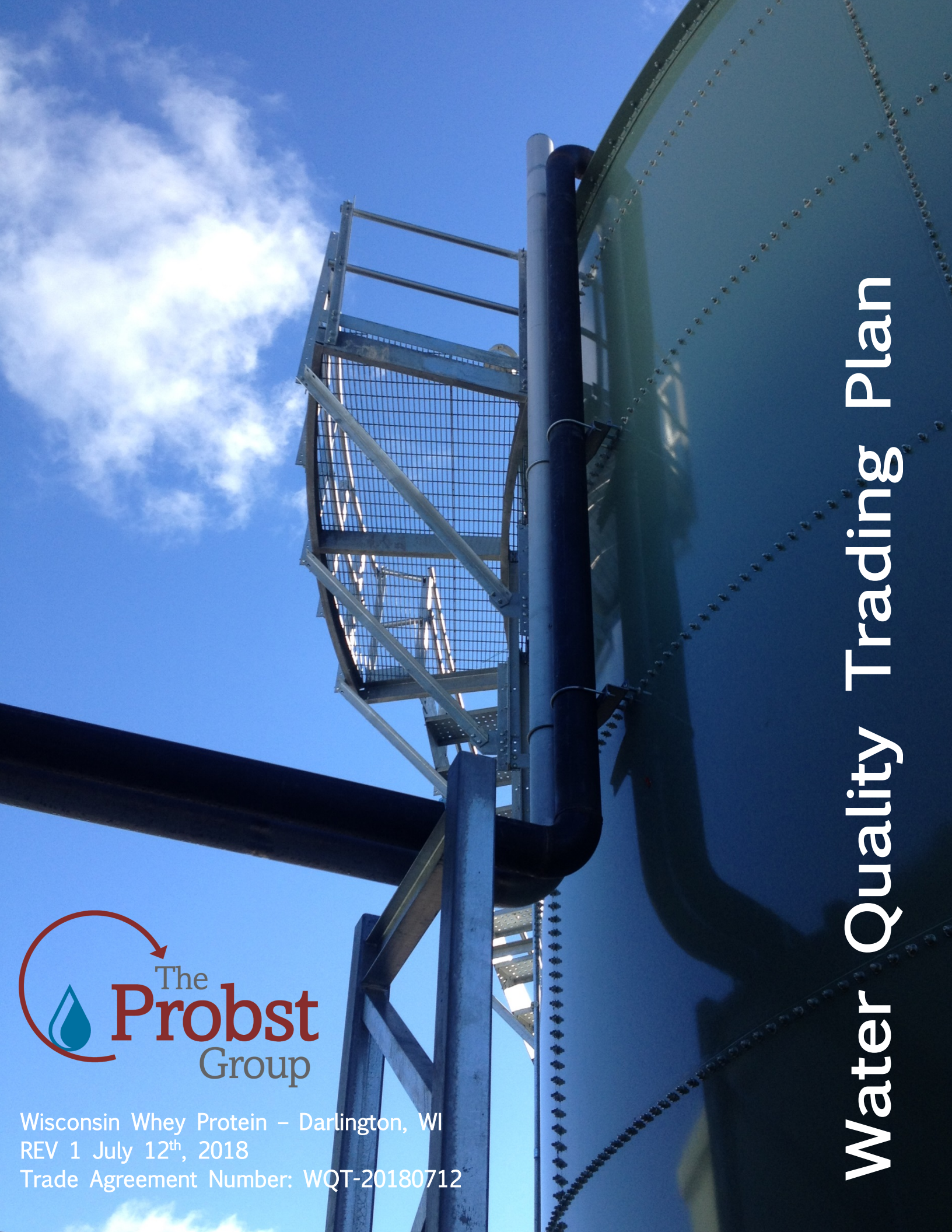


Water Quality Trading Plan

The Probst Group

Wisconsin Whey Protein – Darlington, WI
REV 1 July 12th, 2018
Trade Agreement Number: WQT-20180712

TABLE OF CONTENTS

1 Introduction 1

2 Background 1

2.1 Purpose for Water Quality Trade 1

2.2 Purpose for New Surface Water Outfall 2

2.3 Wastewater Treatment Plant Overview 2

2.4 Location of Outfall and Fields 4

2.4.1 Location of Outfall 001 4

2.4.2 Location of the Fields 4

3 Existing Conditions and Potentially Tradeable Phosphorus Modeling 6

3.1 Existing Land Use of the Fields 6

3.2 Soil Sampling 7

3.3 Modeled PTP Under Current Conditions 7

3.4 Modeled PTP with Proposed Permanent Grassland 8

3.5 Calculation of Change in PTP Based on Modified Land Use 8

4 Trade Ratio Calculation 9

4.1 Individual Trade Ratio Factors 9

4.1.1 Delivery factor: 9

4.1.2 Downstream factor: 9

4.1.3 Equivalency factor: 10

4.1.4 Uncertainty factor: 10

4.1.5 Habitat Adjustment factor: 10

4.2 Calculation of Trade Ratio Based on Individual Factors 10

5 Credit Generation Calculation 10

6 Management Practice Description 11

6.1 Installation Plan 11

6.2 Operation and Maintenance Plan 12

TABLE OF CONTENTS

7 Timeline 12

7.1 Schedule for Construction and Initial Operation of WWTP 12

7.2 Schedule for Installation of Permanent Vegetative Practice 12

8 Inspections and Reporting 12

8.1 Water Quality Trading Management Practice Registration 12

8.2 Monthly Inspection, Certification, and Reporting 12

8.3 Annual Inspections 13

8.4 Notification of Problems with Cover Management Practice 13

8.5 Annual Water Quality Trading Report 13

8.6 WDNR Right to Inspect the Fields 14

9 Compliance with Water Quality Trading Checklist 14

10 Certification of Water Quality Trade Report 15

Attachments

A – Notice of Intent (NOI) to Conduct Water Quality Trading
B – Lease Agreement between Wisconsin Whey Protein and Hendrik & Emily Britz
C – Watershed, Subwatershed, and Field Maps
D – Existing Farming Practices Questionnaire
E – Soil Sampling Results
F – SnapPlus Modeling Reports (Current)
G – SnapPlus Modeling Reports (Prairie)
H – "Practice Registration Form" 3400-207
I – Prairie Establishment Plan
J – Prairie O&M Plan
K – Water Quality Trading Checklist

1 Introduction

This water quality trading plan summarizes the plan for Wisconsin Whey Protein (WWP) in Darlington, WI to use water quality trading to comply with phosphorus discharge limits in its Wisconsin Discharge Elimination System (WPDES) permit for Outfall 001. To assist in complying with WWP's phosphorus discharge limits, WWP will install and maintain permanent vegetative cover (aka. grassland) on previously farmed fields within the same subwatershed as Outfall 001 on property owned by a third party: Hendrik and Emily Britz. WWP has entered into a written agreement with Hendrik and Emily Britz for conversion of agricultural land to permanent prairie for at least the next five years.

WWP 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 a permanent vegetative cover. Using a credit ratio of 1.2:1, WWP calculated the phosphorus water quality credits available per year based on the change in management practice from farming in corn and soybean rotation to permanent vegetative cover at the two agricultural fields. WWP will use these credits to demonstrate compliance with the total phosphorus limit in their WPDES permit.

2 Background

2.1 Purpose for Water Quality Trade

The purpose of this Water Quality Trading Plan is to describe WWP's use of water quality trading to comply with the Total Phosphorus limits on Outfall 001 of WPDES permit WI-0066371-01-0. This Water Quality Trading Plan was developed pursuant to the Notice of Intent to Conduct Water Quality Trade included in Attachment A.

In particular, WWP will trade with property owned by Hendrik & Emily Britz ("the fields") in the same HUC-12 subwatershed as Outfall 001. These fields will be placed into perennial vegetation and WWP will use the phosphorus credits generated from this management practice to comply with the Total Phosphorus limits their WPDES permit. WWP has entered into a written lease agreement with Hendrik and Emily Britz; this is provided in Attachment B.

With a total phosphorus 6-month average limit of 0.075 mg/L WWP expects to need 103 to 156 lb TP/yr assuming a combined NCCW and WWTP effluent of 0.15 – 0.19 mg/L and an average yearly flow rate of 0.45 MGD. WWP will be able to control the effluent phosphorus concentration of their process wastewater via chemical addition to ensure final compliance with the permitted phosphorus limits and the available annual trade credits discussed further in Table 5 of Section 5. Additionally, WWP will have

some time to optimize their treatment system before full flows, and therefore full phosphorus loads, are realized.

2.2 Purpose for New Surface Water Outfall

WWP currently has an existing onsite wastewater pretreatment plant which includes an EQ tank, two (2) aeration basins, two (2) dissolved air floatation (DAF) units, and a DAF float storage tank. High strength waste (HSW) is also segregated and stored in a HSW tank onsite until it can be hauled offsite.

Historically, WWP has sent their pretreated wastewater to the City of Darlington wastewater treatment plant (WWTP) for final treatment and discharge. HSW has historically been hauled off-site under the individual permit for Bytec Resource Management Inc. (WI-0059170) in Monroe, WI.

Noncontact cooling water is currently discharged to Unnamed Tributary (WBIC 921500) and is covered under the Noncontact Cooling Water or Condensate and Boiler Water General Permit (NCCW GP).

Full treatment of wastewater at the City is expensive and WWP has no control over these costs, so WWP is pursuing upgrades to their on-site WWTP to make it a full treatment system with final discharge to surface water. WWP plans to combine treated process wastewater from their upgraded WWTP along with the existing NCCW discharge via the existing outfall pipe to Unnamed Tributary (WBIC 921500) which flows into another Unnamed Tributary (WBIC 921400) before reaching the Ames Branch (WBIC 921200). This surface water outfall for the combination of treated process wastewater and NCCW will give WWP long-term control of operational fees associated with wastewater treatment.

2.3 Wastewater Treatment Plant Overview

WWP intends to add on to their existing onsite wastewater treatment plant. A full design report with plans will be submitted by Probst to WDNR for review as soon as possible. A summary of the treatment processes is provided in this section of the Water Quality Trading plan with additional detail related to treatment design to be submitted in the final design report.

The upgrades to the existing wastewater treatment system will simply be added to the back end of the existing process. Additional process units will include a selector tank to encourage biological phosphorus removal, an additional aeration basin, and an ultrafiltration membrane system for solid/liquid separation. Solids removed from the membranes will be sent to the sludge storage silo and sludge will ultimately be hauled offsite for land application or other methods of disposal. Liquid from the membranes will join with noncontact cooling water (NCCW) and reverse osmosis (RO) permeate from the

production facility for cooling in the new cooling tower prior to discharge to surface water which will provide both cooling and additional dissolved oxygen prior to discharge.

Sludge removed from the treatment system via the UF membranes will be stored in the sludge storage silo until it can be hauled offsite. Sludge will either be land applied on approved sites or will be disposed of via other methods of disposal. Sludge will be sampled as required by the WPDES permit and reporting will be done on WDNR's form 3400-49 Characteristic Report. If the sludge is land applied, volumes and locations will be reported on the 3400-55 form, and if sludge is hauled to other methods of disposal, volumes and locations will be reported on the 3400-52 form. Land application of sludge will be managed so that WWP does not exceed any permitted land application limits.

All pretreated process wastewater is currently hauled to the City of Darlington where wastewater is treated. The resulting sludge is land applied on approved sites. Because this sludge has previously been land applied within the watershed, there will be no net increase in phosphorus application as a result of WWP land applying sludge from their upgraded WWTP.

Chemical addition can occur at several locations in the wastewater treatment process with quantities that will vary based on operational setpoints. Ferric can be added to the existing selector silo, proposed new selector silo, and/or the proposed new aeration basin mix lines to encourage flocculation of solids and removal of phosphorus from the wastewater effluent. Polymer and/or ferric can also be added prior to the existing DAFs to improve solid/liquid separation efficiency.

Probst has extensive experience in design and operation of wastewater treatment plants, especially in the dairy industry. Similar treatment systems have process wastewater effluent that consistently ranges from 0.2 – 0.3 mg/L phosphorus depending on the amount of polymer and ferric dosed into the system. When NCCW and RO permeate flows, with anticipated phosphorus concentrations between non-detect levels and 0.075 mg/L, are mixed with the process wastewater, WWP will be able to achieve a combined phosphorus effluent concentration in the range of 0.15 – 0.19 mg/L, as discussed in Section 2.1 above. Operators will ensure that appropriate chemical dosing occurs to ensure compliance with the permitted phosphorus mass discharged from the Outfall taking the available phosphorus credits generated by the water quality trade into account. WWP understands the quantity of phosphorus credits that are available as a result of this trade and will apply the necessary chemicals to ensure compliance with their permitted phosphorus requirements.

2.4 Location of Outfall and Fields

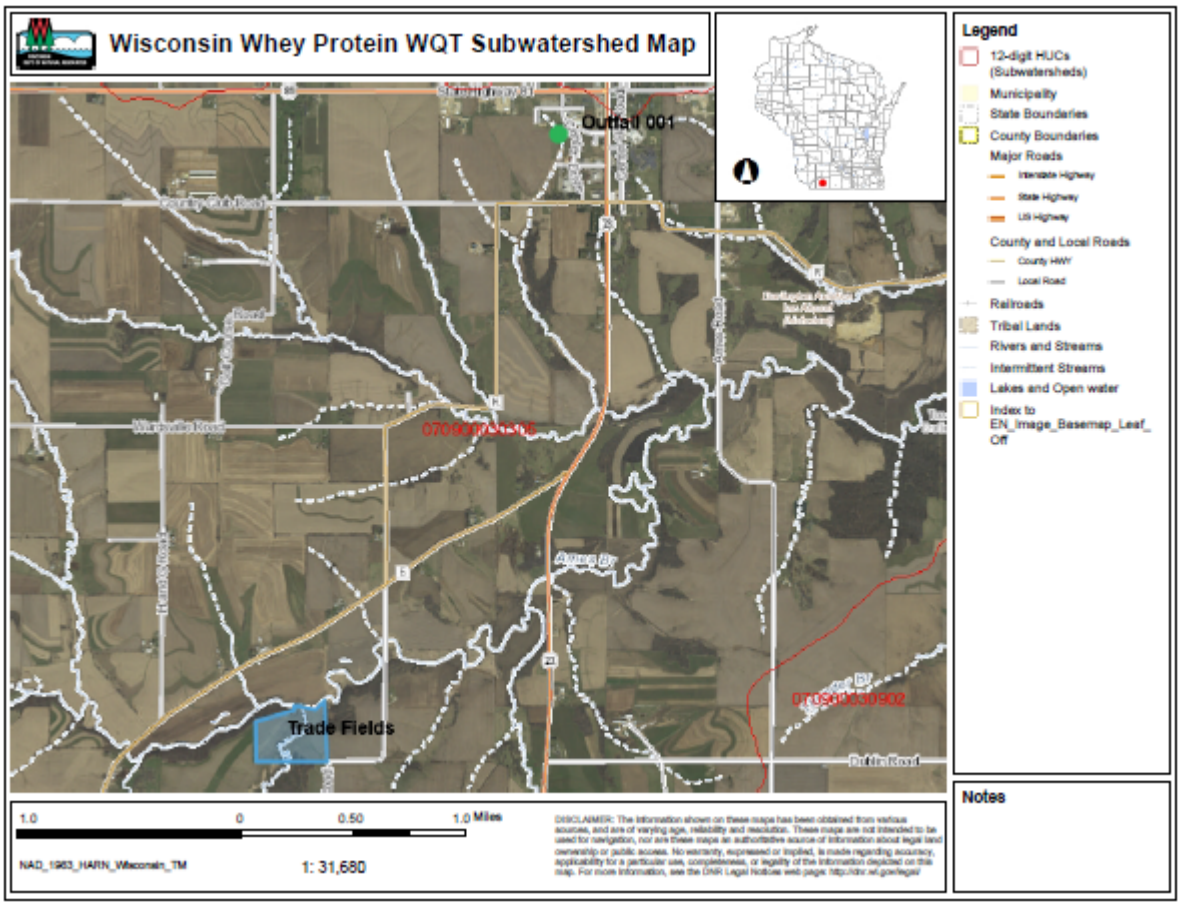
2.4.1 Location of Outfall 001

WWP will discharge treated process wastewater combined with NCCW to the Unnamed Tributary WBIC 921500 through Outfall 001 at approximate latitude of 42.66528°N and longitude of 90.13033°W. Outfall 001 is located in HUC12 Subwatershed 070900030305, which is also known as the Ames Branch Subwatershed. The Ames Branch Subwatershed is part of the larger Ames Branch-Pecatonica River Watershed (0709000303) in the Pecatonica River subbasin (07090003). Ames Branch Subwatershed is not subject to a total maximum daily load (TMDL) and is not upstream of a watershed subject to a TMDL. Figure 1 below depicts the location of Outfall 001 in the Subwatershed. This is also given in Attachment C.

