the entire 15.6 acres for estimating credits generated by installation of filter strips.

**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 the filter strips are installed and maintained on the Fields, divided by the credit ratio as shown in the equation below. Table 6 shows the results of this calculation for each field.

$$\text{Phosphorus Credits Per Year} = (\text{PTP Assuming Crops Rotation Continued} - \text{PTP Assuming Filter Strips Added}) \div \text{trade ratio}$$

**Table 6**  
**SnapPlus PTP (lb/acre/year) - (trade ratio of 1.2 applied)**

	Acres	2020	2021	2022	2023	2024	2025
H4 East	4.9	0.13	0.13	0.12	0.12	0.12	0.12
H4 Middle	2.9	2.08	2.12	3.07	2.94	5.03	4.28
H4 West	7.8	0.54	0.38	0.68	1.50	0.86	0.54
<b>TOTAL</b>	<b>15.6</b>	<b>2.75</b>	<b>2.62</b>	<b>3.87</b>	<b>4.57</b>	<b>6.01</b>	<b>4.93</b>

For example, in 2022 for Field H4 Middle:

PTP Assuming Crop Rotation Continues: 10.59 lbs P/yr (from Table 3)

PTP Assuming Filter Strips Installed: 4.45 lbs P/yr (from Table 4)

*Difference: 6.14 lb P/yr (10.59 – 4.45), from Table 5)*  
 Trade ratio: 2:1 (from Section 4.2)  
**PTP including Trade Ratio: 3.07 lbs P/yr (6.14/2)**

## 5 Management Practice Installation

The installation of the filter strips will be coordinated by the farmer, Bill Ingersoll in coordination with his crop consultant Carl Hahn of Insight FS. Jefferson County Land and Water Conservation District and the Natural Resources Conservation Services (NRCS) have been contacted to develop the planting area of the filter strips. Filter strips will measure 30-foot wide, 2,178-feet in length, and will cover a total acreage of 1.5 acres. See Attachment B for a map of Filter Strip Location. Planting of the filter strips will be in accordance with NRCS Technical Standard 393.

### 5.1 Timeline

Date	Action
June 2020	Initial Planting of Filter Strips
July 2020	First inspection (one month after planting)
August 2020	Germination of all seed
August thru Nov 2020	Mowing and herbicide application as needed for weed control
August 2020	Second inspection
October 2020	Filter Strips Established
October 2020	GLI will follow the Operation and Maintenance plan after this date. The Filter Strips will be maintained indefinitely to maintain the water quality trade.

## 6 Inspections and Reporting

### 6.1 Water Quality Trading Management Practice Registration

A blank WDNR Practice Registration Form 3400-207 for Water Quality Trading Management Practice Registration (“Practice Registration Form”) has been included in Attachment G. A completed form will be submitted following planting.

### 6.2 Monthly Certification

Each month, GLI will inspect the Fields generating the phosphorus reduction credits to confirm continued cover of the filter strips. If during these inspections any attention is needed to the filter strips, the issue will be addressed immediately. Any photos taken during these inspections can be used to supplement the annual inspections described further in Section 8.3.

Each month, GLI shall also certify that the filter strips installed to generate phosphorus reduction credits are 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 practice identified in the approved water quality trading plan as the source of phosphorus reduction credits is installed, established and properly maintained.

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

### ***6.3 Annual Inspections***

Once per year, GLI will inspect the Fields generating the phosphorus reduction credits to confirm that the management practice is being appropriately maintained. This annual inspection shall occur between mid-August and mid-September each year and shall include at least one photograph of each of the Fields; one overall site photo, and one close-up photo of a representative area of the field.

### ***6.4 Notification of Problems with Cover Management Practice***

In accordance with the Operation and Maintenance Plan, GLI will notify the regional WDNR wastewater compliance staff verbally within 24 hours of becoming aware that the phosphorus reduction credits used or intended for use by GLI 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 the regional WDNR wastewater compliance staff. Both notifications will include the nature of the noncompliance, a description of how the issues will be addressed, and an appropriate timeline to address the issues. GLI shall work to rectify such problems in accordance with the Operation and Maintenance Plan.

### ***6.5 Annual Water Quality Trading Report***

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

- The number of phosphorus reduction credits (lbs/month) used each month of the previous year to demonstrate compliance;
- Photographs from the annual inspection of the filter strips that generated the phosphorus reduction credits used during the previous years; and
- Identification of noncompliance or failure to implement any terms or conditions WPDES permit WI-0060607 with respect to water quality trading that have not been reported in discharge monitoring reports.

### ***6.6 WDNR Right to Inspect the Fields***

WDNR has the right to inspect the filter strips at any time upon giving reasonable notice to GLI to ensure the management practice is in compliance with the NRCS Technical Standard 393 and the terms of this Plan.

# ATTACHMENT A

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## Notice of Intent (NOI) to Conduct Water Quality Trading





**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 Great Lakes Investors LLC		Permit Number WI- 0060607-08-0		Facility Site Number
Facility Address W1211 Meadowview Drive			City Sullivan	State WI
			ZIP Code 53178	
Project Contact Name (if applicable) Lynn Morrison, Probst Group		Address 17035 W Wisconsin Ave, Suite 120		
		City Brookfield		State WI
				ZIP Code 53005
Project Name Great Lakes Investors Sullivan WQT				
Receiving Water Name Unnamed Trib (WBIC 5035896)		Parameter(s) being traded Total Phosphorus		HUC 12(s) 070900020304

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

**Credit Generator Information**

Credit generator type (select all that apply):  
 Permitted Discharge (non-MS4/CAFO)  Urban nonpoint source discharge  
 Permitted MS4  Agricultural nonpoint source discharge  
 Permitted CAFO  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?
<input type="radio"/> Traditional <input type="radio"/> MS4 <input type="radio"/> CAFO				<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unsure
<input type="radio"/> Traditional <input type="radio"/> MS4 <input type="radio"/> CAFO				<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unsure
<input type="radio"/> Traditional <input type="radio"/> MS4 <input type="radio"/> CAFO				<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unsure
<input type="radio"/> Traditional <input type="radio"/> MS4 <input type="radio"/> CAFO				<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unsure
<input type="radio"/> Traditional <input type="radio"/> MS4 <input type="radio"/> CAFO				<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unsure

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

List the practices that will be used to generate credits:

Installation of 30-foot wide buffer strips on cropped agricultural land to minimize runoff to surface water. A total of 2,178 lineal feet, or 1.5 acres, will be installed on land owned by Bill Ingersoll.

Method for quantifying credits generated:  Monitoring  Modeling, Names: SnapPlusV2 16.3  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 [Signature] Date Signed 10/24/19

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 [Signature] Date Signed 9.26.19

# ATTACHMENT B

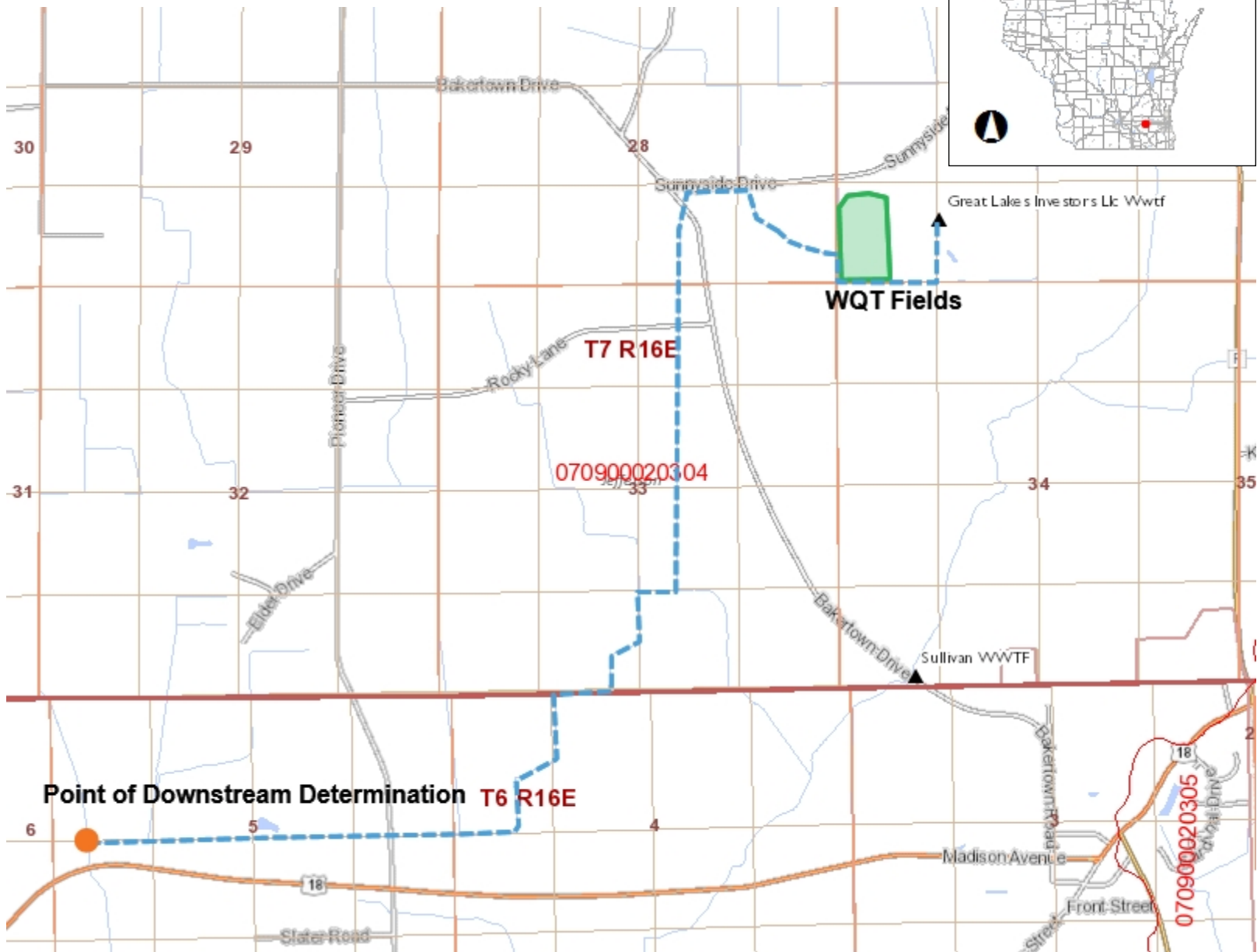
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## Watershed, Subwatershed, and Field Maps

