-WATER QUALITY TRADING PLAN (WQTP)-

for

Village of Weyerhaeuser Wastewater Treatment Facility Weyerhaeuser Wisconsin February, 2019

Prepared by:

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WATER QUALITY TRADING PLAN VILLAGE OF WEYERHAEUSER

SECTION I - INTRODUCTION

A. EXECUTIVE SUMMARY:

The Village of Weyerhaeuser will implement a Water Quality Trading Plan to comply with the phosphorus limit requirements of the WPDES Permit. The Village proposes to trade with an area farmer to reduce phosphorus runoff from his farm. The trade will focus on conversion to permanent perennial vegetation from row crop production. Both the Farm and the Village WWTF ultimately discharge into Soft Maple Creek. The Village of Weyerhaeuser WWTF discharges 200-400 pounds of phosphorus on an annual basis into Soft Maple Creek. Upgrades to the WWTF are anticipated to reduce the phosphorus discharged in the effluent to 110 to 150 pounds per year, which exceeds the final permitted phosphorus discharge limit of 31 lb. per year. Water Quality trading will be used to bridge the gap between the permitted discharge of 31 pounds per year and the anticipated discharge of 110 to 150 pounds per year, that will be discharged to Soft Maple Creek by the Village of Weyerhaeuser WWTF. (110 to 150 pounds of phosphorus discharged in the effluent, minus the 31 pounds permitted by the WPDES permit equals 79 to 119 pounds of phosphorus credit required by WQT)

Assuming a trading ratio of 1.2:1; the phosphorus credits needed will be 1.2 x 119 = 143 pounds of (PTP) required. This is estimated to be the maximum amount of credit needed. The conversion of 49 acres of farm land from row crop production to permanent perennial vegetation will provide a long term PTP of 173 pounds. The Farm will provide a buffer of approximately 30 pounds of excess PTP.

The Water Quality Trading plan is being prepared in conjunction with WWTF upgrades which include a chemical injection system. The chemical injection system will be used to precipitate phosphorus out of the effluent prior to discharge to the Soft Maple Creek watershed. The addition of chemical is anticipated to reduce the phosphorus in the effluent down to 0.6-0.8 mg. / l or 110-150 lb. per year as stated above.

B. BACKGROUND AND NEED (Taken from Facility Plan Amendment):

The Village of Weyerhaeuser submitted a Facility Plan proposing land disposal of the treated effluent. A suitable land disposal site was not found so an amendment to the Facility Plan was submitted to the DNR and approved on September 14, 2017. The DNR approval reads "The Department concurs with the revised recommended alternative calling for capacity expansion of the Village's existing stabilization pond waste water treatment plant and continued seasonal (autumn) fill and draw discharge of the treated wastewater to the adjacent unnamed intermittent drainage ditch tributary to Soft Maple Creek. The revised recommended alternative also calls for the use of phosphorus water quality trading to address compliance with the applicable surface water phosphorus standards along with continued on-going identification and correction of clear water infiltration/inflow sources within the Village's sanitary sewer collection system".

- 1. Capacity Expansion will be completed to the maximum extent possible using the existing stabilization ponds, on Village owned property, immediately adjacent to the existing stabilization ponds. The top of the berms of the two existing cells will be raised to increase capacity and two additional cells will be built.
- 2. Storage Volume will be increased from the existing stabilization pond capacity as follows:

TOTAL	15.1 MGD	249 DAYS DETENTION @ 0.06 MGD
CELL #4	1.3 MGD	22 DAYS DETENTION @ 0.06 MGD
CELL #3	2.1 MGD	35 DAYS DETENTION @ 0.06 MGD
CELL #2	2.7 MGD	45 DAYS DETENTION @ 0.06 MGD
CELL #1	8.8 MGD	147 DAYS DETENTION @ 0.06 MGD

3. Autumn Fill and Draw is not possible with the detention time being less than 365 days. The existing detention time is 150 days at the proposed design flow of 0.06 MGD but will be increased to 249 days with the proposed capacity expansion.

The Proposed Operating Mode is a fill and draw during both the spring and fall discharge periods.