2.4.2 Location of the Fields

WWP will implement the management practices to generate phosphorus credits on the property of Hendrik and Emily Britz. All 34.3 acres of the proposed trade fields are downstream of Outfall 001 in the Ames Branch Subwatershed. A map is included in Attachment C which the location of the trade fields in relation to Outfall 001. An unnamed stream WBIC 921900 bisects the Britz property; this stream drains to the Ames Branch (WBIC 921200) on the North side of the Britz property. The Ames Branch flows Northeast to the Pecatonica River (WBIC 889100) Southeast of the City of Darlington.

Figure 1
Subwatershed Map with Outfall and Fields shown



The Fields are located within Town of Darlington (Lafayette County, WI) and include parcels 010.0308.1000, 010.0309.1000, and 010.0309.2000. These parcels are all located in SEC 20 TWP 2N R 3E. A map of these parcels is included in Attachment C. Hendrik and Emily Britz also own seventeen (17) other parcels within the Ames Branch Subwatershed. A map of these parcels is also provided in Attachment C.

Table 1 below describes the current and future land use of the parcels owned by Hendrik and Emily Britz within the HUC-12 subwatershed.

Table 1
Parcels in Subwatershed Owend by Hendrik & Emily Britz

Parcel ID	Total Acreage	Previously Farmed Acreage	Acreage Converted to Permanent Grassland
010.0261.2000	1.65	1.65	0
010.0294.2000	23.04	23.04	0
010.0295.0000	40.00	40.00	0
010.0296.1000	35.95	24.40	0
010.0296.2000	4.00	4.00	0
010.0297.2000	34.75	34.75	0
010.0298.2000	20.00	20.00	0
010.0301.0000	40.00	40.00	0
010.0302.0000	40.00	40.00	0
010.0304.3100	7.50	7.50	0
010.0305.2000	24.95	23.50	0
010.0306.1000	22.50	20.80	0
010.0306.2000	17.50	13.70	0
010.0307.1000	24.97	12.10	0
010.0307.2000	14.00	12.00	0
010.0307.3000	1.08	0	0
010.0308.1000	12.00	8.00	8.00
010.0308.2000	7.50	7.50	0
010.0309.1000	17.50	10.18	10.18
010.0309.2000	22.50	16.12	16.12
TOTAL	**411.40**	**359.24**	**34.30**

3 Existing Conditions and Potentially Tradeable Phosphorus Modeling

3.1 Existing Land Use of the Fields

Table 1 above shows how much land is currently farmed on each parcel owned by Hendrik & Emily Britz. A portion of three parcels will be converted to generate credits for this water quality trade. The unfarmed acreage of these three parcels, which will not be converted to grassland for use in the water quality trade, is made up of some areas of trees and Unnamed Tributary (WBIC 921900). All previously farmed acreage on the three parcels will be converted to permanent prairie as part of the water quality trade. The other parcels owned by Hendrik & Emily Britz will not be impacted by this water quality trade.

3.2 Soil Sampling

Soil samples were taken on April 10, 2018 for both fields (A & B). A NRCS soils map of the fields is given in Attachment C and soil sample results are given in Attachment E. A map of the sample locations is also included with the results in Attachment E. The sample results were used to calculate the current and future potentially tradeable phosphorus for the water quality trade. Results of the SnapPlus reports using these site-specific soil conditions can be found in Attachments F and G.

3.3 Modeled PTP Under Current Conditions

SnapPlus V2 (version 16.3.16306.1328) was used to model the fields under current conditions. The same cropping practices were used on both fields in 2014, 2015, 2016, and 2017. The fields have been managed in a two-year rotation of soybeans and corn. The fields also had the following fertilizer applications:

- 2014: 120 lb/ac of nitrogen fertilizer and 800 lb/ac of turkey litter
- 2015: 120 lb/ac of nitrogen fertilizer, 800 lb/ac of turkey litter, and 5 tons/acre of beef penpack
- 2016: 120 lb/ac of nitrogen fertilizer and 800 lb/ac of turkey litter
- 2017: 120 lb/ac of nitrogen fertilizer, 800 lb/ac of turkey litter, and 5 tons/acre of beef penpack

Manure used on the fields has historically been generated by animals on the Britz property, but the farmer no longer owns these animals. If past cropping practices and fertilizer and manure application were going to continue, the farmer would need to purchase all fertilizer and manure applied. Application of nutrients on the parcels that are owned by Hendrik & Emily Britz which will remain in agricultural production and will not be used for the water quality trade will continue at the needs of the crop. Because all nutrient application on these fields will need to be purchased, there is no benefit to the farm to over apply nutrients. Application will not increase on the other Britz land because of this trade. There will be a net decrease of applied nutrients in the watershed as a result of this trade.

Attachment D includes information regarding existing farming practices including a completed Existing Farming Practices (EFP) questionnaire completed by Hendrik Britz as well as Natural Resources Conservation Service (NRCS) CropScape maps to confirm the stated cropping practices. This cropping and application data was modeled as a 2-year rotation through the year 2023.

Attachment F 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 2 summarizes the Potentially Tradeable Phosphorus (PTP) from the SnapPlus P Trade Report using the current crop and application rotation.

Table 2
SnapPlus Potentially Tradable Phosphorus Report - Current

	Acres	2018	2019	2020	2021	2022	2023
Field A	17.9	98.59	216.70	97.19	210.98	96.11	210.93
Field B	16.4	61.41	123.97	60.59	120.72	59.60	119.26
TOTAL	34.3	160.01	340.67	157.78	331.70	155.71	330.19

3.4 Modeled PTP with Proposed Permanent Grassland

The fields were then modeled by replacing the current crop rotation with a permanent grassland, not harvested. The same SnapPlus reports as were done for the current crop rotation are available for the permanent grassland modeling in Attachment G. Table 3 below summarizes the PTP given in the SnapPlus P Trade Report for future conditions with permanent grassland, not harvested.

Table 3
SnapPlus Potentially Tradable Phosphorus Report – Permanent Grassland, not harvested

	Acres	2018	2019	2020	2021	2022	2023
Field A	17.9	12.62	4.30	2.25	1.36	1.10	0.96
Field B	16.4	9.70	4.49	3.16	2.52	2.31	2.19
TOTAL	34.3	22.31	8.79	5.41	3.88	3.41	3.15

3.5 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 a permanent grassland, not harvested, total PTP was then calculated. Table 4 is a calculation of the difference of the values in Tables 2 and 3 above. This table does not incorporate the trade ratio which is discussed further in Section 4 of this report. The trade ratio must be included to determine final credits generated.

Table 4
Calculated Potentially Tradable Phosphorus – Permanent Grassland, not harvested

	Acres	2018	2019	2020	2021	2022	2023
Field A	17.9	85.97	212.40	94.94	209.62	95.01	209.97
Field B	16.4	51.72	119.48	57.43	118.20	57.28	117.07
TOTAL	34.3	137.69	331.88	152.37	327.82	152.30	327.04

4 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:

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

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

As described in further detail by factor below, WWP's management practice results in the minimum trade ratio of 1.2:1.

4.1 Individual Trade Ratio Factors

4.1.1 Delivery factor:

As discussed earlier, the Fields subject to the permanent vegetative cover management practice are within the same HUC12, the Ames Branch Subwatershed as WWP's Outfall 001. In addition, the Fields are close, approximately 3 miles, to Outfall 001. 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.

4.1.2 Downstream factor:

All 34.3 acres of the proposed trade fields are downstream of Outfall 001 and therefore require a downstream factor. See WQT Guidance at Section 2.11.2. Calculation of the downstream factor was done using PRESTO-lite and Section 5 of the WQT Guidance. The PRESTO-lite map and associated report are included in Attachment C.

PRESTO-lite estimates the average annual nonpoint phosphorus load to be 1,902 lbs of phosphorus for the 249.6-acre subcatchment in which Outfall 001 is located. This is equal to 7.62 lbs/ac of phosphorus in the subcatchment. Upstream acreage was

determined using the measurement function of the Surface Water Data Viewer. By multiplying the measured 45.93 upstream acres by 7.62 lbs/ac, the total nonpoint load at the point of discharge is 350 lbs. WWP's maximum load is expected to be 156 lbs/year. Therefore, WWP's discharge will be 44.6% of the total current load at the point of discharge. Using Section 5 of the WQT Guidance, the 34.3 acres downstream of the point of discharge will have a downstream factor of 0.2.

4.1.3 Equivalency factor:

The permanent vegetative cover management practice on the Fields will reduce phosphorus loadings to the subwatershed. WWP is using the phosphorus credits generated by the permanent vegetative cover management practice to comply with the phosphorus limits on Outfall 001. 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.

4.1.4 Uncertainty factor:

The Fields will be placed in permanent vegetative cover, as described in Section 6. According to Table 4 of the WQT Guidance, land in perennial vegetation that was established and is maintained consistent with NRCS Technical Standard 327 results in an uncertainty factor of 1. See WQT Guidance at § 2.11.4, Table 4.

4.1.5 Habitat Adjustment factor:

WWP 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.

4.2 Calculation of Trade Ratio Based on Individual Factors

Inserting the above factors into the WQT Guidance's trade ratio formula results in a trade ratio of 1.2:1:

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

Trade Ratio = (0 + 0.2 + 0 + 1 – 0):1
= 1.2:1

Because the minimum allowed trade ratio by WDNR is 1.2:1, WWP will use a 1.2:1 trade ratio for the entire 34.3 acres for estimating credits generated by the management practice.

5 Credit Generation Calculation

For each year, the credit generated from the management practice is the difference between the PTP based on SnapPlus modeling assuming the prior crop rotation was

continued and the PTP based on SnapPlus modeling assuming a permanent vegetative cover is installed and maintained on the Fields, divided by the credit ratio as shown in the equation below. Table 5 shows the results of this calculation for each field.

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

Table 5
SnapPlus PTP (lb/acre/year) - (trade ratio of 1.2 applied)

	Acres	2018	2019	2020	2021	2022	2023
Field A	17.9	71.65	177.00	79.12	174.68	79.18	174.98
Field B	16.4	43.10	99.57	47.86	98.50	47.74	97.56
TOTAL	34.3	114.74	276.57	126.98	273.18	126.92	272.53

For example, in 2018 for Field B:
PTP Assuming Crop Rotation Continues: 61.41 lbs P/yr (from Table 2)
PTP Assuming Permanent Vegetative Cover: 9.7 lbs P/yr (from Table 3)
Difference: 51.72 lb P/yr (61.41-9.7, from Table 4)
Trade ratio: 1.2:1 (from Section 4.2)
PTP including Trade Ratio: 43.10 lbs P/yr (51.72/1.2)

Planting of the permanent prairie was completed in June 2018. Full establishment of the prairie is expected by October 1, 2018, so the generation of trade credits in 2018 is limited to three months of the year. Therefore, the 2018 credits shown in Table 5 have been prorated for only 3 months of 2018, see Table 6 below. This does not impact the credit generation calculation for any other year.

Table 6
WI-0066371-01-0 Credit Availability

	Acres	2018	2019	2020	2021	2022	2023
Credits Available	34.3	28.69	276.57	126.98	273.18	126.92	272.53

6 Management Practice Description

6.1 Installation Plan

An Establishment Plan has been developed by Carl Korfmacher of Midwest Prairies and has been included as Attachment I. The plan outlines what soil preparation, seed mix, erosion control measures, and other measures are required to install the native prairie consistent with NRCS Technical Standard 327. The seed mix includes all native grasses

and sedges. The plan is specific to each field and a map is included. The plan outlines other activities that may or may not be required to establish the prairie during the first couple of months.

6.2 Operation and Maintenance Plan

A separate operation & maintenance plan was also prepared by Carl Korfmacher of Midwest Prairies and has been included as Attachment J. This plan outlines regular maintenance requirements to keep the prairie healthy. It also includes other irregular activities that may be required after inspections by a prairie expert.

7 Timeline

7.1 Schedule for Construction and Initial Operation of WWTP

WWP will begin constructing the Industrial Wastewater Treatment Plant in the Fall of 2018. Estimated start-up date and discharge of treated wastewater in accordance with Outfall 001 of their WPDES permit will occur in the Winter of 2018-2019.

7.2 Schedule for Installation of Permanent Vegetative Practice

Date	Action
June 2018	Initial Planting of prairie (including cover crop)
July 2018	First inspection (one month after planting)
July 2018	Germination of all seed
August thru Nov 2018	Mowing and herbicide application as needed for weed control
By October 1, 2018	Second inspection
By October 1, 2018	Prairie established (bare spots greater than 100 yd^2 will be reseeded)
By October 1, 2018	WWP will follow the Operation and Maintenance plan after this date. The prairie will be maintained indefinitely to maintain the water quality trade.

8 Inspections and Reporting

8.1 Water Quality Trading Management Practice Registration

Planting of the permanent prairie was completed in June 2018. A completed Registration Form 3400-207 for Water Quality Trading Management Practice Registration ("Practice Registration Form") is included in Attachment H.

8.2 Monthly Inspection, Certification, and Reporting

Each month, WWP will inspect the Fields generating the phosphorus reduction credits to confirm continued cover of the permanent vegetative management practices. Any photos taken during these inspections can be used to supplement the annual inspections described further in Section 8.3.

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

> I certify that to the best of my knowledge the management 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.

8.3 Annual Inspections

Once per year, WWP's prairie restoration consultant will inspect the Fields generating the phosphorus reduction credits to confirm implementation of the permanent vegetative cover management practice and 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 two photographs of each of the Fields; one overall site photo, and one close-up photo of a representative area of the field. As stated in Section 8.2 above, Wisconsin Whey Protein will also certify in their DMRs each month that the practice is still in place and generating credits.

8.4 Notification of Problems with Cover Management Practice

In accordance with the Operation and Maintenance Plan, WWP will notify WDNR verbally within 24 hours of becoming aware that phosphorus reduction credits used or intended for use by WWP are not being implemented or generated as set forth in this Water Quality Trading Plan. Additionally, within seven (7) days of becoming aware of noncompliance, written notification will be provided to WDNR. 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. WWP shall work to rectify such problems in accordance with the Operation and Maintenance Plan.

8.5 Annual Water Quality Trading Report

WWP 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, and monthly inspections if available, of the permanent vegetative cover management practice 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-0066371-01-0 with respect to water quality trading that have not been reported in discharge monitoring reports.

8.6 WDNR Right to Inspect the Fields

WDNR has the right to inspect the permanent vegetative cover management practice at any time upon giving reasonable notice to WWP to ensure the management practice is in compliance with the NRCS Technical Standard 327 and the terms of this Plan.

9 Compliance with Water Quality Trading Checklist

This Water Quality Trading Plan complies with the Water Quality Trading Checklist in Table 8 set forth at page 37 of the WQT Guidance. The checklist is also included in Attachment K. WWP's water quality trade must comply with the requirements for Credit Source (e) in Table 8. Credit Source (e) includes sources where "credits are obtained from a construction project or implementation of a plan undertaken by the credit user for sources other than that covered by the credit user's WPDES permit." WWP will be installing permanent vegetative cover on the Fields, which are not currently covered by their WPDES permit.

Below is a list of the elements of a Water Quality Trading plan for credit sources classified as (e) under Table 8 and references the section of this Water Quality Trading Plan in which each element is addressed:

- Permittee's/credit user's WPDES permit number. WWP's WPDES permit number is WI-0066371-01-0 and is included in Section 2.1.
- Permittee's/credit user's contact information. WWP's contact information is included in Section 10.
- Pollutant(s) for which credits will be generated. Credits will be generated for phosphorus as discussed in Section 2.1.
- Amount of credits available from each location/management practice/local governmental unit when acting as a broker. The amount of credits generated per year by installing and maintaining permanent vegetative cover on the Fields is set forth in Table 5 in Section 5.
- Certification that the content of the trading application is accurate and correct. Certification that the content of this trading application is accurate and correct is included in Section 10.
- Signature and date of signature of permittee's/credit user's authorized representative. WWP's authorized representative's signature and date of signature is included in Section 10.
- Location(s) where credits will be generated (e.g., map of field or site where management practice will be applied including major drainage way(s) from the project). Maps indicating the location of the Fields and Outfall 001 are included in Section 2.4.2 and in Attachment C.