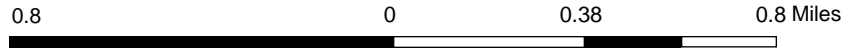




# Great Lakes investors WQT Subwatershed Map



- Legend**
- ▲ Surface Water Outfalls
  - 12-digit HUCs (Subwatersheds)
  - Township
  - Section
  - Quarter-Quarter
  - County Boundary
  - Cities, Towns & Villages
    - City
    - Village
    - Civil Town
  - 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



NAD\_1983\_HARN\_Wisconsin\_TM

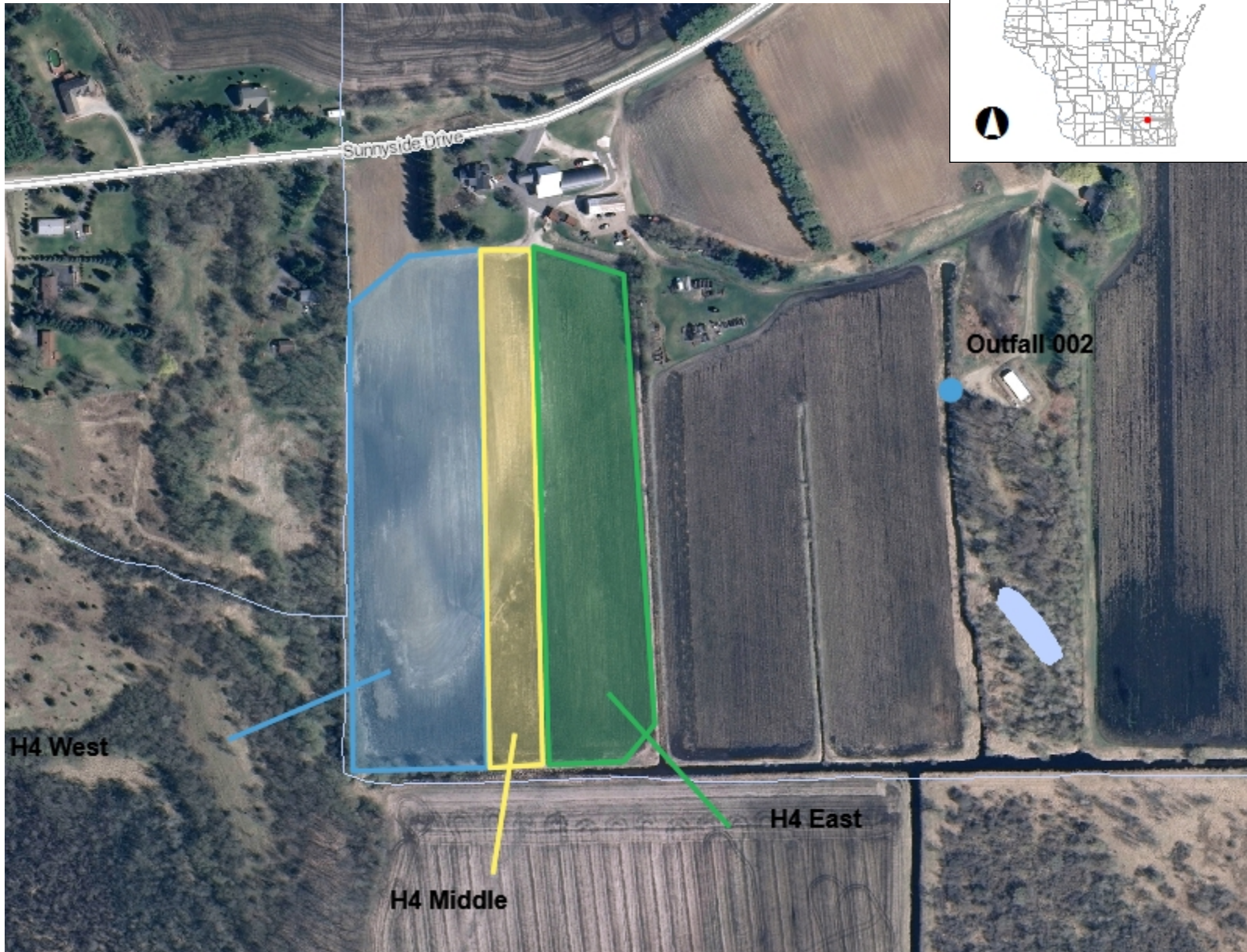
1: 23,760

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## Notes



# H4 Subfields



## Legend

- 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
- Index to EN\_Image\_Basemap\_Leaf\_Off

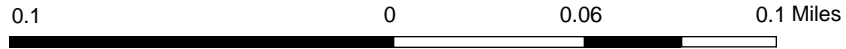
H4 West

H4 Middle

H4 East

Outfall 002

Sunnyside Drive



NAD\_1983\_HARN\_Wisconsin\_TM

1: 3,960

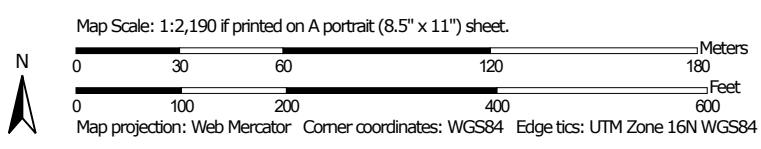
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## Notes

Soil Map—Jefferson County, Wisconsin  
(Field H4 - Great Lakes Investors WQT)



Soil Map may not be valid at this scale.




## 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: Jefferson County, Wisconsin

Survey Area Data: Version 18, Sep 14, 2019

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

Date(s) aerial images were photographed: Data not available.

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.

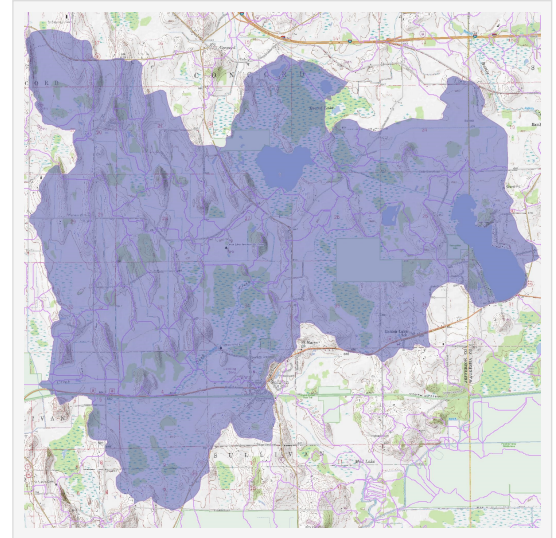
## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ad	Adrian muck, 0 to 2 percent slopes	6.9	33.6%
CaC2	Casco loam, 6 to 12 percent slopes, eroded	6.4	31.0%
FoC2	Fox loam, 6 to 12 percent slopes, eroded	0.8	4.0%
Ht	Houghton muck, 0 to 2 percent slopes	5.2	25.2%
MmA	Matherton silt loam, 0 to 3 percent slopes	0.1	0.7%
Pa	Palms muck, 0 to 2 percent slopes	0.9	4.2%
WmA	Wasepi sandy loam, 0 to 3 percent slopes	0.3	1.3%
<b>Totals for Area of Interest</b>		<b>20.5</b>	<b>100.0%</b>

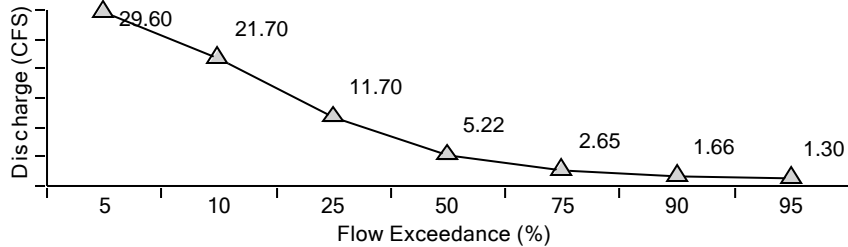


# PRESTO-Lite Watershed Delineation Report

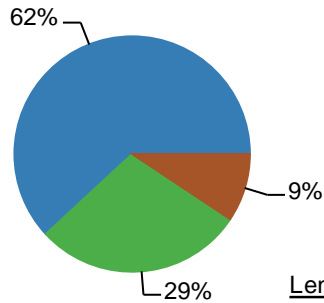
Reach ID: 200023261
Watershed Name: Duck Creek
Waterbody Name: Duck Creek
HUC08: Middle Rock
Watershed Area: 18.1 mi <sup>2</sup>
Average Annual Precipitation: 33.50in



## Stream Flow

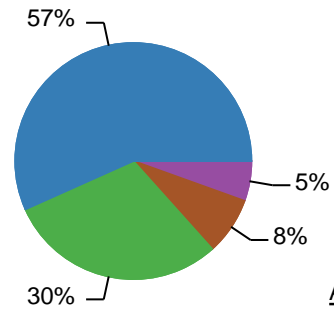


## Tributary Stream Type



Type	Length
Warm Headwater	28352 ft
Macroinvertebrates	13187 ft
Cold Headwater	4275 ft
Coldwater	0 ft
Cool-Cold Headwater	0 ft
Cool-Cold Mainstem	0 ft
Cold Mainstem	0 ft
Large River	0 ft
Warm Mainstem	0 ft

## Landcover



Type	Area
Agriculture	9.85 mi <sup>2</sup>
Wetland	5.2 mi <sup>2</sup>
Forest	1.37 mi <sup>2</sup>
Urban	0.95 mi <sup>2</sup>
Grassland	0.04 mi <sup>2</sup>
Barren	0 mi <sup>2</sup>