FILL AND DRAW OPERATING MODE @ DAILY DESIGN FLOW OF 0.06 MGD					
MONTH	AVERAGE DAILY DISCHARGE				
MAY	0.146 MGD				
JUNE	0.146 MGD				
SPRING DISCHARGE TOTAL	9 ± MG				
SEPTEMBER	0.146 MGD				
OCTOBER	0.146 MGD				
NOVEMBER	0.146 MGD				
FALL DISCHARGE TOTAL	13.5± MG				
ANNUAL TOTAL DISCHARGE	$22.5 \text{ MG} \approx 0.06 \text{ MGD}$				

4. Phosphorus Standards: The proposed stabilization ponds will be unable to meet the WPDES phosphorus limits. The Village will comply with the WPDES requirements by chemical addition and Water Quality Trading. Chemical will be injected in to the process water pipe prior to entering the final cell. Research has shown that phosphorus from a lagoon can economically be reduced to less than 1 mg/l using alum, ferric chloride of proprietary precipitants. Jar tests performed with effluent from the Weyerhaeuser WWTF, indicated that with propriety chemical added at a rate of 150 mg/l, effluent phosphorus could potentially be reduced to as low as 0.5 mg/l. The final cell will provide about 10 days of settling after chemical addition. The exact amount phosphorus credits needed through WQT will vary from year to year. The following table is a summary of the existing and anticipated phosphorus loadings:

	ANNUAL PHOSP	HORUS LOADIN	IGS
YEAR/ EFFLUENT P. CONC. AS NOTED	POUNDS DISCHARGED IN EFFLEUNT	*STREAM DISCHARGE - POUNDS PERMITTED*	POUNDS OF PTP REQ.D THROUGH WQT @1:1.2 TRADING RATIO
2015 – 1.6 mg/l	283	13	-
2016 – 1.3 mg/l	186	11	-
2017 – 1.5 mg/l	400	19	-
Treatment down to 0.8 mg/l	150	31	143
Treatment down to 0.6 mg/l	110	31	95

^{*}Note: The calculations for pounds of phosphorus permitted, used 0.075 mg/l in spring and 0.23 mg/l in fall for future discharges. Treatment down to 0.6-0.8 mg. /l are based upon the anticipated effectiveness of chemical addition.

5. Effluent Limits: The effluent limits for the proposed WWTF are based upon the existing WPDES Permit and the July 23, 2013 WI DNR Effluent Limits Recommendation Memo. The design values for spring and fall discharge at a design flow of 0.145-0.24 MGD, are 0.075 mg/l spring, 0.23 mg/l fall.

SECTION II - WATER QUALITY TRADING

A. PURPOSE:

This Water Quality Trading Plan for phosphorus will be used by the Village of Weyerhaeuser to comply with future WPDES permit requirements for effluent phosphorus. The Village will continue to discharge to an unnamed tributary to Soft Maple Creek, but will offset the discharge limit exceedances for phosphorus at the outfall by crediting the nonpoint discharge phosphorus runoff reductions from agricultural cropland. The practices on agricultural cropland have been modified to reduce the phosphorus discharge from cropland.

The cropland was modeled with SnapPlus, under the current management system and again with the proposed practices implemented to reduce phosphorus runoff.

Credits generated by the nonpoint source will be traded by the Village to comply with their WPDES Permit.

B. LOCATION OF THE OUTFALL:

1. Location of Outfall: The Village of Weyerhaeuser's WWTF outfall discharge is located at approximately Latitude 45°24'45.0", Longitude 91°24'37.3" to an unnamed intermittent wetland drainage ditch tributary to Soft Maple Creek. The unnamed tributary is classified as a Limited Aquatic Life water (LAL), therefor the point of standards application will be the confluence of said unnamed tributary and Soft Maple Creek, approximate Latitude 45°24'52.0", Longitude 91°23'34.3". The WWTF outfall and point of standards application are both located in HUC 12 number 070500010703. See attachment J for DNR justification of Point of Standards application.

C. TRADING PARTNER:

1. Trading Summary: Bonczyk Soft Maple Valley Dairy Farm Inc. is a former dairy farm which produces grass alfalfa hay on a portion of their tillable acres and rents the remainder to a row crop farmer. This trade will focus on taking 49 acres of rented land out of row crop production and placing it into permanent vegetation that will be harvested for hay. The fields currently in hay production will remain in hay production for the term of the contract with Bonczyk. The remaining fields will continue to be rented for row crop production with conventional tillage.

The conversion of Fields FN-1, FN-2, FN-3, FN-4, FS-1, and FS-2 (refer to Attachment B for field location) to perennial vegetation will on average generate approximately 200 pounds of PTP per year, from 2018-2023. The proposed trade ratio to be applied will have an Uncertainty factor of 1:1, Equivalency Factor N/A, Downstream Trading Factor of 1.1:1 for fields FN-4 and FS-2. The proposed minimum trade ratio is 1.2:1 (PTP of 200±/1.2= 166± lb. of tradeable Phosphorus) see Table 3 for year by year credit generation.