- Identification of method(s) including management practice(s) that will be used to generate credits at each location. The management practice applied to the Fields is permanent vegetative cover consistent with NRCS Technical Standard 327 and is explained in Section 6 and Attachments I and J.
- Duration of agreement (e.g., the design life of the management practice) with each credit generator. The design life of the permanent vegetative management practice is perpetual as described in Section 1.
- Schedule for installation/construction of each management practice. The schedule for installation of the permanent vegetative practice is included in Section 7.2.
- Operation and maintenance plan for each management practice used to generate credits. The operation and maintenance plan for the permanent vegetative cover management practice is summarized in Section 6.2 and included in full in Attachment J.
- Date when credits become available for each management practice (i.e., when practice is established and effective). The date when credits become available is September 1, 2018 and is referenced in Section 7.
- Model(s) used to derive the amount of credits. The model used to derive the amount of credits is SnapPlus V2 version 16.3 as referenced in Section 3.
- The applicable trade ratio for each for each management practice including supporting technical basis (see Table 4 on p. 20 of WQT Guidance). The applicable trade ratio is 1.2:1 and the technical basis and calculation of the trade ratio is included in Section 4.

10 Certification of Water Quality Trade Report

The undersigned hereby certifies that this Water Quality Trade Report is, to the best of his knowledge, accurate and correct.

Wisconsin Whey Protein – Darlington, WI.

By: _____
Jim Fischer

608-776-2866 ext 149
160 Christensen Drive
Darlington, WI 53530

ATTACHMENT A

Notice of Intent (NOI) to Conduct Water Quality Trading

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

Notice of Intent to Conduct Water Quality Trading

Form 3400-206 (1/14)

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

Applicant Information

Permittee Name	Permit Number	Facility Site Number
Wisconsin Whey Protein	WI- 0066371-01-0	

Facility Address	City	State	ZIP Code
160 Christensen Drive	Darlington	WI	53530

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

Project Name
Wisconsin Whey Protein Water Quality Trade

Receiving Water Name	Parameter(s) being traded	HUC 12(s)
WBIC 921500	Phosphorus	070900030305

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

- ○ Point source dominated
- ◉ Nonpoint source dominated

Credit Generator Information

Credit generator type (select all that apply):

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

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

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

Are any of the credit generators downstream of the applicant?

- ◉ Yes
- ○ No
- ○ Unsure

Will a broker/exchange be used to facilitate trade?

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

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

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

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

List the practices that will be used to generate credits:

Conservation Easement (natural prairie restoration) with previous agricultural land on parcels 010.0308.1000, 010.0309.1000, and 010.0309.2000 in the Town of Darlington located in the same HUC 12 as Wisconsin Whey Protein.

Method for quantifying credits generated:
- ☐ Monitoring
- ☒ Modeling, Names: SnapPlusV2
- ☐ Other: _____

Projected date credits will be available: 10/01/2018

The preparer certifies all of the following:

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

Signature of Preparer	Date Signed
[signature]	5/31/2018

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
[signature]	5/31/2018

ATTACHMENT B

Lease Agreement between Wisconsin Whey Protein and Hendrik & Emily Britz

FARM FIELD LEASE AGREEMENT

This Farm Field Lease Agreement is entered into this 1ST day of MAY, 2018, by and between **Hendrik W. Britz and Emily L. Britz**, owner of the land to be described herein, ("Lessors") and **Wisconsin Whey Protein Inc.** ("Lessee").

The parties agree as follows:

1. Lessors agree to lease to Lessee approximately 38 acres of tillable land, more or less, located and described as follows:
   See Appendix A for description

2. Term of this Lease shall be for five (5) years. Said Lease to run from May 1, 2018 to April 30, 2023. Lessee shall have the first option to renew said Lease upon such terms as the parties are able to agree.

3. Lessee shall pay yearly rent to the Lessors. The yearly rental payment will be made in one payment per year. The rental payment in the amount of [redacted] will be paid to the Lessors on or before May 1 of each rental year.

4. Lessee has the right to sub-lease the above described property subject to the reasonable approval of Lessor.

5. Lessee shall plant prairie grass on the leased farm land as per the Department of Natural Resources' specifications. Lessee will be a good steward of the land. Lessors shall have the right to inspect the land any time.

6. Lessee is only leasing from Lessor that land which is tillable.

7. Lessors and Lessee herewith agree that they will negotiate any problems and/or changes which may arise in good-faith, with reasonableness, and in a good and business-like manner.

Signed this 1ST day of MAY, 2018.

LESSORS:

Hendrik W. Britz

Emily L. Britz

LESSEE:

Wisconsin Whey Protein
By: Dave Stordahl CFO

WITNESS:

Jim Fischer

Appendix A
Legal Description of the Leased Property

Parcel 1:
Part of the Southeast Quarter (SE 1/4) of the Southeast Quarter (SE 1/4) of Section 17-2-3 described as follows: Beginning at the SW corner of said Southeast Quarter (SE 1/4) of the Southeast Quarter (SE1/4) of Section 17, thence East 11.52 chains, thence North 1.43 chains, thence West 11.52 chains, thence South 1.43 chains to the said place of beginning.

Part of the Northeast Quarter (NE 1/4) of Section 20-2-3 described as follows: beginning at the SE corner of said Northeast Quarter (NE 1/4) of Section 20, thence North 14.46 chains, thence West 8.48 chains, thence North 25.54 chains, thence West 11.52 chains, thence South 40 chains, and thence East 20 chains to the said place of beginning. EXCEPT: Real Estate described in Volume 25 of Deeds on Page 635 described as follows: Commencing at a point in the Section line 10 chains and 45 links North of the quarter section corner between Sections 20 and 21, Town 2 North, Range 3 East of the 4th PM, and running thence North on the Section line 4 chains, thence West 1 chain and 25 links, thence South 4 chains and 88 links, thence North 54 degrees 50 minutes East 1 chain and 53 links to the place of beginning.

The East 45 acres of the Southeast Quarter (Se 1/4) of Section 20-2-3; Town and Range above referred to being Town 2 North, Range 3 East of the 4th P.M., Township of Darlington, in Lafayette County, Wisconsin.

Parcel 2:
Part of the Southeast Quarter (SE 1/4) of the Southeast Quarter (SE 1/4) of Section 17-2-3 described as follows: Beginning at the SW corner of said Southeast Quarter (SE 1/4) of the Southeast Quarter (SE1/4) of Section 17, thence East 11.52 chains, thence North 1.43 chains, thence West 11.52 chains, thence South 1.43 chains to the said place of beginning.

Part of the Northeast Quarter (NE 1/4) of Section 20-2-3 described as follows: beginning at the SE corner of said Northeast Quarter (NE 1/4) of Section 20, thence North 14.46 chains, thence West 8.48 chains, thence North 25.54 chains, thence West 11.52 chains, thence South 40 chains, and thence East 20 chains to the said place of beginning.

The East 45 acres of the Southeast Quarter (Se 1/4) of Section 20-2-3; Town and Range above referred to being Town 2 North, Range 3 East of the 4th P.M., Township of Darlington, in Lafayette County, Wisconsin.

Parcel 3:
The South One-half (S 1/2) of the North East Quarter (NE 1/4) of the Northwest Quarter (NW 1/4) of Section Twenty (20) and a piece of landed bounded as follows: Commencing 4.60 chains North of the Southwest corner of the Southeast Quarter (Se 1/4) of the Southwest Quarter (SW 1/4) of said Section Twenty (20); thence running North 74 1/2 degrees East 17.30 chains; thence North 47 1/2 degrees East 10.50 chains; thence North 1.50 chains; thence North 27 degrees West 14.50 chains; thence North 16 degrees West 12 chains; thence North to the Northeast corner of the Southeast Quarter (SE 1/4) of the Northwest Quarter of said Section Twenty (20); thence

West 20 chains; thence South to the place of beginning. EXCEPT: Lands conveyed for highway purposes as described and recorded in the office of the register of Deeds for Lafayette County, WI in Volume 154 of Deeds, Page 197.

The West Three-fourths (W 3/4) of the East One-half (E 1/2) of the West One-half (W 1/2) of the East One-Half (E 1/2) of the Southeast Quarter (SE 1/4) of Sec. 20-2-3;

Commencing at the Northwest Corner of the Northeast Quarter (NE 1/4) of said sec. 20, and running thence East 20 chains; thence South to the South line of the section aforesaid; thence West 5 chains; thence North 19.5 chains to the North bank of Ames branch; thence North 27 degrees West 14.5 chains; thence North 16 degrees West 12 chains; thence North 27 degrees West 6 chains; thence North to place of beginning. EXCEPT: a parcel of land in part of the Southwest Quarter (SW 1/4) of the Northeast Quarter (NE 1/4) and Northwest Quarter (NW 1/4) of the Southeast Quarter (SE 1/4) of Section 20, Town 2 North, Range 3 East, Darlington Township, Lafayette County, Wisconsin, to wit: Commencing at the S 1/4 CORNER of said Section 20; thence N 23°03'22" E, 2692.62' to the POINT OF BEGINNING; said point being in the centerline of County Trunk Highway E and being the beginning of a curve, concave to the southeast, having a radius of 2385.20', a central angle of 5°28'19", and a chord of 227.71' bearing S 61°38'49" W; thence southwesterly along said curve and centerline, a distance of 227.80'; thence N 5°56'21" W, 242.09'; thence N 10°29'15" W, 51.99'; thence S 86°13'33" E 161.06'; thence S 42°55'00" E, 104.68'; thence S 1°43'43" E 96.56' to the POINT OF BEGINNING.

The West One-half (W 1/2) of the West One-half (W 1/2) of the East One-half (E 1/2) of the Southeast Quarter (SE 1/4) of said Section 20-2-3; Subject to and also including an easement described as follows: A strip of land located in part of the Northwest Quarter (NW 1/4) of the Southeast Quarter (SE 1/4) of Section 20, Town 2 North, Range 3 East, Darlington Township, Lafayette County, Wisconsin, more particularly described as being 40' in width and lying 20' on each side of and adjoining the following described centerline, to wit: Commencing at the S 1/4 CORNER of said Section 20; thence N 23°03'22" e, 2692.62' to the POINT OF BEGINNING of said centerline, said point being in the centerline of County Trunk Highway E; thence N 1° 43'43" W, 96.56' to the end of said centerline and strip.

A parcel of land located in the Southwest Quarter (SW 1/4) of the Southwest Quarter (SW 1/4) of Section Twenty (20) Township Two (2) North, Range Three (3) East of the 4th P.M., Township of Darlington, Lafayette County, Wisconsin, said parcel being described as follows: Commencing at the Southwest corner of said Section Twenty (20); thence North 89°49'52" East 1317.18 feet along the South line of the Southwest Quarter (SW 1/4) of the Southwest Quarter (SW 1/4) of said Section to the Southeast corner thereof; thence North 00°45'02" East 952.60 feet along the South line of the Southwest Quarter (SW 1/4) of the Southwest Quarter (SW 1/4) of said Section to a point in the centerline of County Trunk Highway "E", said point being the point of beginning; thence South 48°58'21" West 1078.08 feet along said centerline to a meander corner of that is North 48°58'22" East 27 feet more or less from the centerline of a creek known as Ames Branch; thence South 51°14'29" East 125.69 feet along a meander line of said creek; thence South 56°26'22" East 177.56 feet along said meander line; thence South 82°53'26" East 20.03 feet along said meander line; thence North 32°40'10" East 277.81 feet along said meander line; thence North 79°11'28" East 124.15 feet along said meander line; thence South 67°17'49" East 84.67 feet along said meander line; thence North 69°04'20" East

116.33 feet along said meander line; thence North 48°36'41" East 30.72 feet along said meander line; thence North 72°20'49" East 60.98 feet along said meander line to a meander corner that is North 00°45'02" East 582.23 along the East line of the Southwest Quarter (SW 1/4) of the Southwest Quarter (SW 1/4) of said Section Twenty (20) to the point of beginning. Also including the lands between the meander line and the centerline of said creek.

Town and Range above referred to being Town Two (2) North, Range Three (3) East of the 4th P.M>, Township of Darlington, Lafayette County, Wisconsin.

ATTACHMENT C

Watershed, Subwatershed, and Field Maps

Wisconsin Whey Protein WQT Subwatershed Map

Legend

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

Notes

1.0 0 0.50 1.0 Miles

NAD_1983_HARN_Wisconsin_TM

1: 31,680

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/legal/

Web AppBuilder for ArcGIS

May 3, 2018

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Address Points

Roads

Town Road

County Road

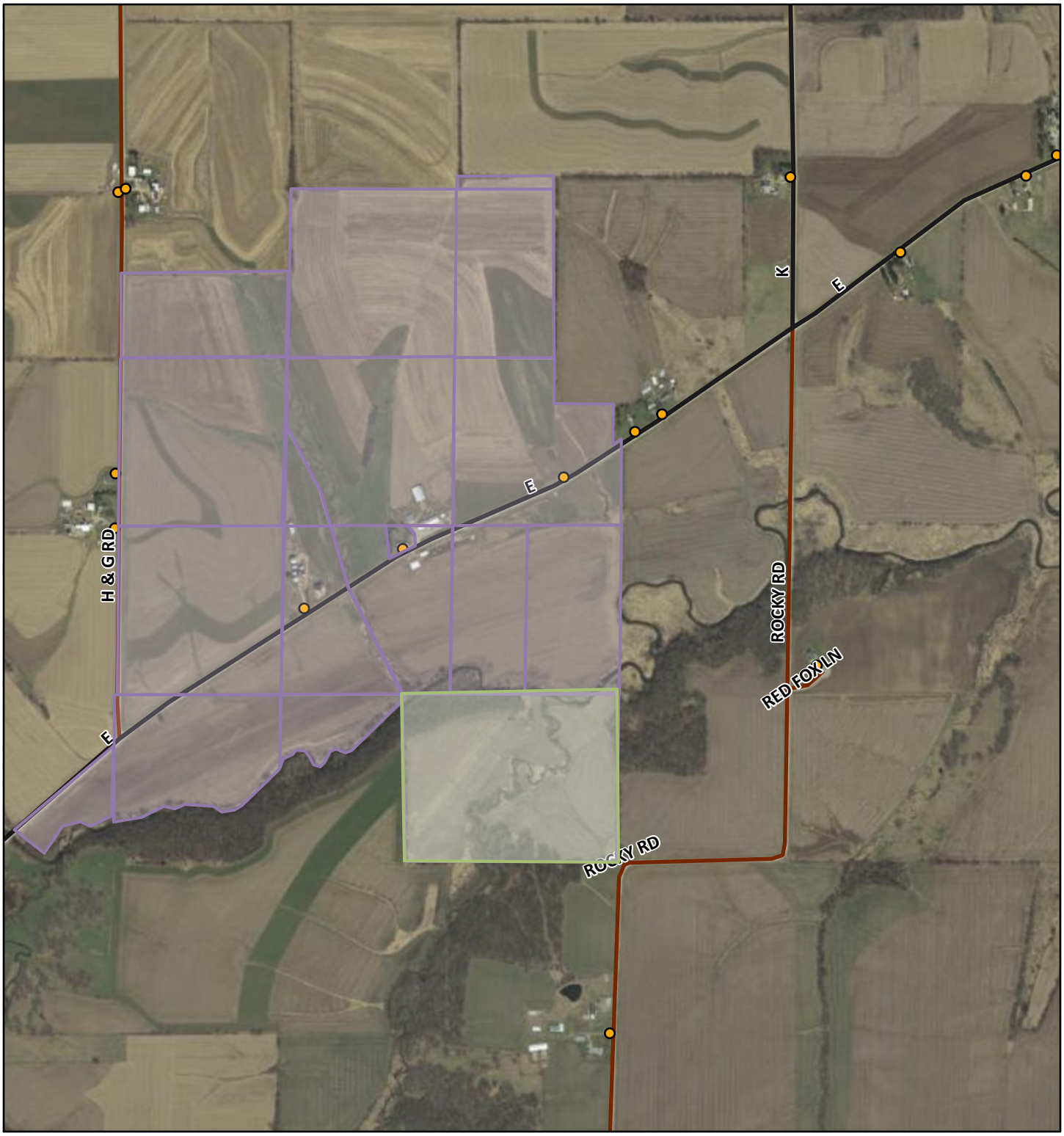
Municipal Boundary

Tax Parcels

2015 Lafayette County, USDA FSA, DigitalGlobe, GeoEye, CNES/Airbus DS

Features represented in this document do not replace deeds, surveys, or other legally recorded documents.