## PRESTO Phosphorus Load Estimate

Avg. Annual Nonpoint Phosphorous Load (80% Confidence Interval)	6,747 (2,610 - 17,437) lbs
Number of Facilities (Individual Facility Information below)	2
Avg. Annual Point-source Phosphorous Load (2010 - 2012 total of all facilities)	604lbs
Most Likely Point : Nonpoint Phosphorous Ratio	8% : 92%
Low Estimate Point : Nonpoint Phosphorous Ratio (Adaptive Management)	3% : 97%

## Adaptive Management Results

Facilities Discharging to the Duck Creek Watershed:

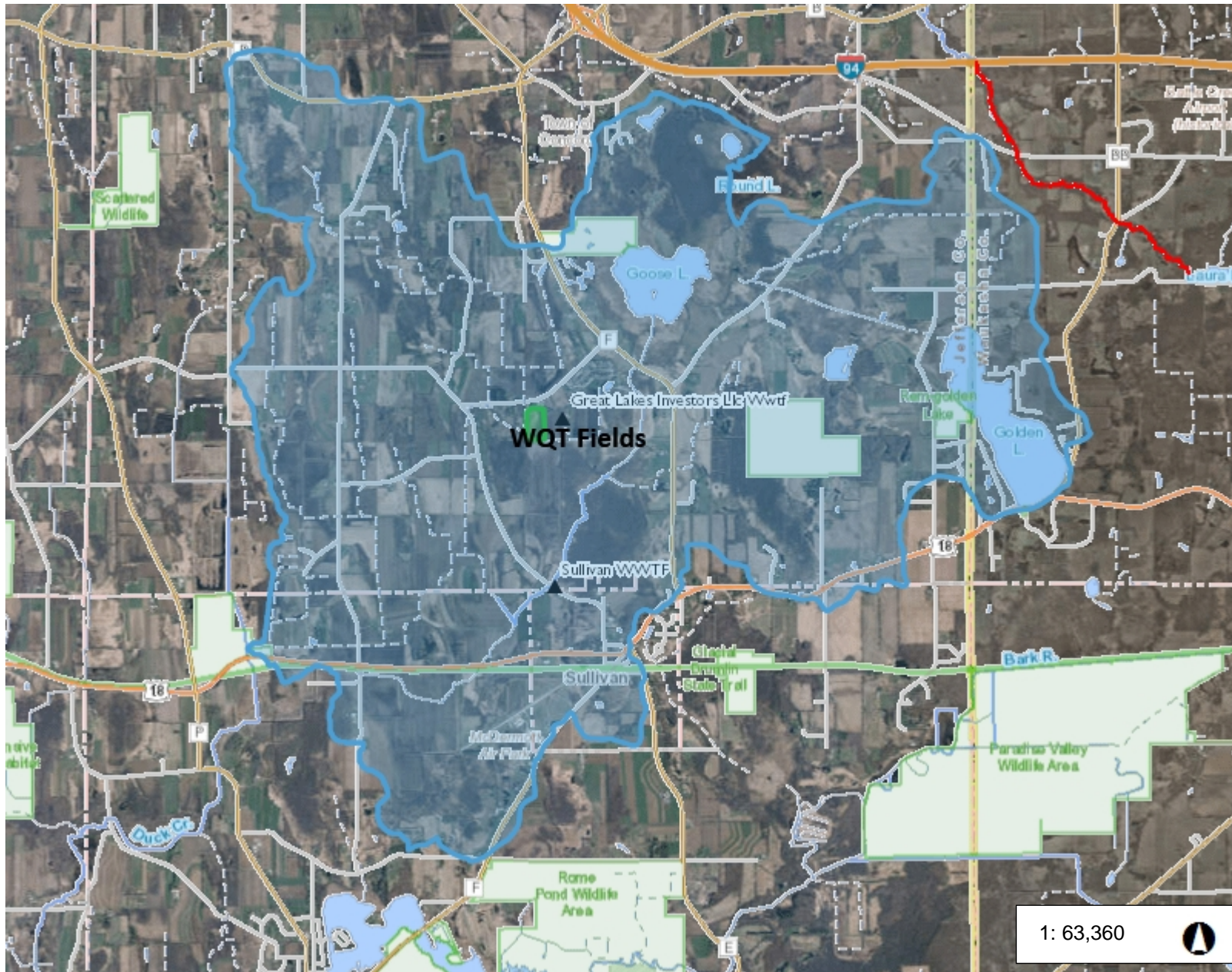
Facility Name	Permit #	Outfall #	Waste Type	Receiving Water	Avg. Phosphorus Load (lbs.) (2010 - 2012)
SULLIVAN WASTEWATER TREATMENT FACILITY	0025585	001	Municipal	Duck Creek	553
GREAT LAKES INVESTORS LLC WWTF	0060607	002	Municipal	Unnamed	51

## 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](mailto:DNRWATERQUALITYMODELING@wisconsin.gov)



# Great Lakes Investors Upstream Map



- Legend**
- ▲ Surface Water Outfalls
  - Impaired Rivers and Streams
  - Impaired Lakes

1: 63,360 



NAD\_1983\_HARN\_Wisconsin\_TM  
© Latitude Geographics Group Ltd.

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**Notes**



Filter Strip  
2,178 lineal feet  
30 foot width  
1.5 acres

Great Lakes  
Investors, LLC  
Wastewater  
Treatment Facility

# ATTACHMENT C

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## Ingersoll Nutrient Management Plan





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222 East Puerner Street, Jefferson WI (920)-674-7000 Ext. 1012

---

# Bill Ingersoll

## 2019 Nutrient Management Plan

W1291 Sunnyside Rd, Sullivan, WI 53178



*Provided By:*  
Carl Hahn, CCA, TSP  
Nutrient Management Specialist  
Insight FS  
PO Box 359  
Jefferson, WI 53549  
(920) 342-0732  
(920) 674-1012



Wisconsin Department of Agriculture, Trade and Consumer Protection  
 Division of Agricultural Resource Management  
 Bureau of Land and Water Resources  
 PO Box 8911, Madison WI 53708-8911, Phone: 608-224-4605

Use this form to check nutrient management (NM) plans for compliance with the WI NRCS 2015-590 Standard.

# Nutrient Management Checklist Wis. Stat. §92.05(3) (k), Wis. Admin. Code §ATCP50.04(3) and Ch. 51

COUNTY Jefferson		DATE PLAN SUBMITTED 3/15/2019		GROWING SEASON YEAR PLAN IS WRITTEN FOR 2019 (from harvest to harvest)	
TOWNSHIP: [T. 7 N.]		RANGE: (R. 16 E., W).		CHECK ONE: <input type="checkbox"/> Initial Plan or <input checked="" type="checkbox"/> Updated Plan	
NAME OF FARM OPERATOR RECEIVING NM PLAN Bill Ingersoll			FARM NAME (OPTIONAL)		BUSINESS PHONE ( ) -
STREET ADDRESS W1291 Sunnyside Rd			CITY Sullivan	STATE WI	ZIP 53178
REASON THE PLAN WAS DEVELOPED: <b>DATCP-FP or cost share (cs)</b> (Ordinance, NR 243 WPDES or NOD, DATCP-FP or cost share (cs), DNR-cs, USDA cs, Other)					CROPLAND ACRES (OWNED & RENTED) 74.1
RENTED FARM(S) LANDOWNER NAME(S) AND ACREAGE: add sheet(s) if needed B&B Trust: 74.1 acres					
WAS THE PLAN WRITTEN IN SNAPPLUS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			If yes, which software version, if known?		18.1
CHECK PLANNER'S QUALIFICATION: <b>2. ASA-CCA</b> (1. NAICC-CPC, 2. ASA-CCA, 3. SSSA-Soil Scientist, 4. DATCP approved training course, 5. Other approved by DATCP)					
NAME OF QUALIFIED NUTRIENT MANAGEMENT PLANNER Carl Hahn				BUSINESS PHONE (920) 674 - 1012	
STREET ADDRESS 222 E Puerner St			CITY Jefferson	STATE WI	ZIP 53549

Use header sections to add comments. Mark NA in the shaded sections if no manure is applied.

1. Does the plan include the following nutrient application requirements to protect surface and groundwater? Yes	Yes	No	NA
<i>This section applies to fields and pastures. If no manure is applied, check NA for 1.c., 1.h., 1.i., 1.n., 1.o., 1.q., 1.s.</i>			
a. Determine field nutrient levels from soil samples analyzed by a DATCP certified laboratory.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. For fields or pastures with mechanical nutrient applications, determine field nutrient levels from soil samples collected within the last 4 years according to 590 Standard (590) and UWEX Pub. A2809, <i>Nutrient Application Guidelines for Field, Vegetable, and Fruit Crops in Wisconsin</i> (A2809) typically collecting 1 sample per 5 acres of 10 cores. Soil tests are not required on pastures that do not receive mechanical applications of nutrients if either of the following applies: 1. The pasture average stocking rate is one animal unit per acre or less at all times during the grazing season. 2. The pasture is winter grazed or stocked at an average stocking rate of more than one animal unit per acre during the grazing season, and a nutrient management plan for the pasture complies with 590 using an assumed soil test phosphorus level of 150 PPM and organic matter content of 6%.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. For livestock siting permit approval, collect and analyze soil samples meeting the requirements above in 1. b., excluding pastures, within 12 months of approval and revise the nutrient management plan accordingly. Until then, either option below maybe used: 1. Assume soil test phosphorus levels are greater than 100 ppm soil test P. OR 2. Use preliminary estimates analyzed by a certified DATCP laboratory with soil samples representing > 5 ac/sample.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Identify all fields' name, boundary, acres, and location.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Use the field's previous year's legume credit and/or applications, predominant soil series, and realistic yield goals to determine the crop's nutrient application rates consistent with A2809 for ALL forms of N, P, and K.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Make no winter applications of N and P fertilizer, except on grass pastures and winter grains.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Document method used to determine application rates. Nutrients shall not runoff during or immediately after application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Identify in the plan that adequate acreage is available for manure produced and/or applied.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Apply a single phosphorus (P) assessment using either the P Index or soil test P management strategy to all fields within a tract when fields receive manure or organic by-products during the crop rotation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Use complete crop rotations and the field's critical soil series to determine that sheet and rill erosion estimates will not exceed tolerable soil loss (T) rates on fields that receive nutrients.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Use contours; reduce tillage; adjust the crop rotation; or implement other practices to prevent ephemeral erosion; and maintain perennial vegetative cover to prevent reoccurring gullies in areas of concentrated flow.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Make no nutrient applications within 8' of irrigation wells or where vegetation is not removed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Make no nutrient applications within 50' of all direct conduits to groundwater, unless directly deposited by gleaning/pasturing animals or applied as starter fertilizer to corn.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