- 2. Location of Agricultural Property: Bonczyk Soft Maple Valley Dairy Farm is located in HUC #070500010703; whose primary discharge point to Soft Maple Creek is upstream of the point of standards application of the WWTF. The majority of the farm runoff discharges into Soft Maple Creek either directly or through an unnamed drainage which enters Soft Maple Creek 1,000' upstream of the point of standard application. Field FN-4 and FS-2 are located upstream of the point of standard application but the drainage way they discharge to enters Soft Maple Creek approximately 4,000' downstream of the point of standard application. See Attachment D for discharge location. Attachment A shows the drainage area HUC 12 map with the Bonczyk Farm highlighted. The fields used for this project are located in the NE-NW and NW-NE of Sec. 29 and the SW-SW, SE-SW, NE-SW, NW-SE, SW-SE of Section 20, all located in T.34N.-R.8W., Town of Stubbs, Rusk County. Refer to Attachment B for field locations.
- 3. Existing Operation: Fields FN-1, FN-2, FN-3, FN-4, FS-1, and FS-2 are part of a former dairy farm; some fields test high in phosphorus from historical overapplication of manure and will be good candidates for this Water Quality Trade. The row crop farmer formerly renting fields in this trade, followed a Corn-Bean rotation: 2015- fields were in corn; 2016 fields were in soybeans; 2017 fields were idle; presumably a prevented planting claim. The above rotation for 2015-2016 was verified with the Cropland Data Layer from National Agriculture Statistics Service (CropScape); the 2017 idle designation was verified by the standing weeds and lack of remaining crop stubble at the time of soil sampling. Fields not included in this trade will remain in their current use for the term of the contract.
- **4. Soil Sampling:** Soil samples for fields FN-1, FN-2, FN-3, FN-4, FS-1, and FS-2, were collected in April of 2018, refer to Attachment B for field map and soil types. Soil samples for fields in this trade were collected in accordance with UWEX Publication A2100. All soil samples are tested by the UW Lab in Marshfield. Sampling procedure: fields are divided into approximately 5-acre sections; one composite sample is made for each section. The sample is comprised of not less than 10 cores taken in the traditional "W" pattern. Fields with multiple composite samples are averaged to create a single recommendation for that field. See Attachment C soil test summary for results.
- **5. Cropland:** There are approximately 173 tillable acres on the farm, 36± acres will remain in row crops, 88± acres will remain in hay production, fields FN-1, FN-2, FN-3, FN-4, FS-1, and FS-2 total approximately 49 acres and will be converted from row crops to permanent hay.

D. SnapPlus -MODELING:

- 1. Previous 3 Years of Cropping History: The SnapPlus file of existing conditions for fields in this trade was generated by observing site conditions at the time of soil sampling and using standard farming practices of the area. Nutrient application is based on removal of nutrients contained in the grain. John Bonczyk did not have crop input information from the renter for the last 3 years, so conservative estimates were made A comparison of the Cropland Data Layer from National Agriculture Statistics Service (CropScape) and the crop residue at the time of soil sampling were used to determine cropping history. Fields FN-1, FN-2, FN-3, FN-4, FS-1, and FS-2 were seeded to corn in 2015, soybeans in 2016 and were not planted in 2017 assumed prevented planting claim.
- **2.** Current Conditions To Be Projected: Nutrient applications, cropping and tillage data from 2015 and 2016 will be projected through 2023. *Leaving fields idle as was the case in 2017, is not part of a standard rotation, therefor it will not be projected.*
- 3. Tillage: The fields within this trade are modeled as chisel plowed and disked to prepare the seedbed for corn and soybeans.
- **4. Rotation:** For the purposes of this WQT plan the rotation of 2015 and 2016 will be projected to 2023, see above reasoning. The rotation will be corn followed by soybeans.
- **5. Credit Generation:** The Phosphorus Credits that we will be claiming will be generated, by perennial vegetative cover with a conservation easement/contract. Perennial vegetation (hay) works to reduce phosphorus runoff by trapping particulate phosphorus, and also by not tilling the field.
- **6. Nutrients:** There will not be any nutrients from manure modeled because there is no record from 2015-2017 of any applications. Commercial fertilizer will be the only nutrient source modeled. The farm fields that were rented for row crop production will have nutrient applications based upon nutrient removal in the grain or standard rates which would be consistent with the practice of short-term cash rentals. Short term cash renters often apply nutrients without the benefit of a soil test, or apply the same fertilizer rate and blend on multiple farms, to simplify the process of ordering and application.: Corn grain removes 0.38 lb. of Phosphorus and 0.29 lb. of potassium per bushel of grain at 15.5% moisture and 10 lb. of sulfur per 150 bu. Soybeans remove 0.80 lb. of Phosphorus, 1.4 lb. of potassium, and 0.18 lb. of sulfur per. bushel of grain at 13% moisture.
 - 1. Soybeans @ yield goal 36-45 bu. per ac.
 - (40 bu.x0.80=32 lb.). phosphorus applied as 70 lb. of 18-46-0 (DAP))
 - (40 bu.x1.4=56 lb.). potassium applied as 100 lb. of 0-0-60 (Potash)
 - (40 bu.x0.18 lb.=7 lb.) sulfur applied as 30 lb. of 21-0-0-24s Ammonium sulfate (AMS)
 - Corn @ 131-150 bu. per ac. standard dry fertilizer corn starter 9-20-30 @ 225 lb. per acre, which would supply: (9% x 225 lb.=20 lb. Nitrogen), (20% x 225 lb.=45 lb. Phosphorus), (30% x 225 lb.=68 lb. Potassium)
 - (140 bu. x 0.38=53 lb.). phosphorus required, applied 45 lb.
 - (140bu. x 0.29=41 lb.). potassium required, applied 68 lb.
 - 50 lb. of ammonium sulfate (AMS) @ 21-0-0-24s=12 lb. sulfur applied and 11 lb. Nitrogen
 - 130 lb. nitrogen recommendation: (20 lb. in starter fertilizer + 11 lb. applied in AMS + (220 lb. urea x 46% nitrogen=101 lb.) =132 lb. applied.