Britz Parcels



May 22, 2018

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Areas

- Britz Non-WQT Parcels
- Britz WQT Parcels
- Address Points

Roads

- Town Road
- County Road
- Municipal Boundary

2015 Lafayette County, USDA FSA, DigitalGlobe, GeoEye, CNES/Airbus DS

Features represented in this document do not replace deeds, surveys, or other legally recorded documents.

Soil Map—Lafayette County, Wisconsin
(Wisconsin Whey Protein WQT Field Soil Map)

Map Scale: 1:3,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

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: Lafayette County, Wisconsin
Survey Area Data: Version 14, Oct 6, 2017

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

Date(s) aerial images were photographed: Dec 31, 2009—May 5, 2016

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
1180F	Newglarus-Dunbarton, very stony, silt loams, 30 to 60 percent slopes, very rocky	1.0	2.1%
An	Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded	15.6	31.6%
AsC2	Ashdale silt loam, 6 to 12 percent slopes, moderately eroded	0.9	1.9%
DsC2	Newglarus silt loam, moderately deep, 6 to 12 percent slopes, moderately eroded	4.1	8.2%
DsD2	Newglarus silt loam, moderately deep, 12 to 20 percent slopes, moderately eroded	11.6	23.5%
FdC2	Fayette silt loam, uplands, 6 to 12 percent slopes, moderately eroded	0.1	0.2%
PaC2	Palsgrove silt loam, 6 to 12 percent slopes, moderately eroded	10.8	21.9%
PaD2	Palsgrove silt loam, 12 to 20 percent slopes, moderately eroded	2.6	5.3%
SoE2	Sogn silt loam, 20 to 30 percent slopes, moderately eroded	2.6	5.4%
Totals for Area of Interest		**49.3**	**100.0%**

Wisconsin Whey Protein

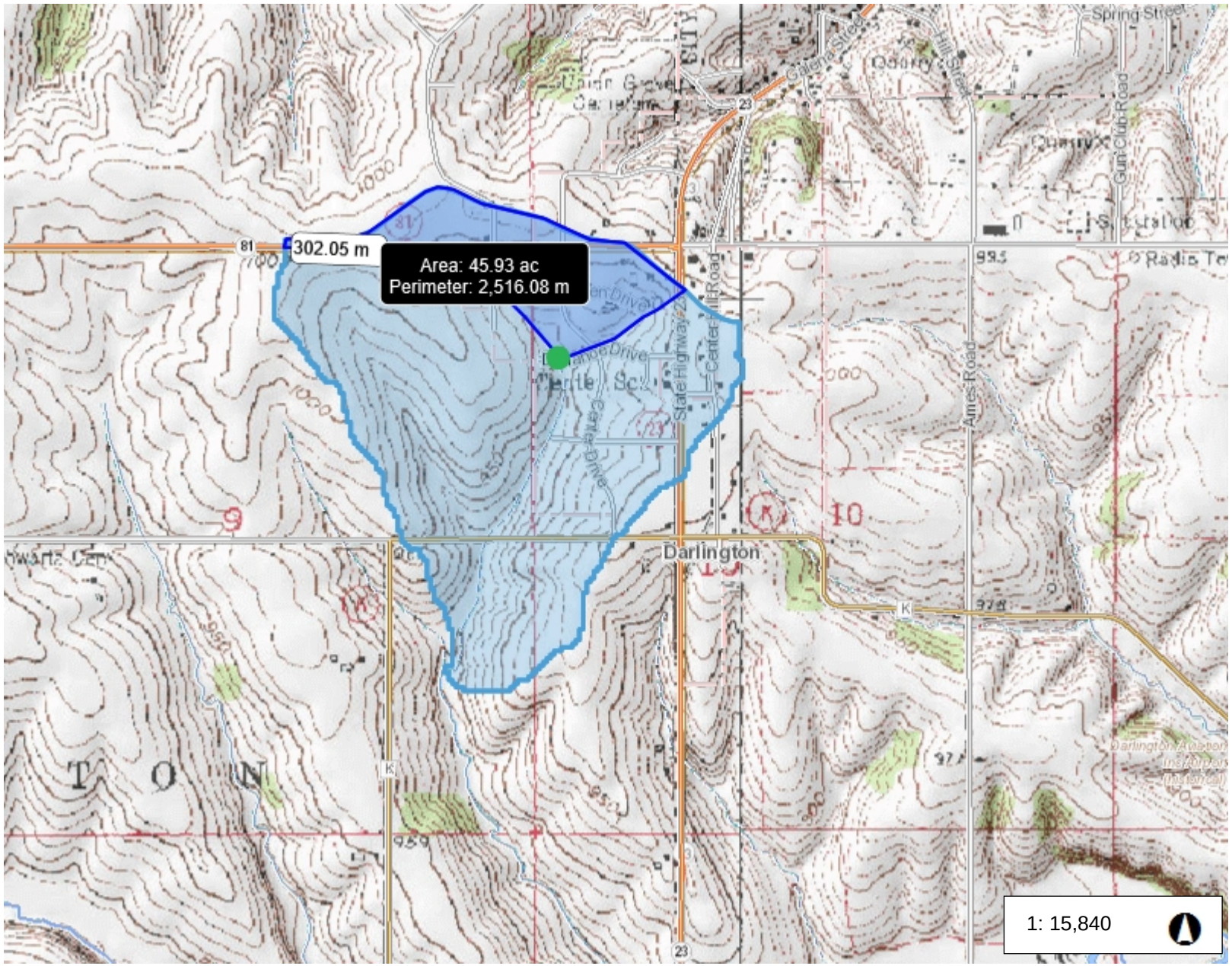
Farm Name: Wisconsin Whey Protein

Is this a CAFO: False

Map generated on: 5/31/2018 SnapMap Version: 16.0, Crop year: 2018

- Counties
- Township/Range
- Fields
- Tile lines
- Not farmed
- Grass filter area
- Vegetated buffer
- Non-metallic mine
- Water
- Sinkhole/other karst feature
- Other
- Designed grassed waterway
- Permanent vegetated channel
- Unvegetated ephemeral channel
- Drainage ditch
- Gully
- Point buffers
- Drinking Well
- Well
- Irrigation Well
- Sinkhole
- Non-metallic mine
- Fractured bedrock at surface
- Other direct conduit
- Tile outlet
- Tile inlet
- County Defined Karst Features

Wisconsin Whey Protein Upstream Acreage



Legend

- ▲ Surface Water Outfalls
- — Impaired Rivers and Streams
- ■ Impaired Lakes

Notes

0.5 0 0.25 0.5 Miles

NAD_1983_HARN_Wisconsin_TM

© Latitude Geographics Group Ltd.

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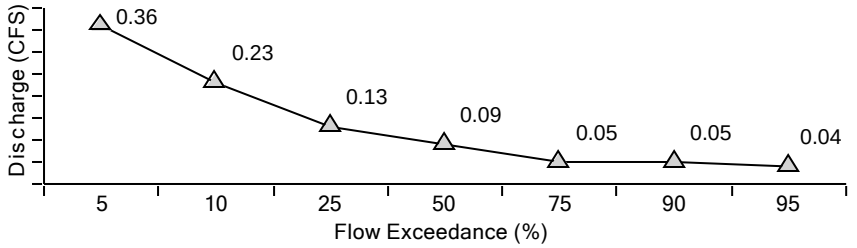
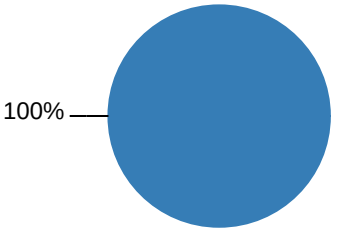
PRESTO-Lite Watershed Delineation Report

Reach ID: 200006782	
Watershed Name: Ames Branch	
Waterbody Name: Unnamed	
HUC08: Pecatonica River	
Watershed Area: 0.39 mi²	
Average Annual Precipitation: 34.41in	

Stream Flow

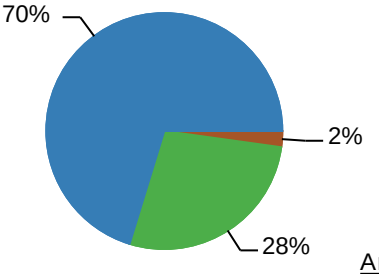


Tributary Stream Type



Type	Length
Cool-Cold Headwater	1147 ft
Coldwater	0 ft
Cool-Cold Mainstem	0 ft
Cold Headwater	0 ft
Cold Mainstem	0 ft
Large River	0 ft
Macroinvertebrates	0 ft
Warm Headwater	0 ft
Warm Mainstem	0 ft

Landcover



Type	Area
Agriculture	0.28 mi²
Urban	0.11 mi²
Forest	0.01 mi²

PRESTO Phosphorus Load Estimate

Avg. Annual Nonpoint Phosphorous Load (80% Confidence Interval)	1,902 (530 - 6,826) lbs
Number of Facilities (Individual Facility Information below)	0
Avg. Annual Point-source Phosphorous Load (2010 - 2012 total of all facilities)	0lbs
Most Likely Point : Nonpoint Phosphorous Ratio	0% : 100%
Low Estimate Point : Nonpoint Phosphorous Ratio (Adaptive Management)	0% : 100%

Adaptive Management Results

Facilities Discharging to the Ames Branch Watershed:

Facility Name	Permit #	Outfall #	Waste Type	Receiving Water	Avg. Phosphorus Load (lbs.) (2010 - 2012)
No Facilities Found	-	-	-	-	-

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

ATTACHMENT D

Existing Farming Practices Questionnaire

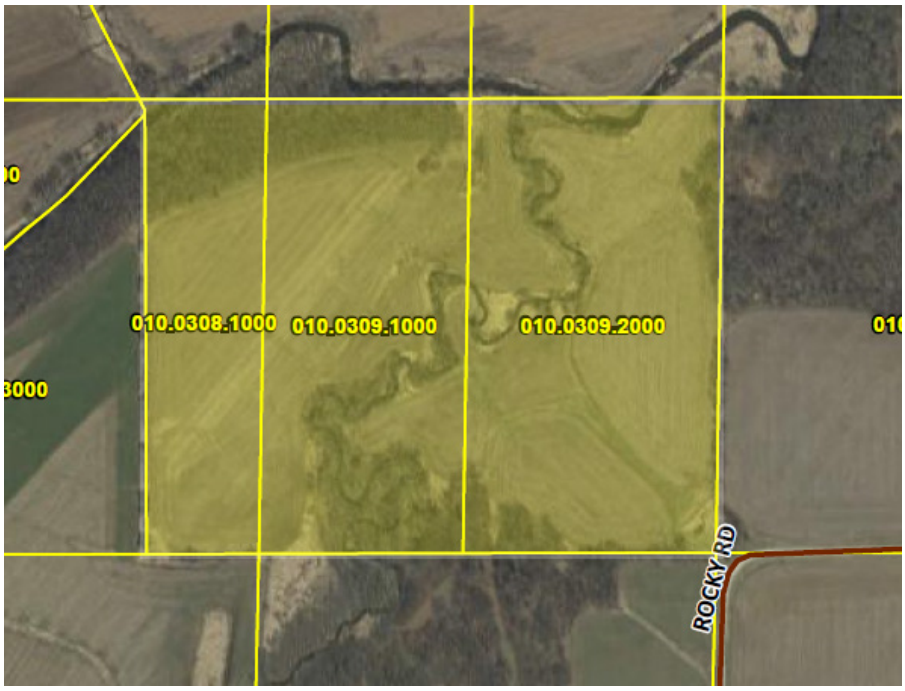
17035 W. Wisconsin Avenue, Suite 120
Brookfield, WI 53005
Phone: (262) 264-5665
Web: probstgroup.com

WATER QUALITY TRADING – FIELD QUESTIONAIRE

To: Jim Fischer – Wisconsin Whey Protein
From: Lynn Morrison, P.E. – The Probst Group
Date: May 17, 2018

Wisconsin Whey Protein intends to enter into a long-term lease with the current landowner with potential to buy the fields at the end of the lease. The land is 3 parcels in Lafayette County, WI near the Darlington production facility.

- 010.0308.1000 12 Acres
- 010.0309.1000 17.5 Acres
- 010.0309.2000 22.5 Acres



The potentially viable land to be used for Water Quality Trading is shown on the map below along with the approximate potentially tradeable acres. Final acreage will be determined in the field as WQT Planning progresses

- A 17.9 Acres
- B 15.8 Acres

Several variables can impact the acreage required for trading. An increase in acreage converted to protective practices (prairie restoration, waterway setbacks, grassed waterways, etc.) results in an increase in operational flexibility to ensure compliance with the final phosphorus limit.

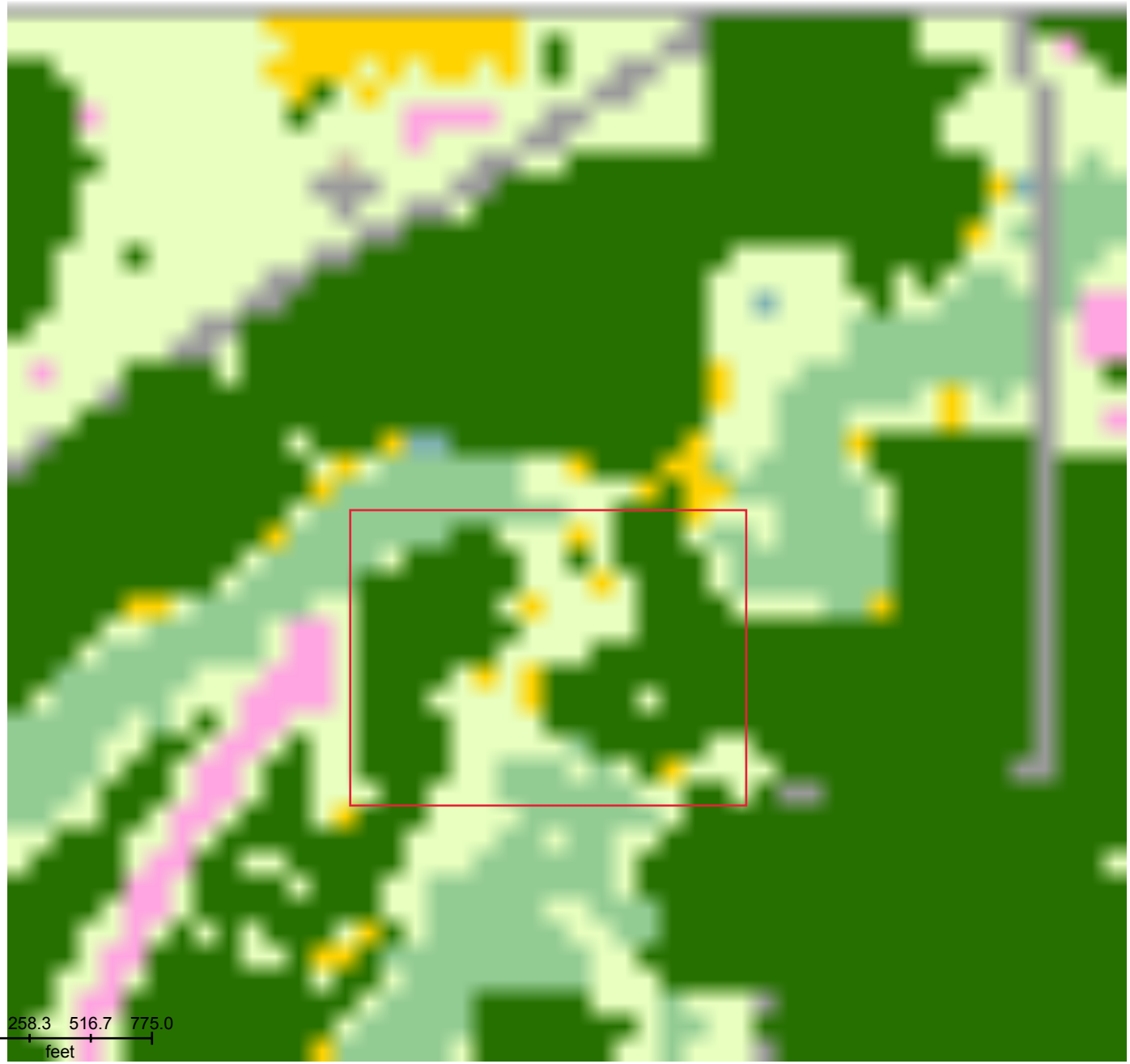
Please fill in the table below with cropping and nutrient application practices for the past few years. This information will be used to complete SnapPlus modeling which will be an important aspect of the Water Quality Trading Plan.