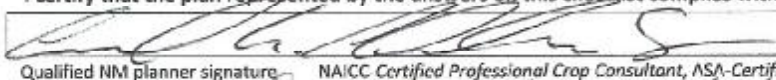
	Yes	No	NA
n. Make no untreated manure applications to areas within 1000' of a community potable water well or within 100' of a non-community potable water well (ex. church, school, restaurant) unless manure is treated to substantially eliminate pathogens.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o. Make no manure applications to areas locally delineated by the Land Conservation Committee or in a conservation plan as areas contributing runoff to direct conduits to groundwater unless manure is substantially buried within 24 hours of application.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
p. Make no applications of late summer or fall commercial N fertilizer to the following areas UNLESS needed for establishment of fall seeded crops OR to meet A2809 with a blended commercial fertilizer. Commercial fertilizer N applications shall not exceed 36 lbs. N/acre on: <ul style="list-style-type: none"> <li>Sites vulnerable to N leaching PRW Soils (P=high permeability, R= bedrock &lt; 20 inches, or W= wet &lt; 12 inches to apparent water table);</li> <li>Soils with depths of 5 feet or less to bedrock;</li> <li>Area within 1,000 feet of a community potable water well.</li> </ul> On P soils, when commercial N is applied for full season crops in spring and summer, follow A2809 and apply one of the following: <ol style="list-style-type: none"> <li>A split or delayed N application to apply a majority of crop N requirement after crop establishment.</li> <li>Use a nitrification inhibitor with ammonium forms of N.</li> <li>Use slow and controlled release fertilizers for a majority of the crop N requirement applied near the time of planting.</li> </ol>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Limit manure applications in late summer or fall using the lesser of A2809 or the following 590 rates on PRW Soils. Use ≤ 120 lbs. available N/acre on: P and R soils on all crops, except annual crops. Additionally, manure with ≤ 4% dry matter (DM) wait until after soil temp. < 50°F or Oct. 1, and use either a nitrification inhibitor OR surface apply and do not incorporate for at least 3 days. W soils or combo. W soils on all crops. Additionally, manure with ≤ 4% DM on all crops use at least one of the following: <ol style="list-style-type: none"> <li>Use a nitrification inhibitor;</li> <li>Apply on an established cover crop, an overwintering annual, or perennial crop;</li> <li>Establish a cover crop within 14 days of application;</li> <li>Surface apply &amp; don't incorporate for at least 3 days;</li> <li>Wait until after soil temp. &lt; 50°F or Oct. 1.</li> </ol> Use ≤ 90 lbs. available N/acre on: P and R soils on annual crops wait until after soil temp. < 50°F or Oct. 1. Additionally, manure with ≤ 4% DM use either a nitrification inhibitor OR surface apply and do not incorporate for at least 3 days. W soils or combination W soils receiving manure with ≤ 4% DM on all crops.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
r. Use at least one of the following practices on non-frozen soils for all nutrient applications within Surface Water Quality Management Area (SWQMA) = 1000' of lakes/ponds or 300' of rivers: <ol style="list-style-type: none"> <li>Maintain &gt; 30% cover after nutrient application;</li> <li>Effective incorporation within 72 hours of application;</li> <li>Establish crops prior to, at, or promptly following application;</li> <li>Install/maintain vegetative buffers or filter strips;</li> <li>Have at least 3 consecutive years no-till for applications to fields with &lt; 30% residue (silage) and apply nutrients within 7 days of planting.</li> </ol>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. Limit mechanical applications to 12,000 gals/acre of unincorporated liquid manure or organic by-products with 11% or less dry matter where subsurface drainage is present OR within SWQMA. Wait a minimum of 7 days between sequential applications AND use one or more of the practice options on non-frozen soils listed in 1.r.1. through 1.r.5.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

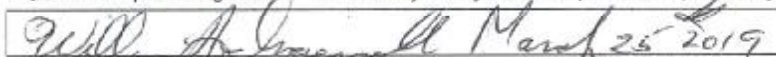
2. When frozen or snow-covered soils prevent effective incorporation, does the plan follow these requirements for winter applications of all mechanically applied manure or organic by-products? *This section doesn't apply to winter grazing/pasturing meeting 590 N and P requirements.*  
N/A

If no manure is applied, check NA for 2.a. through 2.g.

	Yes	No	NA
a. Identify manure quantities planned to be spread during the winter, or the amount of manure generated in 14 days, whichever is greater. For daily haul systems, assume 1/3 of the manure produced annually will need to be winter applied.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Identify manure storage capacity for each type applied and stacking capacity for manure ≥ 16% DM if permanent storage does not exist.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Show on map and make no applications within the SWQMA.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Show on map and make no surface applications of liquid manure during February and March where Silurian dolomite is within 60 inches of the soils surface OR where DNR Well Compensation funds provided replacement water supplies for wells contaminated with livestock manure.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Show on map and make no applications of manure within 300 feet of direct conduits to groundwater.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Do not exceed the P removal of the following growing season's crop when applying manure. Liquid manure applications are limited to 7,000 g/acre. All winter manure applications are not to exceed 60 lbs. of P2O5/acre.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Make no applications of manure to fields with concentrated flow channels unless using two of the following: <ol style="list-style-type: none"> <li>Contour buffer strips or contour strip cropping;</li> <li>Leave all crop residue and no fall tillage;</li> <li>Apply manure in intermittent strips on no more than 50% of field;</li> <li>Apply manure on no more than 25% of the field waiting a minimum of 14 days between applications;</li> <li>Reduce manure app. rate to 3,500 gal. or 30 lbs. P2O5, whichever is less;</li> <li>No manure application within 200 feet of all concentrated flow channels;</li> <li>Fall tillage is on the contour and slopes are lower than 6%.</li> </ol> Make no applications to slopes greater than 6% (soil map units with C, D, E, and F slopes) unless the plan documents that no other accessible fields are available for winter spreading AND two of the options 2.g.1. through 2.g.5. are used.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

I certify that the plan represented by the answers on this checklist complies with Wisconsin's NRCS 2015-590 NM Standard or is otherwise noted.


3/15/19  
 Qualified NM planner signature      NAIACC Certified Professional Crop Consultant, NSA-Certified Crop Adviser, or SSSA-Soil Scientist      Date


March 25 2019  
 Qualified NM farmer-planner or Authorized farm operator signature      Date      Signature if reviewed for quality assurance      Date

receiving and understanding the plan

Crop Year 2019

This is an update for the Bill Ingersoll farm located in northeastern Jefferson County, WI. The farm consists of 74.1 acres that are farmed by Bill. (Note: Acres determined by Insight FS, USDA acres should be used for program compliance.)

This farm grows a variety of crops including sweet corn, pumpkins, squash, and soybeans. Fertilizer applications are determined by previous crop, soil test, fertilizer prices, and A2809 standards. The table below summarizes all of this information. Potash and MAP are bulk applied. 10-34-0 is applied with the corn planter at the rate of 5 gallons/acre. General tillage on this farm is no till.

Field	Previous Crop/Crop	Nitrogen	MAP	Potash
H2	Sg/Sg	0	0	0
H3 East	Sg/Sg	0	0	0
H3 West	Sg/Sg	0	0	150 lbs
H4 East	SC/SC	75 lbs AMS 125 lbs Urea	0	0
H4 Middle	SC/SC	75 lbs AMS 225 lbs Urea	0	125 lbs
H4 West	P/P	75 lbs AMS 100 lbs Urea	0	300 lbs
H5	SC/SC	75 lbs AMS 125 lbs Urea	0	125 lbs
H6	SC/SC	75 lbs AMS 125 lbs Urea	0	50 lbs
H7	SC/SC	75 lbs AMS 125 lbs Urea	0	150 lbs

(SC: Sweet Corn, P: Pumpkins, Sg: Soybeans)

The Snap Plus model was used for soil erosion estimates and P-index values and both values were below the maximum allowable amount. All fields currently meet A2100 standards for soil sampling.

H5 had over applications of commercial fertilizer last year. It is important that the rates suggested in the plan are not exceeded as the recommended fertilizer rates are the maximum allowable amounts.

H4 East, Middle, and West, H5, H6, and H7 all have Fall Nitrogen Restrictions. Every field except H5 and H7 has Winter Spreading Restrictions for Slope. Every field except H4 West are within a SWQMA. Please see Restriction Maps for all Restrictions and Marked Wells.