E. EXISTING CROP PRODUCTION:

- 1. Corn Production: Yield goal of 131-150 bu. per acre. Nutrient applications are based on the middle of the range, 140 bu. per. acre. The seedbed for plating corn was prepared by spring chisel plowing and disking. The following nutrient application data is standard for corn. See Attachment C for specific field application data.
 - Commercial starter fertilizer 225 lb. per acre of 9-20-30
 - Side dress application 50 lb. of ammonium sulfate and 220 lb. urea
 - Total application to the crop 132-45-68, not including N credit from soybeans
- **2. Soybean Production** with a yield goal of 36-45 bu. per acre. Nutrient application was based on the middle of the range at 40 bu. per acre. The seedbed for plating soybeans was prepared by spring chisel plowing and disking. John Bonczyk could not remember if the renter drilled the soybeans, but said the rows were narrower than 30", they were modeled in 15"-20" rows. The following nutrient application data is standard for soybean production in this plan. See Attachment C for specific field application data.
 - 70 lb. DAP 18-46-0 = 13-32-0 pounds per acre
 - 30 lb. AMS 21-0-0-24s=6-0-0-7s pounds per acre
 - 100 lb. Potash 0-0-60 = 0-0-60 pounds per acre
 - Theoretical total application to the crop 19-32-60 pounds per acre

F. POTENTIAL TRADEABLE PHOSPHORUS UNDER CURRENT MANAGEMENT:

- 1. **SnapPlus Modeling** was used to quantify Potentially Tradeable Phosphorus. A model was prepared for fields under projected current management practices. The current management, crops and nutrient applications will be modeled out though 2023 to create a baseline to measure the effectiveness of conservation practices implemented to reduce phosphorus leaving the farm. The following reports were generated through the modeling process. Attachment C includes the following SnapPlus reports:
 - Soil Test Summary
 - Fields Data and 590 Assessment Plan
 - Producers Plan Report
 - Phosphorus Trade Report

TABLE 1 - Existing Conditions PTP

Farm	Field	Soil Series	Soil Symbol	Acres	PTP 2018	PTP 2019	PTP 2020	PTP 2021	PTP 2022	PTP 2023
BONCZYK 1	FN-1	SCONSIN	648B	6.1	34	34	17	29	17	29
BONCZYK 1	FN-2	ROSHOLT	38C	11.1	79	80	38	70	37	70
BONCZYK 1	FN-3	ROSHOLT	38B	2.8	10	10	5	9	5	9
BONCZYK 1	FN-4	FREEON	757B	5.1	41	41	19	35	19	35
BONCZYK 1	FS-1	FREEON	757B	19.5	114	57	109	58	109	57
BONCZYK 1	FS-2	FREEON	757B	3.9	25	12	24	12	24	12
Total				48.5	303	235	212	214	211	213