Field	A	B
Nutrient Management Plan available?	No	No
2017 crop & estimated yield	Corn +/- 207	Corn +/- 207
2016 crop & estimated yield	Soybeans +/- 65	Soybeans +/- 65
2015 crop & estimated yield	Corn +/- 212	Corn +/- 212
2014 crop & estimated yield	Soybeans +/- 60	Soybeans +/- 60
2017 fertilizer (incl. quantity)	120 lb/ac N	120 lb/ac N
2016 fertilizer (incl. quantity)	120 lb/ac N	120 lb/ac N
2015 fertilizer (incl. quantity)	120 lb/ac N	120 lb/ac N
2014 fertilizer (incl. quantity)	120 lb/ac N	120 lb/ac N
2017 manure quantity	Beef penpack 5 ton/ac and Turkey Litter 800 lb/ac	Beef penpack 5 ton/ac and Turkey Litter 800 lb/ac
2016 manure quantity	Turkey Litter 800 lb/ac	Turkey Litter 800 lb/ac
2015 manure quantity	Beef penpack 5 ton/ac and Turkey Litter 800 lb/ac	Beef penpack 5 ton/ac and Turkey Litter 800 lb/ac
2014 manure quantity	Turkey Litter 800 lb/ac	Turkey Litter 800 lb/ac
Is manure incorporated?	Yes	Yes
Irrigated?	No	No
2017 tilling[1]	Spring Vertical Tillage	Spring Vertical Tillage
2016 tilling[1]	No Till	No Till
2015 tilling[1]	Spring Vertical Tillage	Spring Vertical Tillage
2014 tilling[1]	No Till	No Till

[1]Choose one of the following:

- Fall chiseled, disked
- Fall chiseled, no disked
- Fall cultivated
- Fall MB Plow
- Fall vertical tillage
- No Till
- Spring chiseled, disked
- Spring chiseled, no disked
- Spring cultivated
- Spring MB Plow
- Spring vertical tillage

Wisconsin Whey Protein CDL 2014



Land Cover Categories

(by decreasing acreage)

AGRICULTURE

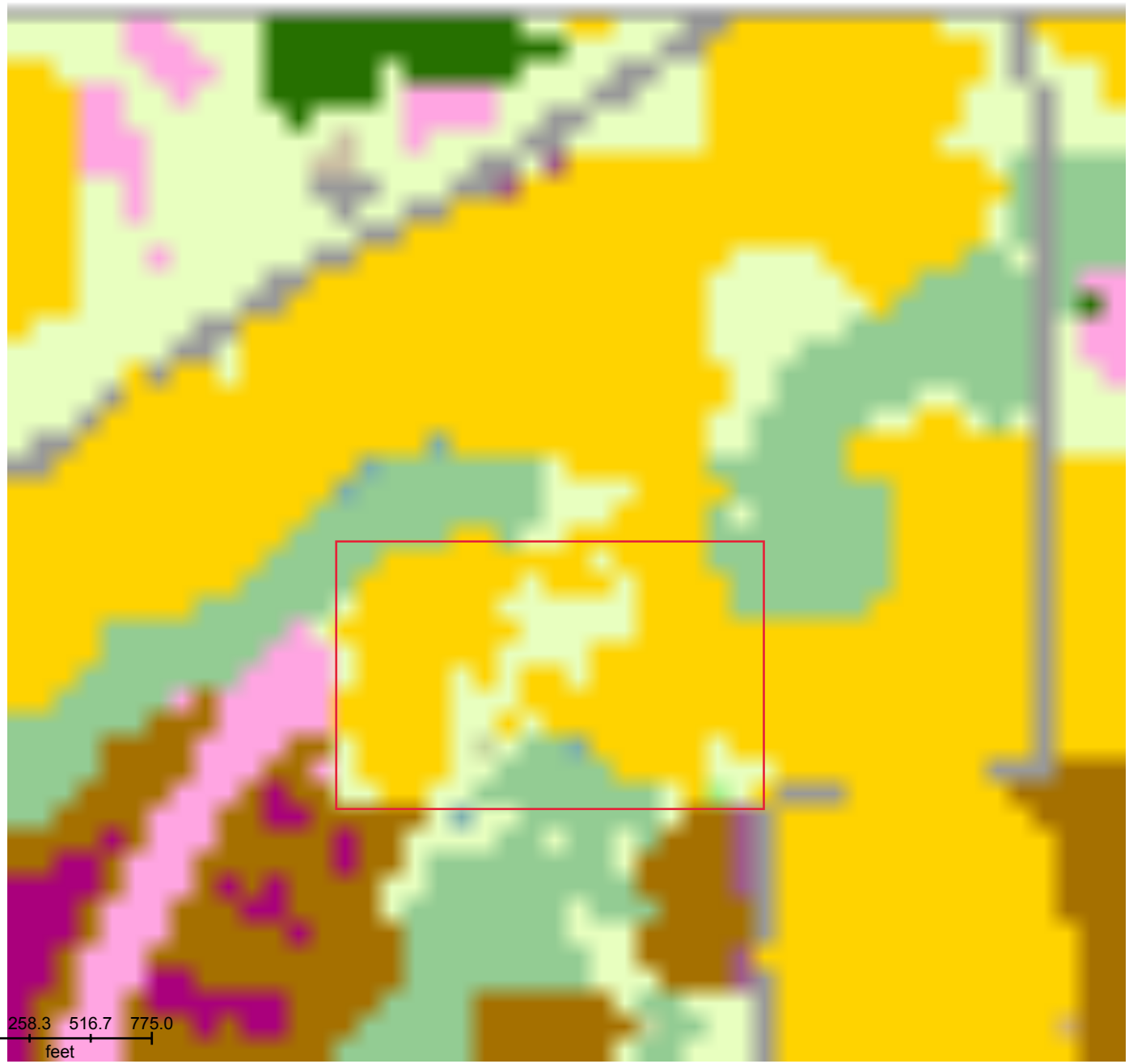
- Soybeans
- Grass/Pasture
- Corn
- Alfalfa

NON-AGRICULTURE*

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

* Only top 6 non-agriculturecategories are listed.

Wisconsin Whey Protein CDL 2015



Land Cover Categories

(by decreasing acreage)

AGRICULTURE

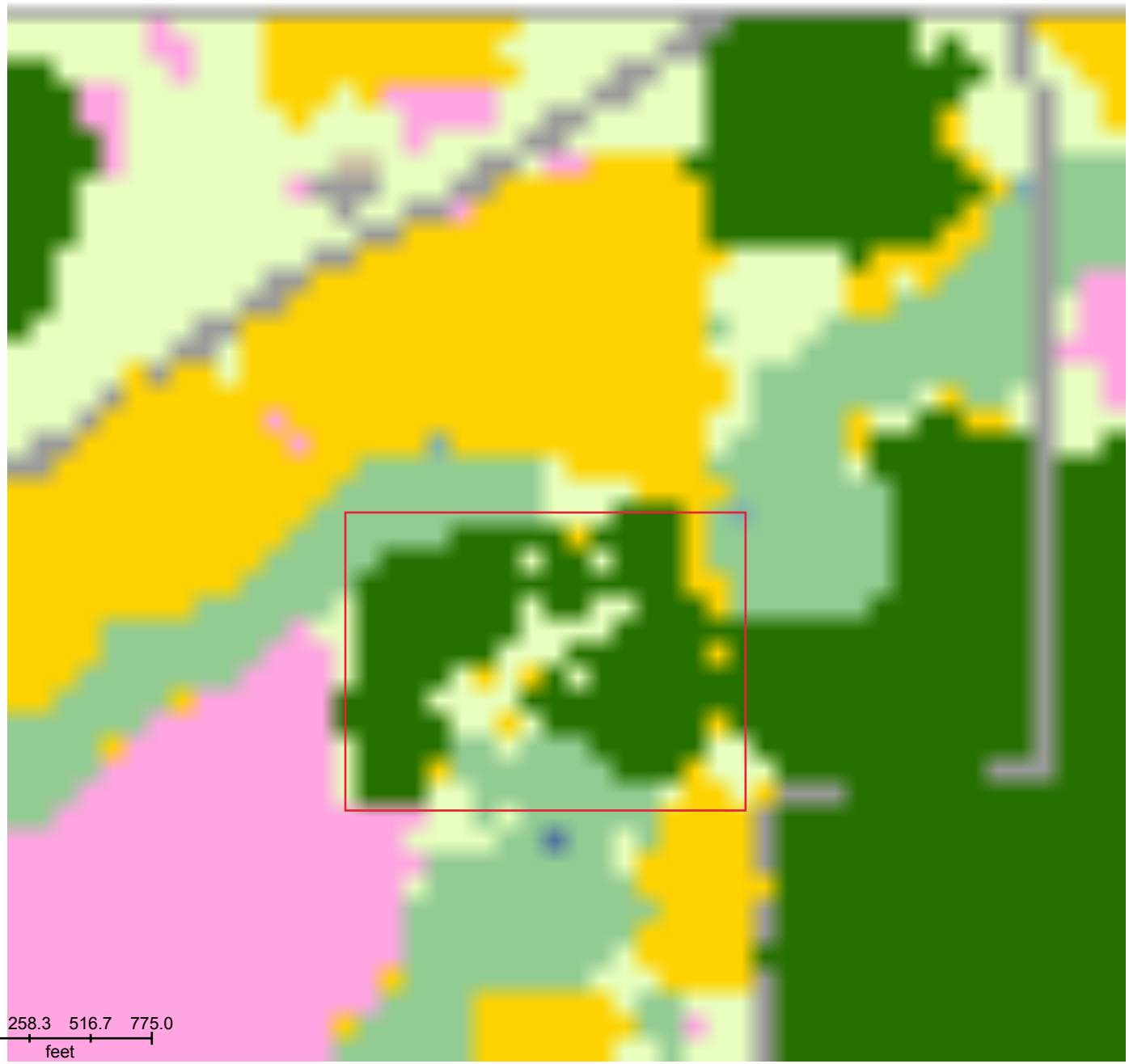
- Corn
- Grass/Pasture
- Winter Wheat
- Alfalfa
- Rye
- Soybeans
- Oats
- Other Hay/Non Alfalfa
- Spring Wheat

NON-AGRICULTURE*

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

* Only top 6 non-agriculturecategories are listed.

Wisconsin Whey Protein CDL 2016



Land Cover Categories

(by decreasing acreage)

AGRICULTURE

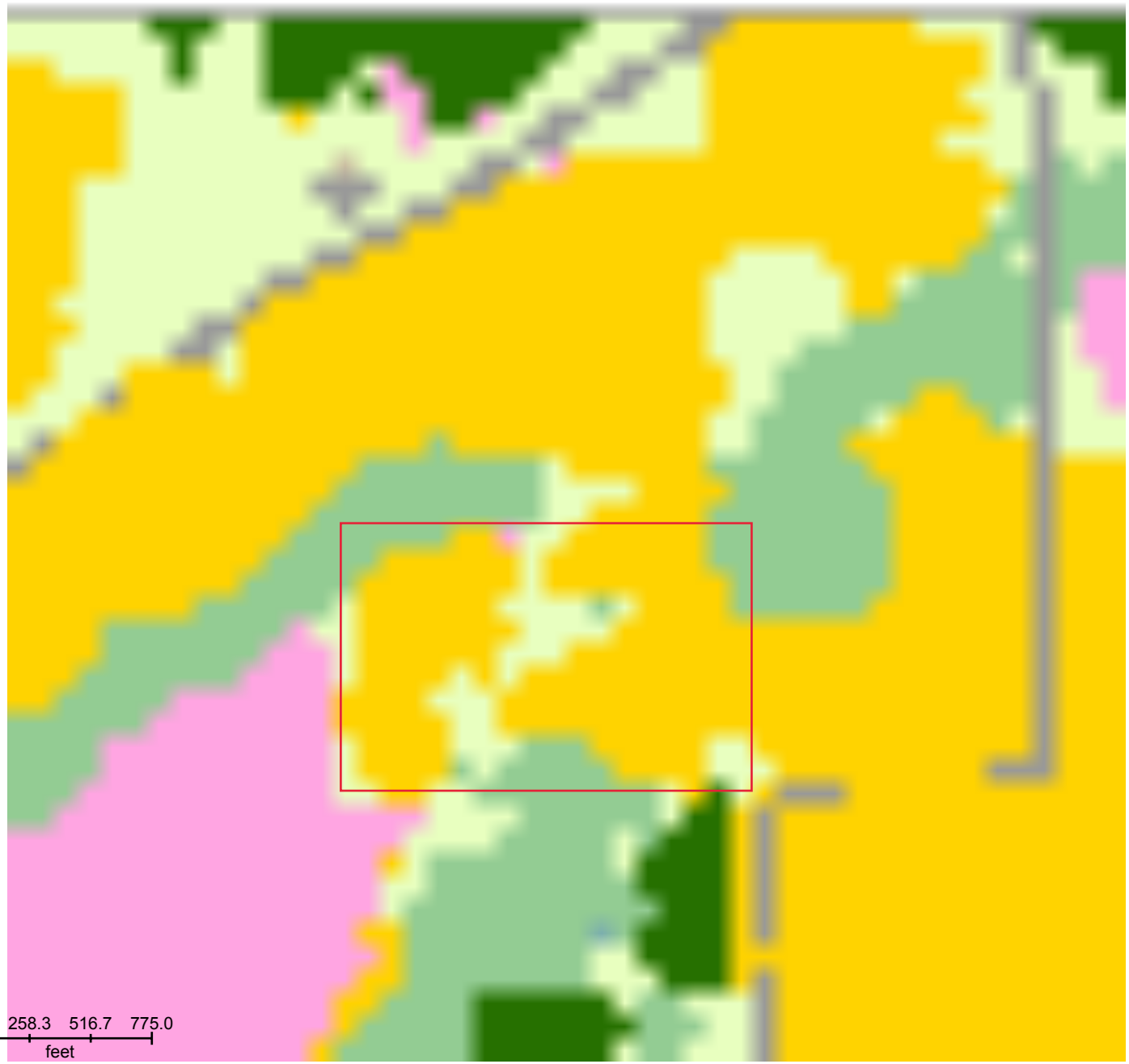
- Soybeans
- Corn
- Grass/Pasture
- Alfalfa

NON-AGRICULTURE*

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

* Only top 6 non-agriculturecategories are listed.

Wisconsin Whey Protein CDL 2017



Land Cover Categories

(by decreasing acreage)

AGRICULTURE

- Corn
- Grass/Pasture
- Alfalfa
- Soybeans

NON-AGRICULTURE*

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

* Only top 6 non-agriculturecategories are listed.

ATTACHMENT E

Soil Sampling Results

WISCONSIN WHEY PROTEIN - DARLINGTON
WATER QUALITY TRADE FIELDS

N
W E
S

SOIL SAMPLING MAP
SCALE: N.T.S.