**Ingersoll**

Farm: Ingersoll Farms, V18 Generated:3/15/2019, Crop year: 2019, Township Range Section:7N 16E s27



### NM3: Field Data and 590 Assessment Plan

<b>Reported For</b>	<b>Ingersoll Farms</b>	
<b>Printed</b>	2019-03-15	
<b>Plan Completion/Update Date</b>	2019-03-15	
<b>SnapPlus Version</b>	18.1 built on 2019-01-15	
<b>C:\Users\chahn\OneDrive - GROWMARK &amp; FS\MySnapPlusData\Ingersoll Farms.snapDb</b>		

**Prepared for:**  
 Ingersoll Farms  
 attn: Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Prepared by:** Insight FS  
 213 E Puerner St  
 Jefferson, 53549  
 920-674-1012, 920-342-0732,  
[chahn@insightfs.com](mailto:chahn@insightfs.com)

### Field Data: 74 Total Acres Reported.

Field Name	Sub Farm	FSA Trct	FSA Fld	Acres	County	Critical Soil Series & Symbol	F. Slip %	F. Slip 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 P205 Bal lb/ac	P205 Bal Target lb/ac
H2	Home			2.3	Jefferson	CASCO CaC2	9	150	0 - 2	301 - 1000	No/No	No	No	Sg7-Sg7-Sg7	NT-NT-NT-NT-NT	2018-2022	2	1.2	0.3	2	158	-200	-50
H3 East	Home			5.1	Jefferson	FOX FoC2	4	50	0 - 2	301 - 1000	No/No	No	No	Sg7-Sg7-Sg7	NT-NT-NT-NT-NT	2018-2022	3	0.6	0.4	2	185	-200	-50
H3 West	Home			1.8	Jefferson	FOX FoC2	5	85	0 - 2	301 - 1000	No/No	No	No	Sg7-Sg7-Sg7	NT-NT-NT-NT-NT	2018-2022	3	0.7	0.4	1	116	-200	-50
H4 East	Home			4.9	Jefferson	ADRIAN Ad	1	250	0 - 2	301 - 1000	No/No	No	No	SCm-SCm-SCm-SCm	NT-NT-NT-NT-NT	2018-2022	1	0	0.9	1	129	-125	-31
H4 Middle	Home			2.9	Jefferson	CASCO CaC2	6	88	0 - 2	301 - 1000	No/No	No	No	SCm-SCm-SCm-PU-Sg7	NT-NT-NT-NT-NT	2018-2022	2	0.6	0.5	2	117	-165	-41
H4 West	Home			7.8	Jefferson	CASCO CaC2	3	64	0 - 2	1001 - 5000	No/No	No	No	PU-PU-Sg7-PU	NT-NT-NT-NT-NT	2018-2022	2	0.6	0.3	2	119	-230	-58

Field Name	Sub Farm	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 P205 Bal lb/ac	P205 Bal Target lb/ac
H5	Home			13.7	Jefferson	ADRIAN Ad	1	250	0 - 2	301 - 1000	No/No	No	No	SCe-SCe-Sce-Sg7-SCe	NT-NT-NT-NT-NT	2018-2022	1	0	0.6	1	84	-140	0
H6	Home			16.7	Jefferson	ADRIAN Ad	1	250	0 - 2	301 - 1000	No/No	No	No	SCI-SCI-SCI-SCI-SCI	NT-NT-NT-NT-NT	2018-2022	1	0	0.9	1	110	-125	-31
H7	Home			18.9	Jefferson	HOUGH TON Ht	1	250	0 - 2	301 - 1000	No/No	No	No	SCm-SCm-SCm-SCm-SCm	NT-NT-NT-NT-NT	2018-2022	2	0	0.9	1	81	-125	0

Crop Abbreviations	
Abbreviation	Crop
PU	Pumpkin
SCe	Sweet Corn early plant (before May 20)
SCI	Sweet Corn late plant (June 10 or Later)
SCm	Sweet Corn middle plant (May 20 - June 10)
Sg7	Soybeans 7-10 inch row

Tillage Abbreviations	
Abbreviation	Tillage
NT	No Till

### NM5: Spreading and Nutrient Management Sorted By Crop Report

<b>Crop Year</b>	<b>2019</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	2019-03-15
<b>Plan Completion/Update Date</b>	2019-03-15
<b>SnapPlus Version</b>	18.1 built on 2019-01-15
C:\Users\chahn\OneDrive - GROWMARK & FSI\MySnapPlusData\Ingersoll Farms.snapDb	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

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 213 E Puermer St  
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Soybean Fields			Crop Removal				Soil Test		Adjusted Recs lb/ac			Planned Applications and Credits lb/ac			Over(+)/ Under(-) Adj. UW Recs lb/ac			Applications						
Name	Field Ac.	Soil Map Symbol (pred) & N Res	Prior Crop	2019 Crop	Yield Goal	P205	K20	Tillage	Avg P	Avg K	N	P205	K20	N	P205	K20	N	P205	K20	Product Name and Analysis	Rate and Method	N-P205-K20 credit	App Acres and Time	Total Amt
H2	2.3	FoC2	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	40	70	NT	158	116	0	0	0	0	0	0	0	0	0				2.3	
H3 East	5.1	FsA	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	40	70	NT	185	112	0	0	0	0	0	0	0	0	0				5.1	
H3 West	1.8	FsA	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	40	70	NT	116	70	0	0	86	0	0	0	0	0	0	Potassium chloride 0-0-61	150 lb Spring Unincorp	0-0-92	1.8 Entire field	270 lb

9.2 planned Soybean acres

270 planned lb Potassium chloride

SnapPlus Spreading and Nutrient Management Sorted By Crop Report

		Other Crops Fields					Crop Removal			Soil Test		Adjusted Recs lb/ac			Planned Applications and Credits lb/ac			Over (+) Under (-) Adj. UW Recs lb/ac		Applications				
Name	Field Ac.	Soil Map Symbol (pred) & NRes	Prior Crop	2019 Crop	Yield Goal	P205	K20	Tillage	Avg P	Avg K	N	P205	K20	N	P205	K20	N	P205	K20	Product Name and Analysis	Rate and Method	N-P205-K20 credit	App Acres and Time	Total Amt
H4 East	4.9	Ht W	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	25	40	NT	129	138	70	0	0	73	0	0	3	0	0	Urea 46-0-0	125 lb Spring Unincorp	58-0-0	4.9 Entire field	612 lb
																				Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	4.9 Entire field	368 lb
H4 Middle	2.9	CaC2 W	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	25	40	NT	117	123	110	0	77	119	0	76	9	0	-1	Urea 46-0-0	225 lb Spring Unincorp	104-0-0	2.9 Entire field	652 lb
																				Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	2.9 Entire field	218 lb
H4 West	7.8	Ad W	Pumpkin	Pumpkin	15-20	50	110	NT	119	91	60	0	180	62	0	183	2	0	3	Potassium chloride 0-0-61	125 lb Spring Unincorp	0-0-76	2.9 Entire field	362 lb
																				Potassium chloride 0-0-61	300 lb Spring Unincorp	0-0-183	7.8 Entire field	2340 lb
																				Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	7.8 Entire field	585 lb
																				Urea 46-0-0	100 lb Spring Unincorp	46-0-0	7.8 Entire field	780 lb
H5	13.7	Ht W	Sweet Corn early plant (before May 20)	Sweet Corn early plant (before May 20)	6.1-8	25	40	NT	84	74	70	0	77	73	0	76	3	0	-1	Potassium chloride 0-0-61	125 lb Spring Unincorp	0-0-76	13.7 Entire field	1712 lb
																				Urea 46-0-0	125 lb Spring Unincorp	58-0-0	13.7 Entire field	1712 lb
																				Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	13.7 Entire field	1028 lb

Other Crops Fields				Crop Removal				Soil Test			Adjusted Recs lb/ac			Planned Applications and Credits lb/ac			Over(+/-) Under(-) Adj. UW Recs lb/ac			Applications				
Name	Field Ac.	Soil Map Symbol (pred) & N Res	Prior Crop	2019 Crop	Yield Goal	P205	K20	Tillage	Avg P	Avg K	Avg N	P205	K20	N	P205	K20	N	P205	K20	Product Name and Analysis	Rate and Method	N-P205-K20 credit	App Acres and Time	Total Amt
H6	16.7	Ht W	Sweet Corn late plant (June10 or Later)	Sweet Corn late plant (June10 or Later)	6.1-8	25	40	NT	110	89	70	0	28	73	0	31	3	0	3	Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	16.7 Entire field	1252 lb
																				Urea 46-0-0	125 lb Spring Unincorp	58-0-0	16.7 Entire field	2088 lb
																				Potassium chloride 0-0-61	50 lb Spring Unincorp	0-0-31	16.7 Entire field	835 lb
H7	18.9	Ht W	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	25	40	NT	81	64	70	0	80	73	0	92	3	0	12	Urea 46-0-0	125 lb Spring Unincorp	58-0-0	18.9 Entire field	2362 lb
																				Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	18.9 Entire field	1418 lb
																				Potassium chloride 0-0-61	150 lb Spring Unincorp	0-0-92	18.9 Entire field	2835 lb

64.9 planned Other Crops acres

4,868 planned lb Ammonium sulfate (AMS)

8,085 planned lb Potassium chloride

8,208 planned lb Urea

**74 total planned acres**

Total Manure Volume	Manure App Plan	Remaining Manure
0 tons	0	0
0 gals	0	0

4,868 planned lb Ammonium sulfate (AMS)

8,355 planned lb Potassium chloride

8,208 planned lb Urea



**Tillage Abbreviations**

Abbreviation	Tillage
NT	No Till

**NM5: Spreading and Nutrient Management Sorted By Crop Report**

<b>Crop Year</b>	<b>2018</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	2019-03-15
<b>Plan Completion/Update Date</b>	2019-03-15
<b>SnapPlus Version</b>	18.1 built on 2019-01-15
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

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Soybean Fields			Crop Removal				Soil Test		Adjusted Recs lb/ac		Planned Applications and Credits lb/ac		Over(+)/ Under(-) Adj. UW Recs lb/ac		Applications						
Name	Field Ac.	Soil Map Symbol (pred) & NRes	Prior Crop	2018 Crop	Yield Goal	P205	K20	Tillage	Avg P	Avg K	N	P205	K20	N	P205	K20	Product Name and Analysis	Rate and Method	N-P205-K20 credit	App Acres and Time	Total Amt
H2	2.3	FoC2	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	40	70	NT	158	116	0	0	33	0	0	107	Potassium chloride 0-0-61	175 lb Spring Unincorp	0-0-107	2.3 Entire field	402 lb
H3 East	5.1	FsA	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	40	70	NT	185	112	0	0	33	0	0	107	Potassium chloride 0-0-61	175 lb Spring Unincorp	0-0-107	5.1 Entire field	892 lb
H3 West	1.8	FsA	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	40	70	NT	116	70	0	0	93	0	0	107	Potassium chloride 0-0-61	175 lb Spring Unincorp	0-0-107	1.8 Entire field	315 lb

9.2 planned Soybean acres      1,610 planned lb Potassium chloride

SnapPlus Spreading and Nutrient Management Sorted By Crop Report

Other Crops Fields										Crop Removal			Soil Test			Adjusted Recs lb/ac			Planned Applications and Credits lb/ac			Over(+/-) Under(-) Adj. UW Recs lb/ac			Applications			
Name	Field Ac.	Soil Map Symbol (pred) & N Res	Prior Crop	2018 Crop	Yield Goal	P205	K20	Tillage	Avg P	Avg K	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	Product Name and Analysis	Rate and Method	N-P205-K20 credit	App Acres and Time	Total Amt
H4 East	4.9	Ht W	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	25	40	NT	129	138	70	0	0	0	73	0	46	3	0	46	3	0	46	Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	4.9 Entire field	368 lb
H4 Middle	2.9	CaC2 W	Soybeans 7-10 inch row	Sweet Corn middle plant (May 20 - June 10)	6.1-8	25	40	NT	117	123	110	0	43	93	0	46	-17	0	3	0	0	3	0	Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	2.9 Entire field	218 lb
H4 West	7.8	Ad W	Soybeans 7-10 inch row	Pumpkin	15-20	50	110	NT	119	91	60	0	108	20	0	107	-40	0	-1	0	0	0	0	Potassium chloride 0-0-61	175 lb Spring Unincorp	0-0-107	7.8 Entire field	1365 lb
H5	13.7	Ht W	Soybeans 7-10 inch row	Sweet Corn early plant (before May 20)	6.1-8	25	40	NT	84	74	70	0	43	82	0	46	12	0	3	0	0	3	0	Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	13.7 Entire field	1028 lb
																								Potassium chloride 0-0-61	75 lb Spring Unincorp	0-0-46	13.7 Entire field	1028 lb
																								Urea 46-0-0	100 lb Spring Unincorp	46-0-0	13.7 Entire field	1370 lb

SnapPlus Spreading and Nutrient Management Sorted By Crop Report

Other Crops Fields										Crop Removal				Soil Test		Adjusted Recs lb/ac			Planned Applications and Credits lb/ac			Over(+/-) Under(-) Adj. UW Recs lb/ac			Applications				
Name	Field Ac.	Soil Map Symbol (pred) & NRes	Prior Crop	2018 Crop	Yield Goal	P205	K20	Tillage	Avg P	Avg K	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	Product Name and Analysis	Rate and Method	N-P205-K20 credit	App Acres and Time	Total Amt	
H5																													
H6	16.7	Ht W	Sweet Corn late plant (June10 or Later)	Sweet Corn late plant (June10 or Later)	6.1-8	25	40	NT	110	89	70	0	34	62	0	46	-8	0	12					legume		20-0-0			
																								Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	16.7	Entire field	1252 lb
																								Potassium chloride 0-0-61	75 lb Spring Unincorp	0-0-46	16.7	Entire field	1252 lb
																								Urea 46-0-0	100 lb Spring Unincorp	46-0-0	16.7	Entire field	1670 lb
H7	18.9	Ht W	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	25	40	NT	81	64	70	0	80	62	0	46	-8	0	-34					Ammonium sulfate (AMS) 21-0-0	75 lb Spring Unincorp	16-0-0	18.9	Entire field	1418 lb
																								Potassium chloride 0-0-61	75 lb Spring Unincorp	0-0-46	18.9	Entire field	1418 lb
																								Urea 46-0-0	100 lb Spring Unincorp	46-0-0	18.9	Entire field	1890 lb

64.9 planned Other Crops acres

4,282 planned lb Ammonium sulfate (AMS)

5,648 planned lb Potassium chloride

5,905 planned lb Urea

74 total planned acres

Total Manure Volume	Manure App Plan	Remaining Manure
0 tons	0	0
0 gals	0	0

4,282 planned lb Ammonium sulfate (AMS)

7,258 planned lb Potassium chloride

5,905 planned lb Urea

<b>Tillage Abbreviations</b>	
Abbreviation	Tillage
NT	No Till

## FM6: Soil Test Report

<b>Reported For</b>	<b>Ingersoll Farms</b>
Printed	2019-03-15
Plan Completion/Update Date	2019-03-15
SnapPlus Version	18.1 built on 2019-01-15
C:\Users\chahn\OneDrive - GROWMARK & FS\MySnapPlusData\Ingersoll Farms.snapDb	

**Prepared for:**

Ingersoll Farms  
 attn: Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Prepared by:** Insight FS

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Field Name	Subfarm	Acres	Predominant		Soil Test Date	Soil Test Lab	Lab Number	Samples		OM%	pH	in ppm			
			Soil Map Symbol	Soil Name				Rec. #	Actual #			P	K	S	CEC
H2	Home	2.3	FoC2	FOX	2017-04-27	ROCK RIVER LAB	199777	1	2	1.6	5.9	158	116	0	7
H3 East	Home	5.1	FsA	FOX	2017-04-27	ROCK RIVER LAB	199777	1	1	0.9	6.5	185	112	0	5
H3 West	Home	1.8	FsA	FOX	2017-04-27	ROCK RIVER LAB	199777	1	1	0.5	6.8	116	70	0	4
H4 East	Home	4.9	Ht	HOUGHTON	2017-04-27	ROCK RIVER LAB	199777	1	2	24.4	5.8	129	138	0	46
H4 Middle	Home	2.9	CaC2	CASCO	2017-04-27	ROCK RIVER LAB	199777	1	2	13.1	5.3	117	123	0	27
H4 West	Home	7.8	Ad	ADRIAN	2017-04-27	ROCK RIVER LAB	199777	2	2	17.3	5.9	119	91	0	37
H5	Home	13.7	Ht	HOUGHTON	2017-04-27	ROCK RIVER LAB	199777	3	4	44.1	6.0	84	74	0	102
H6	Home	16.7	Ht	HOUGHTON	2017-04-27	ROCK RIVER LAB	199777	3	4	44.1	5.1	110	89	0	69
H7	Home	18.9	Ht	HOUGHTON	2017-04-27	ROCK RIVER LAB	199777	4	4	45.4	5.5	81	64	0	69

**Crop Year Soil Test Needed**

Field Name	Soil Test Date	2017	2018	2019	2020	2021	2022
H2	2017-04-27					X	
H3 East	2017-04-27					X	

Field Name	Soil Test Date	2017	2018	2019	2020	2021	2022
H3 West	2017-04-27					X	
H4 East	2017-04-27					X	
H4 Middle	2017-04-27					X	
H4 West	2017-04-27					X	
H5	2017-04-27					X	
H6	2017-04-27					X	
H7	2017-04-27					X	

# Restrictions

Farm: Ingersoll Farms, V18 Generated:3/15/2019, Crop year: 2019, Township Range Section:7N 16E s27







# Restrictions

Farm: Ingersoll Farms, V18 Generated:3/15/2019, Crop year: 2019, Township Range Section:7N 16E s27

- Local Prohibitions
- Feb/Mar liquid manure prohibited areas
- Winter restrictions Slope > 6%
- 590 SWQMA 300FT
- SWQMA 1000FT
- SWQMA 1000FT Dismissed
- Bedrock depth <5ft
- Channelized Flow 200ft Buffer
- Direct Conduit to GW 300ft
- Well compensation
- Shallow Silurian (0-5 ft to bedrock)
- Perennial Streams
- Intermittent Streams
- Waterbodies
- Counties
- Roads
- P - High Permeability
- R - Bedrock <20"
- W - Wet <12" to Watertable
- Areas contributing runoff to direct conduits to groundwater
- Winter manure prohibited areas
- Nutrient prohibited areas (buffers vary by feature)
- Nutrient prohibited areas (drawn manure prohibited areas)
- Silurian Bedrock 0-2 ft
- Silurian Bedrock 2-5 ft
- Silurian Bedrock 5-20 ft (5-16 ft in Door County)
- 0-2 ft
- 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
- Municipal wells
- County Defined Karst Features
- Fields
- Drinking Well
- Public well
- Irrigation well
- Sinkhole
- Non-metallic mine
- Fractured bedrock at surface
- Other direct conduit
- Tile outlet

# ATTACHMENT D

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## Soil Sampling Results



## FM6: Soil Test Report

<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
<b>W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms.snapDb</b>	

**Prepared for:**

Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

Field Name	Subfarm	Acres	Predominant		Soil Test Date	Soil Test Lab	Lab #	Samples		Smpl ID	pH	BpH	OM %	in ppm			
			Soil Map Symbol	Soil Name				Rec. #	Actual #					P	K	S	CEC
H4 East	Home	4.9	Ht	HOUGHTON	2017-04-27	ROCK RIVER LAB	199777	1	2		5.8		24.4	129	138	0	46
H4 East					2017-04-27					15	6.5	6.7	9.3	105	122	0	29
H4 East					2017-04-27					16	5.1	5.6	39.4	153	155	0	63
H4 East	Home	4.9	Ht	HOUGHTON	2012-12-07	ROCK RIVER LAB	153174	1	4		5.8		17.2	102	92	0	0
H4 East					2012-12-07					12	5.4	6.4	22.8	143	154	0	0
H4 East					2012-12-07					13	4.7	6.2	39.4	134	139	0	0
H4 East					2012-12-07					14	7.3	0	4.5	98	81	0	0
H4 East					2012-12-07					15	5.7	6.6	2.1	75	55	0	0
H4 Middle	Home	2.9	CaC2	CASCO	2017-04-27	ROCK RIVER LAB	199777	1	2		5.3		13.1	117	123	0	27
H4 Middle					2017-04-27					17	5.1	5.9	24.9	126	140	0	48
H4 Middle					2017-04-27					18	5.5	6.6	1.2	109	107	0	5
H4 Middle	Home	2.9	CaC2	CASCO	2012-12-07	ROCK RIVER LAB	153174	1	4		5.8		17.2	102	92	0	0
H4 Middle					2012-12-07					12	5.4	6.4	22.8	143	154	0	0
H4 Middle					2012-12-07					13	4.7	6.2	39.4	134	139	0	0
H4 Middle					2012-12-07					14	7.3	0	4.5	98	81	0	0
H4 Middle					2012-12-07					15	5.7	6.6	2.1	75	55	0	0
H4 West	Home	7.8	Ad	ADRIAN	2017-04-27	ROCK RIVER LAB	199777	2	2		5.9		17.3	119	91	0	37
H4 West					2017-04-27					19	6.0	6.7	29.2	126	106	0	63
H4 West					2017-04-27					20	5.7	6.4	5.4	113	77	0	11