PRELIMINARY

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

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VERIFY SCALES
0 1"
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

WISCONSIN WHEY PROTEIN
DARLINGTON, WI
WASTE WATER TREATMENT PLANT
SOIL SAMPLING MAP

REVISIONS

NO.	DATE

DRAWN BY:	MJM
CHK'D BY:	----
PROJ. ENG:	MP
ISSUE DATE:	5-21-18

PROJECT NUMBER:
5200.03

SHEET
SM-1

W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP\Drawings\Revisions\Soil Sampling Map.dwg

5-21-2018

Attachment E
Soil Sampling Results

LabID	Lab Smpl ID	Smpl Date	FarmName	FSA Farm	Field Name	Approx Size	Plow Depth	Soil Smpl ID	PH	OM	P	K	Ca	Mg	CEC	B	Mn	Z	S	Cu	Fe	BpH
Soil & Forage Analysis Lab	1814	4/12/2018	WWP WQT		A	17.9	8	1	6.2	2.5	8	44										6.9
Soil & Forage Analysis Lab	1814	4/12/2018	WWP WQT		A	17.9	8	2	6.2	2.6	9	37										7
Soil & Forage Analysis Lab	1814	4/12/2018	WWP WQT		A	17.9	8	3	6.8	2.9	10	58										
Soil & Forage Analysis Lab	1814	4/12/2018	WWP WQT		A	17.9	8	4	5.9	3.2	16	52										6.7
Soil & Forage Analysis Lab	1814	4/12/2018	WWP WQT		B	15.8	8	1	6.5	3	43	121										7
Soil & Forage Analysis Lab	1814	4/12/2018	WWP WQT		B	15.8	8	2	6.9	3.3	31	79										
Soil & Forage Analysis Lab	1814	4/12/2018	WWP WQT		B	15.8	8	3	6.5	2.9	19	62										7

ATTACHMENT F

SnapPlus Modeling Reports (Current)

SnapPlus Narrative and Crops Report

Starting Year	**2014**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Farm has 2 fields totalling 34.3 acres
Farm Narrative: None
Concentrated Flow Notes: None

Field Name	Acres	2014	2015	2016	2017	2018	2019	2020	2021
A	17.9	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre
B	16.4	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre

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

Crops Grouped By Category		2014	2015	2016	2017	2018	2019	2020	2021
Corn grain	Acres bu		34 6,817		34 6,817		34 6,817		34 6,817
Soybeans 15-20 inch row	Acres bu	34 2,057		34 2,057		34 2,057		34 2,057	

SnapPlus Narrative and Crops Report

Starting Year	**2022**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Farm has 2 fields totalling 34.3 acres
Farm Narrative: None
Concentrated Flow Notes: None

Field Name	Acres	2022	2023
A	17.9	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre
B	16.4	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre

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

Crops Grouped By Category		2022	2023
Corn grain	Acres bu		34 6,817
Soybeans 15-20 inch row	Acres bu	34 2,057	

SnapPlus Soil Test Report

Reported For	Wisconsin Whey Protein
Printed	2018-05-31
Plan Completion/Update Date	2018-05-03
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

			Predominant					Samples				in ppm			
Field Name	Subfarm	Acres	Soil Map Symbol	Soil Name	Soil Test Date	Soil Test Lab	Lab Number	Rec. #	Actual #	pH	OM%	P	K	S	CEC
A		17.9	DsD2	NEWGLARUS	2018-04-12	Soil & Forage Analysis Lab	1814	**4**	**4**	6.3	2.8	9	48	0	0
B		16.4	PaC2	PALSGROVE	2018-04-12	Soil & Forage Analysis Lab	1814	**3**	**3**	6.6	3.1	25	71	0	0

Crop Year Soil Test Needed

Field Name	Soil Test Date	2018	2019	2020	2021	2022	2023	2024
A	2018-04-12					X		
B	2018-04-12					X		

SnapPlus Application Summary Report

Starting Year	**2014**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Annual Manure Production And Use By Source

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

Source		2014	2015	2016	2017	2018	2019	2020
Manure Pen Pack	Production (Tons)	0	0	0	0	0	0	0
	Used (Tons)	0	172	0	172	0	172	0
	Analysis Date	-	-	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10
	Dry Matter (%)	29	29	29	29	29	29	29
	Total Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Turkey Litter	Production (Tons)	0	0	0	0	0	0	0
	Used (Tons)	14	14	14	14	14	14	14
	Analysis Date	-	-	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25
	Dry Matter (%)	59	59	59	59	59	59	59
	Total Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Application Results Reported For Farm All

Source		2021
Manure Pen Pack	Production (Tons) Used (Tons) Analysis Date Analysis (N/Ninc/Ninj-P2O5-K2O) Dry Matter (%) Total Value	0 172 - 3/4/5-6-10 29 0.00
Turkey Litter	Production (Tons) Used (Tons) Analysis Date Analysis (N/Ninc/Ninj-P2O5-K2O) Dry Matter (%) Total Value	0 14 - 26/28/31-35-25 59 0.00

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

		2014	2015	2016	2017	2018	2019	2020
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)	N	377	1,063	377	1,063	377	1,063	377
	P2O5	480	1,509	480	1,509	480	1,509	480
	K2O	343	2,058	343	2,058	343	2,058	343
Total Fertilizer Nutrients Applied (lb)	N	0	0	0	0	0	0	0
	P2O5	0	0	0	0	0	0	0
	K2O	0	0	0	0	0	0	0
Total Crop Removal (lb)	P2O5	1,715	2,573	1,715	2,573	1,715	2,573	1,715
	K2O	2,915	2,058	2,915	2,058	2,915	2,058	2,915
Nutrient Balance (Applied - Crop removal, lb)	P2O5	-1,235	-1,063	-1,235	-1,063	-1,235	-1,063	-1,235
	K2O	-2,572	0	-2,572	0	-2,572	0	-2,572

Annual Pounds Of Available N, P2O5 And K2O Applied From Manure and Fertilizer.		
		2021
Produced from Manure (lb)	Ninj P2O5 K2O	0 0 0
Total Available Manure Nutrients Applied (lb)	N P2O5 K2O	1,063 1,509 2,058
Total Fertilizer Nutrients Applied (lb)	N P2O5 K2O	0 0 0
Total Crop Removal (lb)	P2O5 K2O	2,573 2,058
Nutrient Balance (Applied - Crop removal, lb)	P2O5 K2O	-1,063 0

SnapPlus Application Summary Report

Starting Year	**2022**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Annual Manure Production And Use By Source

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

Source		2022	2023
Manure Pen Pack	Production (Tons)	0	0
	Used (Tons)	0	172
	Analysis Date	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	3/4/5-6-10	3/4/5-6-10
	Dry Matter (%)	29	29
	Total Value	0.00	0.00
Turkey Litter	Production (Tons)	0	0
	Used (Tons)	14	14
	Analysis Date	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	26/28/31-35-25	26/28/31-35-25
	Dry Matter (%)	59	59
	Total Value	0.00	0.00

Application Results Reported For Farm All

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

		2022	2023
Produced from Manure (lb)	Ninj P2O5 K2O	0 0 0	0 0 0
Total Available Manure Nutrients Applied (lb)	N P2O5 K2O	377 480 343	1,063 1,509 2,058
Total Fertilizer Nutrients Applied (lb)	N P2O5 K2O	0 0 0	0 0 0
Total Crop Removal (lb)	P2O5 K2O	1,715 2,915	2,573 2,058
Nutrient Balance (Applied - Crop removal, lb)	P2O5 K2O	-1,235 -2,572	-1,063 0

SnapPlus Manure Tracking Report

Starting Year	**2014**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Acres/ CropYear	2014	2015	2016	2017	2018	2019	2020	2021
Acres in plan	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
Acres receiving manure	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3

Annual Manure Production And Use By Source

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

Source		2014	2015	2016	2017	2018	2019	2020	2021
Manure Pen Pack	Production (Tons)	0	0	0	0	0	0	0	0
	Used (Tons)	0	172	0	172	0	172	0	172
	Analysis Date	-	-	-	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10
	Dry Matter (%)	29	29	29	29	29	29	29	29
	Total Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Turkey Litter	Production (Tons)	0	0	0	0	0	0	0	0
	Used (Tons)	14	14	14	14	14	14	14	14
	Analysis Date	-	-	-	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25
	Dry Matter (%)	59	59	59	59	59	59	59	59
	Total Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Estimated Livestock Manure Production For 2014

No Livestock Found

Manure Storage For 2014

No Storages Found

Spreaders For 2014

No Spreaders Found

SnapPlus Manure Tracking Report

Starting Year	**2022**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Acres/ CropYear	2022	2023
Acres in plan	34.3	34.3
Acres receiving manure	34.3	34.3

Annual Manure Production And Use By Source

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

Source		2022	2023
Manure Pen Pack	Production (Tons)	0	0
	Used (Tons)	0	172
	Analysis Date	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	3/4/5-6-10	3/4/5-6-10
	Dry Matter (%)	29	29
	Total Value	0.00	0.00
Turkey Litter	Production (Tons)	0	0
	Used (Tons)	14	14
	Analysis Date	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	26/28/31-35-25	26/28/31-35-25
	Dry Matter (%)	59	59
	Total Value	0.00	0.00

Estimated Livestock Manure Production For 2022

No Livestock Found

Manure Storage For 2022

No Storages Found

Spreaders For 2022

No Spreaders Found

SnapPlus Field Data and 590 Assessment Plan

Reported For	Wisconsin Whey Protein
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field Data: 34 Total Acres Reported.

Field Name	SubFarm	FSA Trct	FSA Fld	Acres	County	Critical Soil Series & Symbol	F. Slp %	F.Slp Len ft	Below Field Slope To Water %	Dist.To Water ft	N/Fld Res	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
A				17.9	Lafayette	NEWGLARUS DsD2	16	100	0 - 2	0 - 300	S %	No / No	No	No	Sg15-Cg	NT-SVT	2014-2015	**2**	**9.5**	**0.0**	**9**	9	-67	-
B				16.4	Lafayette	PALSGROVE PaC2	9	150	0 - 2	0 - 300	S %	No / No	No	No	Sg15-Cg	NT-SVT	2014-2015	**3**	**5.1**	**0.4**	**6**	25	-67	-

Crop Abbreviations	
Abbreviation	**Crop**
Cg	Corn grain
Sg15	Soybeans 15-20 inch row

Tillage Abbreviations	
Abbreviation	**Tillage**
NT	No Till
SVT	Spring vertical tillage

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 200 feet upslope of field.
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.

SnapPlus Nutrient Management Report

Crop Year	**2015**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field data: 34 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	2014 Crop	2015 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
A	17.9	NEWGLARUS DsD2	9	48	Soybeans 15-20 inch row	Corn grain	191-210	Spring vertical tillage	130 0.05 /MRTN	115	105	31	44	60	-99	-71	-45
B	16.4	PALSGROVE PaC2	25	71	Soybeans 15-20 inch row	Corn grain	191-210	Spring vertical tillage	140 0.05 /MRTN	40	90	31	44	60	-109	4	-30

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 200 feet upslope of field.
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.

SnapPlus Nutrient Management Report

Crop Year	**2016**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field data: 34 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2015 Crop	2016 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
A	17.9	NEWGLARUS DsD2	9	48	Corn grain	Soybeans 15-20 inch row	56-65	No Till	0	90	130	11	14	10	11	-76	-120
B	16.4	PALSGROVE PaC2	25	71	Corn grain	Soybeans 15-20 inch row	56-65	No Till	0	21	115	11	14	10	11	-7	-105

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 200 feet upslope of field.
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.

SnapPlus P Trade Report

Reported For	Wisconsin Whey Protein
Printed	2018-05-31
Plan Completion/Update Date	2018-05-03
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Current.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

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

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

Questions? Please contact DNRphosphorus@wisconsin.gov

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

P Trade Report				PTP									
Field Name	Soil Series	Soil Symbol	Acres	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
A	NEWGLARUS	DsD2	18	101	219	99	217	97	211	96	211	96	211
B	PALSGROVE	PaC2	16	63	125	61	124	61	121	60	119	59	118
Total			**34**	**164**	**344**	**160**	**341**	**158**	**332**	**156**	**330**	**155**	**329**

ATTACHMENT G

SnapPlus Modeling Reports (Prairie)

SnapPlus Narrative and Crops Report

Starting Year	**2014**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Farm has 2 fields totalling 34.3 acres
Farm Narrative: None
Concentrated Flow Notes: None

Field Name	Acres	2014	2015	2016	2017	2018	2019	2020	2021
A	17.9	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre
B	16.4	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Soybeans 15-20 inch row No Till 56-65 bu/acre	Corn grain Spring vertical tillage 191-210 bu/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre

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

Crops Grouped By Category		2014	2015	2016	2017	2018	2019	2020	2021
Corn grain	Acres bu		34 6,817		34 6,817				
Grasslands, permanent, not harvested	Acres none					34 0	34 0	34 0	34 0
Soybeans 15-20 inch row	Acres bu	34 2,057		34 2,057					

SnapPlus Narrative and Crops Report

Starting Year	**2022**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Farm has 2 fields totalling 34.3 acres
Farm Narrative: None
Concentrated Flow Notes: None

Field Name	Acres	2022	2023
A	17.9	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre
B	16.4	Grasslands, permanent, not harvested None 0-0 none/acre	Grasslands, permanent, not harvested None 0-0 none/acre

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

Crops Grouped By Category		2022	2023
Grasslands, permanent, not harvested	Acres none	34 0	34 0

SnapPlus Soil Test Report

Reported For	Wisconsin Whey Protein
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

			Predominant					Samples				in ppm			
Field Name	Subfarm	Acres	Soil Map Symbol	Soil Name	Soil Test Date	Soil Test Lab	Lab Number	Rec. #	Actual #	pH	OM%	P	K	S	CEC
A		17.9	DsD2	NEWGLARUS	2018-04-12	Soil & Forage Analysis Lab	1814	**4**	**4**	6.3	2.8	9	48	0	0
B		16.4	PaC2	PALSGROVE	2018-04-12	Soil & Forage Analysis Lab	1814	**3**	**3**	6.6	3.1	25	71	0	0

Crop Year Soil Test Needed

Field Name	Soil Test Date	2018	2019	2020	2021	2022	2023	2024
A	2018-04-12					X		
B	2018-04-12					X		

SnapPlus Application Summary Report

Starting Year	**2014**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Annual Manure Production And Use By Source

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

Source		2014	2015	2016	2017	2018	2019	2020
Manure Pen Pack	Production (Tons)	0	0	0	0	0	0	0
	Used (Tons)	0	172	0	172	0	0	0
	Analysis Date	-	-	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10
	Dry Matter (%)	29	29	29	29	29	29	29
	Total Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Turkey Litter	Production (Tons)	0	0	0	0	0	0	0
	Used (Tons)	14	14	14	14	0	0	0
	Analysis Date	-	-	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25
	Dry Matter (%)	59	59	59	59	59	59	59
	Total Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Application Results Reported For Farm All

Source		2021
Manure Pen Pack	Production (Tons) Used (Tons) Analysis Date Analysis (N/Ninc/Ninj-P2O5-K2O) Dry Matter (%) Total Value	0 0 - 3/4/5-6-10 29 0.00
Turkey Litter	Production (Tons) Used (Tons) Analysis Date Analysis (N/Ninc/Ninj-P2O5-K2O) Dry Matter (%) Total Value	0 0 - 26/28/31-35-25 59 0.00

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

		2014	2015	2016	2017	2018	2019	2020
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)	N	377	1,063	377	1,063	0	0	0
	P2O5	480	1,509	480	1,509	0	0	0
	K2O	343	2,058	343	2,058	0	0	0
Total Fertilizer Nutrients Applied (lb)	N	0	0	0	0	0	0	0
	P2O5	0	0	0	0	0	0	0
	K2O	0	0	0	0	0	0	0
Total Crop Removal (lb)	P2O5	1,715	2,573	1,715	2,573	0	0	0
	K2O	2,915	2,058	2,915	2,058	0	0	0
Nutrient Balance (Applied - Crop removal, lb)	P2O5	-1,235	-1,063	-1,235	-1,063	0	0	0
	K2O	-2,572	0	-2,572	0	0	0	0

Annual Pounds Of Available N, P2O5 And K2O Applied From Manure and Fertilizer.		
		2021
Produced from Manure (lb)	Ninj P2O5 K2O	0 0 0
Total Available Manure Nutrients Applied (lb)	N P2O5 K2O	0 0 0
Total Fertilizer Nutrients Applied (lb)	N P2O5 K2O	0 0 0
Total Crop Removal (lb)	P2O5 K2O	0 0
Nutrient Balance (Applied - Crop removal, lb)	P2O5 K2O	0 0

SnapPlus Application Summary Report

Starting Year	**2022**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Annual Manure Production And Use By Source