Field Name	Subfarm	Acres	Predominant		Soil Test Date	Soil Test Lab	Lab #	Samples		Smpl ID	pH	BpH	OM %	in ppm			
			Soil Map Symbol	Soil Name				Rec. #	Actual #					P	K	S	CEC
H4 West	Home	7.8	Ad	ADRIAN	2012-12-07	ROCK RIVER LAB	153174	2	4		5.8		17.2	102	92	0	0
H4 West					2012-12-07					12	5.4	6.4	22.8	143	154	0	0
H4 West					2012-12-07					13	4.7	6.2	39.4	134	139	0	0
H4 West					2012-12-07					14	7.3	0	4.5	98	81	0	0
H4 West					2012-12-07					15	5.7	6.6	2.1	75	55	0	0



# ATTACHMENT E

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## SnapPlus Modeling Reports (Current)



## NM1: Narrative and Crops Report

Starting Year	2019
Reported For	Ingersoll Farms
Printed	2019-10-25
Plan Completion/Update Date:	2019-03-15
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Current.snapDb	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

Farm has 3 fields totalling 15.6 acres

**Farm Narrative:** See the hard copy of the NMP for the farm narrative.

### Annual Farm Notes:

No Annual Farm Notes

**Spreader Calibration Methods:** Custom applications

### Narrative and Crops:

Field Name	Acres	2019	2020	2021	2022	2023	2024	2025
H4 East	4.9	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre
H4 Middle	2.9	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Pumpkin No Till 15-20 ton/acre	Pumpkin No Till 15-20 ton/acre	Pumpkin No Till 15-20 ton/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre
H4 West	7.8	Pumpkin No Till 15-20 ton/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Pumpkin No Till 15-20 ton/acre	Pumpkin No Till 15-20 ton/acre

**Summary by Crop:**

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

Crops Grouped By Category		2019	2020	2021	2022	2023	2024	2025
Sweet Corn middle plant (May 20 - June 10)	Acres ton	8 56	8 56	5 35	5 35	5 35	5 35	5 35
Pumpkin	Acres ton	8 140		3 53	3 53	3 53	8 140	8 140
Soybeans 7-10 inch row	Acres bu		8 404	8 404	8 404	8 404	3 152	3 152



## FM6: Soil Test Report

<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
<b>W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Current.snapDb</b>	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

Field Name	Subfarm	Acres	Predominant		Soil Test Date	Soil Test Lab	Lab Number	Samples		pH	OM%	in ppm			CEC
			Soil Map Symbol	Soil Name				Rec. #	Actual #			P	K	S	
H4 East	Home	4.9	Ht	HOUGHTON	2017-04-27	ROCK RIVER LAB	199777	1	2	5.8	24.4	129	138	0	46
H4 East	Home	4.9	Ht	HOUGHTON	2012-12-07	ROCK RIVER LAB	153174	1	4	5.8	17.2	102	92	0	0
H4 Middle	Home	2.9	CaC2	CASCO	2017-04-27	ROCK RIVER LAB	199777	1	2	5.3	13.1	117	123	0	27
H4 Middle	Home	2.9	CaC2	CASCO	2012-12-07	ROCK RIVER LAB	153174	1	4	5.8	17.2	102	92	0	0
H4 West	Home	7.8	Ad	ADRIAN	2017-04-27	ROCK RIVER LAB	199777	2	2	5.9	17.3	119	91	0	37
H4 West	Home	7.8	Ad	ADRIAN	2012-12-07	ROCK RIVER LAB	153174	2	4	5.8	17.2	102	92	0	0

### Crop Year Soil Test Needed

Field Name	Soil Test Date	2017	2018	2019	2020	2021	2022	2023
H4 East	2017-04-27					X		
H4 Middle	2017-04-27					X		
H4 West	2017-04-27					X		

## FM2: Application Summary Report

Starting Year	2019
Reported For	Ingersoll Farms
Printed	2019-10-25
Plan Completion/Update Date:	2019-03-15
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Current.snapDb	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

### 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.		2019	2020	2021	2022	2023	2024	2025
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	1,186	703	526	526	526	631	834
	P2O5	0	0	0	0	0	0	0
	K2O	1,648	968	1,474	1,365	1,248	1,920	1,648
Total Crop Removal (lb)	P2O5	585	507	580	580	580	629	629
	K2O	1,170	858	1,061	1,061	1,061	1,257	1,257
Nutrient Balance (Applied - Crop removal, lb)	P2O5	-585	-507	-580	-580	-580	-629	-629
	K2O	478	110	413	304	187	663	391

## NM4: Manure Tracking Report

Starting Year	2020
Reported For	Ingersoll Farms
Printed	2019-10-25
Plan Completion/Update Date:	2019-03-15
SnapPlus Version 18.1 built on 2019-01-15	
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**Prepared for:**  
Ingersoll Farms  
attn:Ingersoll Farms  
W1291 Sunnyside Dr  
Sullivan, 53178

### Annual Manure Production And Use By Source

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

No Rows Found

### Estimated Livestock Manure Production For 2020

No Livestock Found

### Manure Storage For 2020

No Storages Found

### Spreaders For 2020

No Spreaders Found

### NM3: Field Data and 590 Assessment Plan

<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	2019-10-25
<b>Plan Completion/Update Date</b>	2019-03-15
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
<b>W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Current.snapDb</b>	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

#### Field Data: 16 Total Acres Reported.

Field Name	SubF arm	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
H4 East	Home			4.9	Jefferson	ADRIAN Ad	1	250	0 - 2	301 - 1000	No / No	No	No	SCm-SCm-SCm-SCm-SCm-SCm	NT-NT-NT-NT-NT-NT	2019-2024	1	0	0.9	1	129	-150	-38
H4 Middle	Home			2.9	Jefferson	CASCO CaC2	6	88	0 - 2	301 - 1000	No / No	No	No	SCm-SCm-PU-PU-PU-Sg7	NT-NT-NT-NT-NT-NT	2019-2024	2	0.8	0.4	3	117	-240	-60
H4 West	Home			7.8	Jefferson	CASCO CaC2	3	64	0 - 2	1001 - 5000	No / No	No	No	PU-Sg7-Sg7-Sg7-PU	NT-NT-NT-NT-NT-NT	2019-2024	2	0.5	0.3	2	119	-260	-65

Abbreviation	Crop
PU	Pumpkin
SCm	Sweet Corn middle plant (May 20 - June 10)
Sg7	Soybeans 7-10 inch row

Abbreviation	Tillage
NT	No Till

## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2020</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	0	73	0	0	3	0	0
H4 Middle	2.9	CASCO CaC2 W	117	123	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	110	0	41	119	0	46	9	0	5
H4 West	7.8	ADRIAN Ad W	119	91	Pumpkin	Soybeans 7-10 inch row	46-55	No Till	0	0	97	0	0	107	0	0	10

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2021</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	8	73	0	46	3	0	38
H4 Middle	2.9	CASCO CaC2 W	117	123	Sweet Corn middle plant (May 20 - June 10)	Pumpkin	15-20	No Till	60	0	175	58	0	183	-2	0	8
H4 West	7.8	ADRIAN Ad W	119	91	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	No Till	0	0	90	0	0	92	0	0	2

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2022</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
<b>W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Current.snapDb</b>	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	0	73	0	0	3	0	0
H4 Middle	2.9	CASCO CaC2 W	117	123	Pumpkin	Pumpkin	15-20	No Till	60	0	172	58	0	183	-2	0	11
H4 West	7.8	ADRIAN Ad W	119	91	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	No Till	0	0	98	0	0	107	0	0	9

### 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

<b>Crop Year</b>	<b>2023</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	2	73	0	0	3	0	-2
H4 Middle	2.9	CASCO CaC2 W	117	123	Pumpkin	Pumpkin	15-20	No Till	60	0	169	58	0	183	-2	0	14
H4 West	7.8	ADRIAN Ad W	119	91	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	No Till	0	0	91	0	0	92	0	0	1

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2024</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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	2023 Crop	2024 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	20	73	0	46	3	0	26
H4 Middle	2.9	CASCO CaC2 W	117	123	Pumpkin	Soybeans 7-10 inch row	46-55	No Till	0	0	86	0	0	92	0	0	6
H4 West	7.8	ADRIAN Ad W	119	91	Soybeans 7-10 inch row	Pumpkin	15-20	No Till	60	0	179	55	0	183	-5	0	4

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2025</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
<b>W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Current.snapDb</b>	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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	2024 Crop	2025 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	0	73	0	0	3	0	0
H4 Middle	2.9	CASCO CaC2 W	117	123	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	No Till	0	0	64	0	0	76	0	0	12
H4 West	7.8	ADRIAN Ad W	119	91	Pumpkin	Pumpkin	15-20	No Till	60	0	176	61	0	183	1	0	7

### 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.
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# WQ1: P Trade Report

Reported For	Ingersoll Farms
Printed	2019-10-25
Plan Completion/Update Date	2019-03-15
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Current.snapDb	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

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.