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

Source		2022	2023
Manure Pen Pack	Production (Tons)	0	0
	Used (Tons)	0	0
	Analysis Date	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	3/4/5-6-10	3/4/5-6-10
	Dry Matter (%)	29	29
	Total Value	0.00	0.00
Turkey Litter	Production (Tons)	0	0
	Used (Tons)	0	0
	Analysis Date	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	26/28/31-35-25	26/28/31-35-25
	Dry Matter (%)	59	59
	Total Value	0.00	0.00

Application Results Reported For Farm All

Annual Pounds Of Available N, P2O5 And K2O Applied From Manure and Fertilizer.			
		2022	**2023**
Produced from Manure (lb)	Ninj P2O5 K2O	0 0 0	0 0 0
Total Available Manure Nutrients Applied (lb)	N P2O5 K2O	0 0 0	0 0 0
Total Fertilizer Nutrients Applied (lb)	N P2O5 K2O	0 0 0	0 0 0
Total Crop Removal (lb)	P2O5 K2O	0 0	0 0
Nutrient Balance (Applied - Crop removal, lb)	P2O5 K2O	0 0	0 0

SnapPlus Manure Tracking Report

Starting Year	**2014**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Acres/ CropYear	2014	2015	2016	2017	2018	2019	2020	2021
Acres in plan	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
Acres receiving manure	34.3	34.3	34.3	34.3	0.0	0.0	0.0	0.0

Annual Manure Production And Use By Source

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

Source		2014	2015	2016	2017	2018	2019	2020	2021
Manure Pen Pack	Production (Tons)	0	0	0	0	0	0	0	0
	Used (Tons)	0	172	0	172	0	0	0	0
	Analysis Date	-	-	-	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10	3/4/5-6-10
	Dry Matter (%)	29	29	29	29	29	29	29	29
	Total Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Turkey Litter	Production (Tons)	0	0	0	0	0	0	0	0
	Used (Tons)	14	14	14	14	0	0	0	0
	Analysis Date	-	-	-	-	-	-	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25	26/28/31-35-25
	Dry Matter (%)	59	59	59	59	59	59	59	59
	Total Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Estimated Livestock Manure Production For 2018

No Livestock Found

Manure Storage For 2018

No Storages Found

Spreaders For 2018

No Spreaders Found

SnapPlus Manure Tracking Report

Starting Year	**2022**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date:	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Acres/ CropYear	2022	2023
Acres in plan	34.3	34.3
Acres receiving manure	0.0	0.0

Annual Manure Production And Use By Source

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

Source		2022	2023
Manure Pen Pack	Production (Tons)	0	0
	Used (Tons)	0	0
	Analysis Date	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	3/4/5-6-10	3/4/5-6-10
	Dry Matter (%)	29	29
	Total Value	0.00	0.00
Turkey Litter	Production (Tons)	0	0
	Used (Tons)	0	0
	Analysis Date	-	-
	Analysis (N/Ninc/Ninj-P2O5-K2O)	26/28/31-35-25	26/28/31-35-25
	Dry Matter (%)	59	59
	Total Value	0.00	0.00

Estimated Livestock Manure Production For 2022

No Livestock Found

Manure Storage For 2022

No Storages Found

Spreaders For 2022

No Spreaders Found

SnapPlus Field Data and 590 Assessment Plan

Reported For	Wisconsin Whey Protein
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field Data: 34 Total Acres Reported.

Field Name	SubFarm	FSA Trct	FSA Fld	Acres	County	Critical Soil Series & Symbol	F. Slp %	F.Slp Len ft	Below Field Slope To Water %	Dist.To Water ft	N/Fld Res	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
A				17.9	Lafayette	NEWGLARUS DsD2	16	100	0 - 2	0 - 300	S %	No / No	No	No	Gnh-Gnh	None-None	2018-2019	**2**	**0**	**1.5**	**0**	9	0	-
B				16.4	Lafayette	PALSGROVE PaC2	9	150	0 - 2	0 - 300	S %	No / No	No	No	Gnh-Gnh	None-None	2018-2019	**3**	**0**	**1.5**	**0**	25	0	-

Crop Abbreviations

Abbreviation	Crop
Gnh	Grasslands, permanent, not harvested

Tillage Abbreviations

Abbreviation	Tillage
None	None

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 200 feet upslope of field.
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.

SnapPlus Nutrient Management Report

Crop Year	**2015**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field data: 34 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	2014 Crop	2015 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
A	17.9	NEWGLARUS DsD2	9	48	Soybeans 15-20 inch row	Corn grain	191-210	Spring vertical tillage	130 0.05 /MRTN	115	105	31	44	60	-99	-71	-45
B	16.4	PALSGROVE PaC2	25	71	Soybeans 15-20 inch row	Corn grain	191-210	Spring vertical tillage	140 0.05 /MRTN	40	90	31	44	60	-109	4	-30

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 200 feet upslope of field.
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.

SnapPlus Nutrient Management Report

Crop Year	**2016**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field data: 34 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2015 Crop	2016 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
A	17.9	NEWGLARUS DsD2	9	48	Corn grain	Soybeans 15-20 inch row	56-65	No Till	0	90	130	11	14	10	11	-76	-120
B	16.4	PALSGROVE PaC2	25	71	Corn grain	Soybeans 15-20 inch row	56-65	No Till	0	21	115	11	14	10	11	-7	-105

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 200 feet upslope of field.
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.

SnapPlus Nutrient Management Report

Crop Year	**2017**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field data: 34 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2016 Crop	2017 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
A	17.9	NEWGLARUS DsD2	9	48	Soybeans 15-20 inch row	Corn grain	191-210	Spring vertical tillage	130 0.05 /MRTN	115	105	31	44	60	-99	-71	-45
B	16.4	PALSGROVE PaC2	25	71	Soybeans 15-20 inch row	Corn grain	191-210	Spring vertical tillage	140 0.05 /MRTN	40	90	31	44	60	-109	4	-30

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 200 feet upslope of field.
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.

SnapPlus Nutrient Management Report

Crop Year	**2018**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field data: 34 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2017 Crop	2018 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
A	17.9	NEWGLARUS DsD2	9	48	Corn grain	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
B	16.4	PALSGROVE PaC2	25	71	Corn grain	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 200 feet upslope of field.
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.

SnapPlus Nutrient Management Report

Crop Year	**2019**
Reported For	**Wisconsin Whey Protein**
Printed	**2018-05-31**
Plan Completion/Update Date	**2018-05-03**
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

Field data: 34 total acres reported.

Field Data			Soil Test ppm		Crop Data				Recommendations			Planned Applications and Credits			Over(+)/Under(-) UW Recs		
Field Name	Ac	Predominant Soil and N Restrictions	Avg P	Avg K	2018 Crop	2019 Crop	Yield Goal	Tillage	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac	N lb/ac	P2O5 lb/ac	K2O lb/ac
A	17.9	NEWGLARUS DsD2	9	48	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0
B	16.4	PALSGROVE PaC2	25	71	Grasslands, permanent, not harvested	Grasslands, permanent, not harvested	0-0	None	0	0	0	0	0	0	0	0	0

Restriction Legend

Code	Description of Code
S	Field is in SWQMA
D	Drinking water well within 50 feet of field.
C	Conduit to groundwater within 200 feet upslope of field.
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.

SnapPlus P Trade Report

Reported For	Wisconsin Whey Protein
Printed	2018-05-31
Plan Completion/Update Date	2018-05-03
SnapPlus Version 16.3 built on 2016-10-31	
W:\Clients\Wisconsin Whey Protein\Darlington, WI\5200_New WWTP \Permitting & Regulations\WQT\Wisconsin Whey Protein Future.snapDb	

Prepared for:
Wisconsin Whey Protein
attn:Wisconsin Whey Protein

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

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

Questions? Please contact DNRphosphorus@wisconsin.gov

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

P Trade Report				PTP									
Field Name	Soil Series	Soil Symbol	Acres	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
A	NEWGLARUS	DsD2	18	101	219	13	4	2	1	1	1	1	1
B	PALSGROVE	PaC2	16	63	125	10	4	3	3	2	2	2	2
Total			**34**	**164**	**344**	**22**	**9**	**5**	**4**	**3**	**3**	**3**	**3**

ATTACHMENT H

"Practice Registration Form" 3400-207

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

Water Quality Trading Management Practice Registration

Form 3400-207 (R 1/14)

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

Applicant Information

Permittee Name	Permit Number	Facility Site Number
Wisconsin Whey Protein	WI- 0066371-01-0	

Facility Address	City	State	ZIP Code
160 Christensen Drive	Darlington	WI	53530

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

Project Name
Wisconsin Whey Protein Water Quality Trade

Broker/Exchange Information (if applicable)

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

Broker/Exchange Organization Name	Contact Name	
Address	Phone Number	Email

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

Type	Trade Agreement Number	Practices Used to Generate Credits	Anticipated Load Reduction		Trade Ratio	Method of Quantification
○ Urban NPS ◉ Agricultural NPS ○ Other	WQT-20180712	Conversion of farmland to natural prairie per NRCS 327	2018	28.69	1.2:1	SnapPlus V2 (version 16.3.16306.1328)
			2019	276.57		
			2020	126.98		
			2021	273.18		
			2022	126.92		
			2023	272.53		

County	Closest Receiving Water Name	Land Parcel ID(s)	Parameter(s) being traded
Lafayette	Unnamed Trib (WBIC 921500)	010.0308.1000, 010.0309.1000 010.0309.2000	Phosphorus

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
[signature]	7/12/2018

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
[signature]	7/13/2018

Leave Blank – For Department Use Only

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

ATTACHMENT I

Prairie Establishment Plan

Wisconsin Whey Prairie Plantings
Darlington, Wisconsin Site
Establishment Plan

This Establishment Plan was developed to establish permanent conservation cover consistent with the requirements and recommendations of NRCS Technical Standard 327. The primary purpose of the installation of conservation cover at the sites is to reduce downstream surface water quality degradation by nutrients and sedimentation.

Soil Preparation

The site was planted with corn in 2017. In May of 2018 it was disced and cultipacked. If necessary, weeds will be sprayed with glyphosate and 2,4-D a week prior to planting.

Seed Products

Seed, with the exception of cover crop, shall be species native to Iowa, Grant, Lafayette or Green counties, Wisconsin and from a genetic source within the Midwest. Species selected are known to grow in these counties as listed by the University of Wisconsin's state herbarium records. Seed provided shall be measured as pure live seed, properly labeled and shipped in accordance with Wisconsin law. The species chosen have been carefully selected to ensure they are adapted to the local soils, ecological conditions and climactic conditions of the region.

Two seeding mixes will be used to ensure that species planted are adapted to the particular area of the site where they will be installed. The seed mixes include a heavier seeding of grasses than is typical because the primary purpose of the conservation cover is to reduce downstream surface water quality degradation by nutrients and sedimentation and to ensure quick site stabilization. Further, each unit includes a fairly dense seeding of Elymus canadensis (Canada wild rye), which establishes quickly. Unlike the other prairie grass species, Elymus canadensis is a cool season grass that typically germinates more readily without stratification and will provide a secondary cover after the oat cover crop (described below) begins to senesce in the mid-summer. The remaining warm season grasses are slower to establish, but will eventually come to dominate the site and provide a permanent cover that, if properly maintained, will last indefinitely. These species have deep root systems and will completely stabilize the soil at maturity.

In order to ensure that the primary purpose of the conservation cover will be met, seed for native grass species in uplands will be applied at a minimum rate of 10 lbs/acre. The seed mix for the lowland zone will be at a lower rate. This zone, being quite wet, will receive a higher proportion of sedges. Sedge seed is smaller and therefore a smaller quantity by weight is needed. A total of 8.25 lbs of grass and sedge seed is specified for zone 2.

Oats will be seeded at a rate of 35 lbs/acre and used as a cover crop during the first year. Oats will be used as a cover crop because they germinate quickly and will provide ample cover within a few weeks. Other cover crop species have various drawbacks that oats do not have, such as an allelopathic effect (winter rye or winter wheat) and or they tend to persist longer than desired (annual rye).

The property has been broken into two units: Planting Zone 1 (higher and drier knolls), and Planting Zone 2 (lowland flat areas). In addition, a seed mix specifically designed to reduce erosion will be installed under erosion control blanket if and where required. The seed species and quantities are described below:

Planting Zone 1: These areas are on the top and sides of drier knolls. These areas have silt loam soils that are gently sloped and well drained. They will support and mesic prairie habitat.

Upland Units	24.3		ac		
Grasses and Sedges					
Scientific Name	*Common Name*		*Rate/Ac*	*Unit*	*Total Seed Qty*
Andropogon scoparius	Little Bluestem		3.000	lb	72.900
Bouteloua curtipendula	Side-oats Grama		2.000	lb	48.600
Andropogon gerardii	Big bluestem		0.500	lb	12.150
Sorghastrum nutans	Indiangrass		0.500	lb	12.150
Elymus canadensis	Canada Wild Rye		3.000	lb	72.900
Panicum virgatum	Switch Grass		1.000	lb	24.300
			10.000	lb	243.000

Planting Zone 2: This unit is at the bottom of the slope and is flat to slightly sloped. Soils are silt loam and poorly drained. The seed mix includes both mesic and wet mesic species with a bias toward wetter species than Zone 1.

Lowland Units	10.1	ac		
Grasses and Sedges				
Scientific Name	*Common Name*	*Rate/Ac*	*Unit*	*Total Seed Qty*
Andropogon scoparius	Little Bluestem	1.000	lb	10.100
Bouteloua curtipendula	Side-oats Grama	0.700	lb	7.070
Andropogon gerardii	Big bluestem	2.000	lb	20.200
Sorghastrum nutans	Indiangrass	1.000	lb	10.100
Carex brevior	Plains oval sedge	0.100	lb	1.010
Carex crinita	Fringed Sedge	0.100	lb	1.010
Carex vulpinoidea	Brown Fox Sedge	0.250	lb	2.525
Carex scoparia	Broom sedge	0.100	lb	1.010
Elymus canadensis	Canada Wild Rye	3.000	lb	30.300
Spartina pectinata	Cord grass	0.100	lb	1.010
Panicum virgatum	Switch Grass	2.000	lb	20.200
	Total grasses and sedges	*10.350*	lb	104.535

Woodland Augmentation Zone – 1.1 ac This zone will be shaded by the tree line to the south. The zone will be planted with the upland or lowland seed mix that overlays it. In addition, the woodland augmentation zone will also be planted with the following species:

Woodland Augmentation	1.1	ac		
Grasses and Sedges				
Scientific Name	*Common Name*	*Rate/Ac*	*Unit*	*Total Seed Qty*
Elymus virginicus	Virginia wild rye	3.000	lb	3.300
Elymus hystrix	Bottle brush grass	0.200	lb	0.220
Carex bicknellii	Bicknell's sedge	0.200	lb	0.220
Bromus ciliatus	Fringed Brome	0.500	lb	0.550
		3.900		*4.290*

Erosion Control: Any areas that are to receive type 1 and Type 2 erosion matting will be seeded with the seed mix that corresponds to the Planting Zone they are located in. Before installing the mat, seed from the species below will also be installed.

Scientific Name	*Common Name*	*Qty*	*Unit*	*Total Seed Qty*
Spartina pectinata	Cord grass	1.000	lb	1.000
Bromus ciliatus	Fringed brome	1.000	lb	1.000
Carex comosa	Bristly sedge	2.000	lb	1.000

The seeding mixes will be installed in the planting zones in accordance with the attached map.

Existing Grassed Swales

Grassed swales are currently stable and have been planted with cool season pasture grasses, perhaps smooth brome and orchard grass. In order to maintain stability, these swales will not be treated with herbicide, but seed for the zones in which they exist will be installed into the sod using a no till drill. We expect that the native species will eventually overtake the cool season pasture grasses as they mature and become dominant.

Plant Products

Live plants shall be 2" potted material or equivalent. Plants shall be well rooted and healthy, free of disease and kept well-watered while in transit and on site prior to planting.

Seed Installation

After soil preparation described above, seed will be planted prior to June 30, 2018 depending on site conditions. Seed will be installed using a no-till drill specifically manufactured for the purpose of planting prairie seed.

Erosion Control

At this time all swales are stable and have typical grassed waterway vegetation. Therefore, no erosion control activities are planned. However, if severe rill or gully erosion develops in any areas at any time, erosion matting will be placed per manufacturer's recommendations. Type 1 and Type 2 erosion mat may be used depending on the severity and slope of the erosion issue.