**Questions?** Please contact  
 DNRphosphorus@wisconsin.gov

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

*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	2020	2021	2022	2023	2024	2025
H4 East	HOUGHTON	Ht	5	4	4	4	4	4	4
H4 Middle	CASCO	CaC2	3	8	8	13	17	16	13
H4 West	ADRIAN	Ad	8	9	7	7	7	7	8
<b>Total</b>			<b>16</b>	<b>20</b>	<b>19</b>	<b>23</b>	<b>28</b>	<b>27</b>	<b>25</b>

# ATTACHMENT F

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## SnapPlus Modeling Reports (Filter Strips)



## NM1: Narrative and Crops Report

Starting Year	2019
Reported For	Ingersoll Farms
Printed	2019-10-25
Plan Completion/Update Date:	2019-03-15
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Future.snapDb	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

Farm has 3 fields totalling 15.6 acres

**Farm Narrative:** See the hard copy of the NMP for the farm narrative.

### Annual Farm Notes:

No Annual Farm Notes

**Spreader Calibration Methods:** Custom applications

### Narrative and Crops:

Field Name	Acres	2019	2020	2021	2022	2023	2024	2025
H4 East	4.9	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre
H4 Middle	2.9	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Sweet Corn middle plant (May 20 - June 10) No Till 6.1-8 ton/acre	Pumpkin No Till 15-20 ton/acre	Pumpkin No Till 15-20 ton/acre	Pumpkin No Till 15-20 ton/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre
H4 West	7.8	Pumpkin No Till 15-20 ton/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Soybeans 7-10 inch row No Till 46-55 bu/acre	Pumpkin No Till 15-20 ton/acre	Pumpkin No Till 15-20 ton/acre

**Summary by Crop:**

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

Crops Grouped By Category		2019	2020	2021	2022	2023	2024	2025
Sweet Corn middle plant (May 20 - June 10)	Acres ton	8 56	8 56	5 35	5 35	5 35	5 35	5 35
Pumpkin	Acres ton	8 140		3 53	3 53	3 53	8 140	8 140
Soybeans 7-10 inch row	Acres bu		8 404	8 404	8 404	8 404	3 152	3 152

## FM6: Soil Test Report

<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

Field Name	Subfarm	Acres	Predominant		Soil Test Date	Soil Test Lab	Lab Number	Samples		pH	OM%	in ppm			CEC
			Soil Map Symbol	Soil Name				Rec. #	Actual #			P	K	S	
H4 East	Home	4.9	Ht	HOUGHTON	2017-04-27	ROCK RIVER LAB	199777	1	2	5.8	24.4	129	138	0	46
H4 East	Home	4.9	Ht	HOUGHTON	2012-12-07	ROCK RIVER LAB	153174	1	4	5.8	17.2	102	92	0	0
H4 Middle	Home	2.9	CaC2	CASCO	2017-04-27	ROCK RIVER LAB	199777	1	2	5.3	13.1	117	123	0	27
H4 Middle	Home	2.9	CaC2	CASCO	2012-12-07	ROCK RIVER LAB	153174	1	4	5.8	17.2	102	92	0	0
H4 West	Home	7.8	Ad	ADRIAN	2017-04-27	ROCK RIVER LAB	199777	2	2	5.9	17.3	119	91	0	37
H4 West	Home	7.8	Ad	ADRIAN	2012-12-07	ROCK RIVER LAB	153174	2	4	5.8	17.2	102	92	0	0

### Crop Year Soil Test Needed

Field Name	Soil Test Date	2017	2018	2019	2020	2021	2022	2023
H4 East	2017-04-27					X		
H4 Middle	2017-04-27					X		
H4 West	2017-04-27					X		

## FM2: Application Summary Report

Starting Year	2019
Reported For	Ingersoll Farms
Printed	2019-10-25
Plan Completion/Update Date:	2019-03-15
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Future.snapDb	

Prepared for:  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

### Annual Manure Production And Use By Source

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

Source	
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### Application Results Reported For Farm All

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

		2019	2020	2021	2022	2023	2024	2025
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	1,186	703	526	526	526	631	834
	P2O5	0	0	0	0	0	0	0
	K2O	1,648	968	1,474	1,365	1,248	1,920	1,648
Total Crop Removal (lb)	P2O5	585	507	580	580	580	629	629
	K2O	1,170	858	1,061	1,061	1,061	1,257	1,257
Nutrient Balance (Applied - Crop removal, lb)	P2O5	-585	-507	-580	-580	-580	-629	-629
	K2O	478	110	413	304	187	663	391

## NM4: Manure Tracking Report

Starting Year	2020
Reported For	Ingersoll Farms
Printed	2019-10-25
Plan Completion/Update Date:	2019-03-15
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Future.snapDb	

**Prepared for:**  
Ingersoll Farms  
attn:Ingersoll Farms  
W1291 Sunnyside Dr  
Sullivan, 53178

### Annual Manure Production And Use By Source

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

No Rows Found

### Estimated Livestock Manure Production For 2020

No Livestock Found

### Manure Storage For 2020

No Storages Found

### Spreaders For 2020

No Spreaders Found

### NM3: Field Data and 590 Assessment Plan

<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	2019-10-25
<b>Plan Completion/Update Date</b>	2019-03-15
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
<b>W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Future.snapDb</b>	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

### Field Data: 16 Total Acres Reported.

Field Name	SubF arm	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
H4 East	Home			4.9	Jefferson	ADRIAN Ad	1	250	0 - 2	301 - 1000	No / Edge	No	No	SCm-SCm-SCm-SCm-SCm-SCm	NT-NT-NT-NT-NT-NT	2020-2025	1	0	1.0	1	129	-150	-38
H4 Middle	Home			2.9	Jefferson	CASCO CaC2	6	88	0 - 2	301 - 1000	No / Edge	No	No	SCm-PU-PU-PU-Sg7-Sg7	NT-NT-NT-NT-NT-NT	2020-2025	2	0.9	0.6	1	117	-255	-64
H4 West	Home			7.8	Jefferson	CASCO CaC2	3	64	0 - 2	1001 - 5000	No / Edge	No	No	Sg7-Sg7-Sg7-Sg7-PU-PU	NT-NT-NT-NT-NT-NT	2020-2025	2	0.5	0.7	0	119	-260	-65

Abbreviation	Crop
PU	Pumpkin
SCm	Sweet Corn middle plant (May 20 - June 10)
Sg7	Soybeans 7-10 inch row

Abbreviation	Tillage
NT	No Till



## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2020</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
<b>W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Future.snapDb</b>	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	0	73	0	0	3	0	0
H4 Middle	2.9	CASCO CaC2 W	117	123	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	110	0	1	119	0	46	9	0	45
H4 West	7.8	ADRIAN Ad W	119	91	Pumpkin	Soybeans 7-10 inch row	46-55	No Till	0	0	97	0	0	107	0	0	10

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2021</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
<b>W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Future.snapDb</b>	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	8	73	0	46	3	0	38
H4 Middle	2.9	CASCO CaC2 W	117	123	Sweet Corn middle plant (May 20 - June 10)	Pumpkin	15-20	No Till	60	0	135	58	0	183	-2	0	48
H4 West	7.8	ADRIAN Ad W	119	91	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	No Till	0	0	90	0	0	92	0	0	2

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2022</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	0	73	0	0	3	0	0
H4 Middle	2.9	CASCO CaC2 W	117	123	Pumpkin	Pumpkin	15-20	No Till	60	0	132	58	0	183	-2	0	51
H4 West	7.8	ADRIAN Ad W	119	91	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	No Till	0	0	98	0	0	107	0	0	9

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2023</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	2	73	0	0	3	0	-2
H4 Middle	2.9	CASCO CaC2 W	117	123	Pumpkin	Pumpkin	15-20	No Till	60	0	129	58	0	183	-2	0	54
H4 West	7.8	ADRIAN Ad W	119	91	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	No Till	0	0	91	0	0	92	0	0	1

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2024</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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	2023 Crop	2024 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	20	73	0	46	3	0	26
H4 Middle	2.9	CASCO CaC2 W	117	123	Pumpkin	Soybeans 7-10 inch row	46-55	No Till	0	0	46	0	0	92	0	0	46
H4 West	7.8	ADRIAN Ad W	119	91	Soybeans 7-10 inch row	Pumpkin	15-20	No Till	60	0	179	55	0	183	-5	0	4

### 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.
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## FM9: Nutrient Management Report

<b>Crop Year</b>	<b>2025</b>
<b>Reported For</b>	<b>Ingersoll Farms</b>
<b>Printed</b>	<b>2019-10-25</b>
<b>Plan Completion/Update Date</b>	<b>2019-03-15</b>
<b>SnapPlus Version 18.1 built on 2019-01-15</b>	
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**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

**Field data: 16 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	2024 Crop	2025 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
H4 East	4.9	HOUGHTON Ht W	129	138	Sweet Corn middle plant (May 20 - June 10)	Sweet Corn middle plant (May 20 - June 10)	6.1-8	No Till	70	0	0	73	0	0	3	0	0
H4 Middle	2.9	CASCO CaC2 W	117	123	Soybeans 7-10 inch row	Soybeans 7-10 inch row	46-55	No Till	0	0	54	0	0	76	0	0	22
H4 West	7.8	ADRIAN Ad W	119	91	Pumpkin	Pumpkin	15-20	No Till	60	0	176	61	0	183	1	0	7

### 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.
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# WQ1: P Trade Report

Reported For	Ingersoll Farms
Printed	2019-10-25
Plan Completion/Update Date	2019-03-15
SnapPlus Version 18.1 built on 2019-01-15	
W:\Clients\Asset Development Group, LLC\Sullivan, WI\6091_Spacious Acres Assistance\Reports\WQT\Ingersoll Farms_Future.snapDb	

**Prepared for:**  
 Ingersoll Farms  
 attn:Ingersoll Farms  
 W1291 Sunnyside Dr  
 Sullivan, 53178

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.

**Questions?** Please contact  
 DNRphosphorus@wisconsin.gov

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

*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	2020	2021	2022	2023	2024	2025
H4 East	HOUGHTON	Ht	5	4	4	4	4	3	3
H4 Middle	CASCO	CaC2	3	3	3	4	5	5	4
H4 West	ADRIAN	Ad	8	8	7	6	6	6	7
<b>Total</b>			<b>16</b>	<b>15</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>15</b>

# ATTACHMENT G

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## Blank “Practice Registration Form” 3400-207



**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? <input type="radio"/> Yes <input type="radio"/> 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
<input type="radio"/> Urban NPS <input type="radio"/> Agricultural NPS <input type="radio"/> 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
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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 <input type="checkbox"/> Yes	Date Entered	Name of Department Reviewer