Type 1 is defined as: Class 1 Type A Urban (EG1SNN) is the single net straw with biodegradable net

- Single net straw: 100% straw with a single biodegradable jute netting. It is designed to provide erosion protection and assist with vegetation establishment for 8 to 12 months on slopes up to 3:1 and low-flow channels.

Type 2 is defined as: Class 1 Type B Urban (EG2SNN) is the double net straw with biodegradable nets

- Double net straw: 100% straw between two biodegradable jute nettings. It is designed to provide erosion control and assist with vegetation establishment assistance for 8 to 12 months on 2:1 to 3:1 slopes and in moderate-flow channels.

Seed Establishment Standards

Standards for 2018, the Year of Planting

- Germination of cover crop shall occur within 20 days of installation. Cover crop establishment shall be uniform and consistent. Any area of more than 1 square yard that is devoid of cover crop shall be reseeded within three weeks of installation.

- Germination of native grass species shall be apparent by mid-July. Areas of erosion where seed has likely been lost will be reseeded and appropriate erosion control measures applied.
- Establishment of native grasses should be consistent and widespread by the middle of September 2018, although seedlings are likely to be inconspicuous. Areas greater than 100 square yards that do not have native grasses shall be reseeded with native grasses as soon as possible.

Seed Establishment Activities

Mowing: The purpose of mowing is to keep weeds from going to seed and to allow sunlight to penetrate to native grasses seedlings and to limit competition for water by weed species.

During the Year of Planting, seeded areas shall be mowed at a height of 8 to 12 inches when vegetation has reached a height of 18 inches. Depending on the growing conditions, this may require mowing as frequently as every two weeks. In no event will mowing be conducted at a height less than 8 inches.

Herbicide Applications: Herbicide shall be applied to perennial weeds such as Canada thistle or woody plants that invade the areas seeded with prairie seed. The herbicide used shall be the most selective possible given the target species and shall be applied only to the target species to the extent practicable. Herbicide shall not be applied to annual weeds unless they cannot be controlled by mowing and if they have a developed a monoculture that precludes establishment of native grasses.

Site Inspections

The sites will be inspected one month after installation by Carl Korfmacher of Midwest Prairies, LLC to ensure cover crop germination. The site will also be inspected to confirm initial germination of native grasses in mid-September 2018 in order to provide ample time to develop a cover cropping plan for winter, if necessary. After that, the sites will be inspected per the operation and maintenance standards.

Plan Preparation

This Plan was prepared by Carl Korfmacher, Owner, Midwest Prairies, LLC, 11847 Washington Road Edgerton, WI 53534, 800.382.1132, on behalf of The Probst Group and Wisconsin Whey for inclusion in the Water Quality Trading Plan.

ATTACHMENT J
Prairie O&M Plan

Wisconsin Whey Prairie Plantings
Darlington, Wisconsin Site
Operation and Maintenance Plan

The goal of this Operation and Maintenance Plan is to ensure native cover remains consistently and exclusively throughout the site in perpetuity. The primary purpose of the installation and maintenance of conservation cover at the site is to reduce downstream surface water quality degradation by nutrients and sedimentation. This Maintenance Plan was developed to ensure this goal is achieved and is consistent with the requirements and recommendations of NRCS Technical Standard 327.

Prairie plants require regular maintenance and management to remain healthy. The concept of adaptive management is critical. Adaptive management implies that while we can and will prepare for certain activities to occur on site, we also must respond to changing conditions that are not always predictable. As a result, this Plan outlines certain activities to ensure the prairie plants remain healthy, but management practices will remain flexible and consistent with the principles outlined below, in order to adapt to any changing circumstances on-site.

As outlined below, the site will be inspected to ensure that management tools are used appropriately. The inspector will walk the entire site and take photos and notes regarding plant diversity, density, overall ecological health, and any erosion issues. Based on those findings, a more detailed prescription for remedial and maintenance activities will be developed specific to the current conditions on the site to ensure that consistent, perennial native cover remains on the site. The prescriptions for such activities will follow the standards and practices below.

Prairie Cover Standards for Seasons after the First Season

Standards for Second Growing Season:

- Native grasses shall be found consistently throughout the site by mid-July 2019. Areas greater than 25 square yards that exclusively have plants that are not native grasses shall be reseeded with native grasses prior to November 30, 2019.

Standards for Third and Fourth Growing Seasons:

- Native grasses shall be found consistently throughout the site by mid-July 2020 and 2021. Areas greater than 5 square yards that exclusively have plants that are not native grasses shall be reseeded with native grasses prior to the end of November 2020 and 2021. Alternatively, native grasses may be installed with a no-till drill in the spring.

Standards for the Fifth Growing Season and Subsequent Seasons:

- Native grasses shall be found consistently throughout the site as determined during the annual inspection each year. Areas greater than 5 square yards that exclusively have plants that are not native grasses shall be reseeded with native grasses in November of that same year. Alternatively, native grasses may be installed with a no-till drill in the spring.

Reseeding activities shall continue in following seasons as necessary to ensure the standards for the Fifth Growing Season continue to be met in later years.

Early Maintenance Activities for Prairie Through 2022

Herbicide Applications: Herbicide shall be applied to perennial weeds such as Canada thistle or woody plants that invade the areas seeded with prairie seed. The herbicide used shall be the most selective possible given the target species and shall be applied only to the target species to the extent practicable. Herbicide shall not be applied to annual weeds unless they cannot be controlled by mowing or burning and if they have a developed a monoculture that precludes native grasses.

Prescribed Burning: The primary management tool for prairies is prescribed burning. Prescribed burning simulates the effects of wildfires that were part of Wisconsin's pre-settlement environment in which native plant communities, including prairies, thrived. Native prairie grasses, including those species planted at the site, develop deep roots and buds beneath the soil, enabling them to withstand the heat of a fire. The deep roots of native prairie plants also stabilize the site after a fire and enable native prairie plants to quickly regenerate. The Wisconsin Department of Natural Resources has additional information regarding prescribed burning and its benefits to native plant communities, such as prairies, on its website at: http://dnr.wi.gov/topic/wildlifehabitat/burn.html.

Because fire is a critical element in sustaining native prairies, prescribed burning will be used as a management tool at the site. If fuel levels allow, seeded areas may be burned in the spring of 2020 or 2021. Prescribed burning will only occur if fuel levels and weather conditions are appropriate to ensure a prescribed burn can be conducted in a safe and controlled manner and that the site will benefit ecologically from the burn. Because burning will occur at the earliest in the fourth growing season after native vegetation is well-established, nutrient runoff is not expected. However, after a burn is conducted, the site will be monitored for any erosion issues. If erosion issues are identified, they will be addressed pursuant to the below sections titled, "Methods to Address Minor Erosion Control Concerns" and "Methods to Address Effects of Catastrophic and Anomalous Events."

Long-Term Maintenance and Management of Prairie after 2022

Prescribed Burning: As described in the immediately preceding section, the primary management tool for prairies is prescribed burning. Prescribed burning is ecologically beneficial to native prairie plants and will be used as a management tool, as appropriate, to ensure the continued health of the prairie at the site. Generally speaking, after 2022, one third of the site should be burned every year, creating a 3 year rotation. However, certain weeds and woody invasive species may be controlled with more or less frequent fire. In light of that, the determination of which area will be burned and when that area will be burned will be based on the best judgment of the inspector and his/her prescription for maintenance activities.

Prescribed burning will only occur if fuel levels and weather conditions are appropriate to ensure a prescribed burn can be conducted in a safe and controlled manner and that the site will benefit ecologically from the burn. Because burning will occur when the site is well-established, nutrient runoff is not expected. However, after a burn is conducted, the site will be monitored for any erosion issues. If erosion issues are identified, they will be addressed pursuant to the below sections titled, "Methods to Address Minor Erosion Control Concerns" and "Methods to Address Effects of Catastrophic and Anomalous Events."

Herbicide Applications: Management of some invasive species can often only be accomplished through the use of herbicides. Herbicide shall be applied to perennial weeds such as Canada thistle or woody plants that invade the areas seeded with prairie seed. The herbicide used shall be the most selective possible given the target species and shall be applied only to the target species to the extent practicable. Herbicide shall not be applied to annual weeds unless they cannot be controlled by burning and if they have a developed a monoculture that precludes native grasses.

Site Inspections

The site will be inspected one time each during the spring, summer, and fall in the second, third, and fourth growing seasons. Thereafter, the site will be inspected once on an annual basis. This annual inspection will occur between mid-August and mid-September of each year. The site inspections will ensure compliance with seed establishment standards and identify any erosion issues. The site will also be inspected following any major events that could cause erosion as soon as the safety of the inspector can be assured, and if any erosion issues are identified, they will be addressed in accordance with the seed establishment standards above and erosion control sections below. During inspections, the inspector will walk the site and take close-up and distant photos of the site. The inspector will also take notes regarding plant diversity, density, overall ecological health, and any erosion issues. Based on those findings, a more detailed prescription for remedial and maintenance activities will be developed that will ensure that consistent, perennial native cover remains on the site. If the inspection identifies areas at the site that are not meeting the applicable seed establishment standards for the growing season, the

remedial action identified in each standard will be taken. If the inspection identifies erosion issues, they will be addressed pursuant to the sections in this Plan titled “Methods to Address Minor Erosion Control Concerns” and “Methods to Address Effects of Catastrophic and Anomalous Events.”

The inspection reports and associated documentation will be submitted to the Wisconsin Department of Natural Resources with the Wisconsin Whey Annual Report, which is described in the Water Quality Trading Plan.

Methods to Address Minor Erosion Control Concerns

The site will be inspected for any bare spots, gullies, or other erosion control concerns. Erosion concerns will be addressed as follows:

- If bare spots larger than five square yards are identified during the growing season (May 15 through September 30), they will be immediately reseeded with cover crop and covered with a light straw mulch.
- If bare spots larger than five square yards occur outside the growing season, they will be addressed with temporary erosion matting, mulching, or the application of polyacrylamide, as necessary. Erosion events that occur outside of the growing season will be seeded with cover crop once the growing season begins.
- In the event of a major erosion event, such as the formation of a gully greater than one foot wide and one foot deep, the area will be regraded first and then reseeded per above.

All bare spots or gullies described above will also be reseeded with native grasses. Reseeding of native grasses in eroded areas must occur prior to July 15 or after November 1. Any eroded areas that are reseeded will be treated as newly established prairie and must meet the requirements for each growing season per the standards in the Establishment Plan and listed above.

Methods to Address Effects of Catastrophic and Anomalous Events

Certain catastrophic events may require the development of a more intense and urgent plan than the events outlined under the “Methods to Address Minor Erosion Control Concerns” above. These primarily include events that would cause flooding. For instance, in 1996 the Joliet, Illinois, area received over seventeen inches of rain in less than 48 hours. The level of flooding and related erosion was greater than had ever been experienced. Should such an event take place, it would be very difficult if not impossible to address while the event was in progress.

It is impossible to predict all the potential catastrophic or anomalous events that could cause significant damage to prairie plantings. If a catastrophic or anomalous event occurs, a site inspection would be done as soon as the safety of the inspector can be assured and an emergency plan will be developed and

implemented promptly following inspection unless weather or other conditions indicate it should be implemented later. The emergency plan will be consistent with the standards and practices outlined in the Establishment Plan and this Plan to ensure native perennial cover remains consistently throughout the site.

If a catastrophic flood event occurs during the growing season, an erosion plan that includes practices that closely resemble the standards and practices outlined in the Establishment Plan and in this Plan would be developed and implemented. If such an event occurred in mid-September or later, it would be impossible to establish cover prior to winter. Therefore, an erosion plan that includes standard physical erosion control structures would have to be prepared and implemented. This might include placing silt fence, straw wattles or perhaps even the excavation of a settling basin, if so warranted. In addition, a plan would be developed for the next growing season to grade if necessary and reseed in accordance with the standards and practices outlined in the Establishment Plan and this Plan. That plan would be implemented prior to July 1 of that growing season unless weather or other conditions indicate that it should be implemented later.

Other catastrophic events may be wind-based events, such as a tornado or intense straight-line winds, and these may cause trees to fall into the site from the surrounding fence lines. A site inspection would be done as soon as the safety of the inspector can be assured. Any fallen trees will be promptly removed and to the extent the prairie plantings are damaged, erosion issues will be addressed and the area reseeded per the standards and practices above.

Vandalism is another possible hazard. This would most likely involve off road vehicles illegally accessing the property and creating ruts. Ruts would be promptly filled, erosion issues would be addressed, and the area would be reseeded per the standards and practices above.

As previously stated, it is impossible to predict all the possible hazards. However, prairie plantings, in the form of Conservation Reserve Program plantings, private prairies, and remnant prairie plant communities have been shown to be exceptionally resilient in the face of disturbance.

Plan Preparation

This Plan was prepared by Carl Korfmacher, Owner, Midwest Prairies, LLC, 11847 Washington Road Edgerton, WI 53534, 800.382.1132, on behalf of The Probst Group and Wisconsin Whey for inclusion in the Water Quality Trading Plan.

Attachment K
Water Quality Trading Checklist

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

Water Quality Trading Checklist

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

Applicant Information

Permittee Name	Permit Number	Facility Site Number
Wisconsin Whey Protein	WI- 0066371-01-0	

Facility Address	City	State	ZIP Code
160 Christensen Drive	Darlington	WI	53530

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

Project Name
Wisconsin Whey Protein Water Quality Trade

Receiving Water Name	Parameter(s) being traded	HUC 12(s)
WBIC 921500	Phosphorus	070900030305

Credit Generator Information

Credit generator type (select all that apply):

- ☐ Permitted Discharge (non-MS4CAFO)
- ☐ Permitted MS4
- ☐ Permitted CAFO
- ☐ Urban nonpoint source discharge
- ☒ Agricultural nonpoint source discharge
- ☐ Other - Specify: _____

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

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

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

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

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

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

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

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

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

Discharge Type	Practices Used to Generate Credits	Method of Quantification	Trade Agreement Number	Have the practice(s) been formally registered?
◯ Urban NPS ◉ Agricultural NPS ◯ Other	Conversion of cropped ag land to prairie	SnapPlus V2 (16.3.16306.1328)	WQT-20180712	◯ Yes ◯ No ◯ Only in part
◯ Urban NPS ◯ Agricultural NPS ◯ Other				◯ Yes ◯ No ◯ Only in part
◯ Urban NPS ◯ Agricultural NPS ◯ Other				◯ Yes ◯ No ◯ Only in part
◯ Urban NPS ◯ Agricultural NPS ◯ Other				◯ Yes ◯ No ◯ Only in part
◯ Urban NPS ◯ Agricultural NPS ◯ Other				◯ Yes ◯ No ◯ Only in part
◯ Urban NPS ◯ Agricultural NPS ◯ Other				◯ Yes ◯ No ◯ Only in part
◯ Urban NPS ◯ Agricultural NPS ◯ Other				◯ Yes ◯ No ◯ Only in part
◯ Urban NPS ◯ Agricultural NPS ◯ Other				◯ Yes ◯ No ◯ Only in part

Does plan have a narrative that describes:			Plan Section
a. Description of existing land uses	◉ Yes	◯ No	3.1
b. Management practices used to generate credits	◉ Yes	◯ No	2.1
c. Amount of credit being generated	◉ Yes	◯ No	5; Table 5
d. Description of applicable trade ratio per agreement/management practice	◉ Yes	◯ No	4.1 and 4.2
e. Location where credits will be generated	◉ Yes	◯ No	2.4.2
f. Timeline for credits and agreements	◉ Yes	◯ No	7.2
g. Method for quantifying credits	◉ Yes	◯ No	3.3

Does plan have a narrative that describes:			Plan Section
h. Tracking procedures	◉ Yes	○ No	8.2
i. Conditions under which the management practices may be inspected	◉ Yes	○ No	8.6
j. Reporting requirements should the management practice fail	◉ Yes	○ No	8.4
k. Operation and maintenance plan for each management practice	◉ Yes	○ No	Attachment J
l. Location of credit generator in proximity to receiving water and credit user	◉ Yes	○ No	2.4.2
m. Practice registration documents, if available	◉ Yes	○ No	Attachment H
n. History of project site(s)	◉ Yes	○ No	Attachment D
o. Other: _____	○ Yes	○ No	

The preparer certifies all of the following:

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

Signature of Preparer	Date Signed
	7/13/2018

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
	7/13/2018