G. PROPOSED OPERATING CONDITIONS, REDUCING PHOSPHORUS RUNOFF:

- 1. Implementation: After the Water Quality Trading Plan has been approved by the DNR and accepted by the Village of Weyerhaeuser, the farm will continue to implement the conservation practices listed below. The Village and Bonczyk Soft Maple Valley Dairy Farm Inc. will enter into an agreement to maintain the conservation practices. The agricultural land will be used to generate Phosphorus Credits through reduction of tillage and installing perennial vegetation (hay).
- **A. Nutrient Management:** Field FN-1, FN-2, FN-3, and FN-4 test high in Phosphorus and will be operated to draw down the Phosphorus level. This will be done by withholding nutrient applications and removing crops without replacing the phosphorus. Phosphorus will be drawn down to the optimum level on the soil test, before phosphorus containing fertilizers will be applied.
- **B. Soil Sampling:** Soil sampling will be conducted on a 4-year schedule to monitor nutrients. The soil tests will be used to prescribe the proper fertilizer rate and composition. Fields will be divided into approximately 5-acre sections. One composite sample will be taken from each section and the sample will be comprised of not less than 10 cores taken in the traditional "W" pattern. Composite samples will be sent to the UW lab in Marshfield. Fields with multiple composite samples will be averaged to make the recommendations. For a detailed description of the sampling procedure refer to UW Extension A2809.
- **C. Cropping:** The fields were seeded to alfalfa/grass with a barley nurse crop in 2018; 2019 to the termination of the contract the fields will remain in grass hay.
- **D. Tillage:** The fields will be prepared for planting by, primary tillage with a chisel plow and secondary tillage with a tandem disk. The fields will not be tilled again for the term of the contract unless, to repair a greater erosion risk.

E. Seeding 2018:

• Sample Seed Mix. Mix and Rate, 18 lb. per acre:

20%	Alfalfa
30%	Fescue
20%	Timothy
30%	Orchard Grass

- Nurse Crop. 2 bushel per acre of barley seeded with the grass mix as a
 conservation practice to reduce sediments leaving the field during establishment.
 Barley is a cool season annual grass that will provide ground cover. The nurse crop
 was harvested as hay in the boot stage.
- Seed Placement. Seed was sown using either a grain drill or a Brillion type seeder.
- Harvest/ Clipping weeds See Attachment H.
- Seeding Failures and Erosion Control see Attachment H.
- **F. Harvest and Management 2019-and beyond:** The permanent grass cover will be managed to produce quality forage and reduce phosphorus leaving the farm, the procedure to achieve this is laid out in detail in The Operation and Maintenance Manual (Attachment H).

H. POTENTIALLY TRADEABLE PHOSPHORUS: Will be generated through a Conservation Easement (contract) which generates credit though a reduction of tillage and perennial vegetation (hay), which provides year-round ground cover and phosphorus trapping abilities. The following SnapPlus reports are included in Attachment E to document the proposed operating conditions of the fields.

- Fields Data and 590 Assessment Plan
- Producers Plan Report
- Phosphorus Trade Report

TABLE 2 – PTP Perennial Vegetation

Farm	Field	Soil Series	Soil Symbol	Acres	PTP 2018	PTP 2019	PTP 2020	PTP 2021	PTP 2022	PTP 2023
BONCZYK 1	FN-1	SCONSIN	648B	6.1	13	3	2	2	1	1
BONCZYK 1	FN-2	ROSHOLT	38C	11.1	30	5	3	2	2	1
BONCZYK 1	FN-3	ROSHOLT	38B	2.8	4	1	1	1	1	1
BONCZYK 1	FN-4	FREEON	757B	5.1	15	3	3	2	1	1
BONCZYK 1	FS-1	FREEON	757B	19.5	44	7	5	3	2	1
BONCZYK 1	FS-2	FREEON	757B	3.9	10	2	1	1	0	0
Total				48.5	115	20	15	10	7	5

I. PHOSPHORUS TRADE RATIOS: Potentially Tradeable Phosphorus values generated through SnapPlus modeling do not reflect the actual trade ratios. The trade ratio is applied to determine the Phosphorus Credits available resulting from changes in management practices. Following are the trade ratio factors:

- Delivery N/A Credit generator and user within same HUC 12
- Downstream 1:1 for Fields FN-1, FN-2, FN-3, and FS-1 discharge to Soft Maple Creek upstream of the point of standards application, 1.1:1 for Fields FN-4 and FS-2 which discharge to the Soft Maple Creek, via an unnamed drainage approximately 4,000' downstream. See Attachment D
- Equivalency N/A for Phosphorus
- **Uncertainty** Conservation Easement, perennial vegetation for the term of the contract. 1:1 per Table 16, Pg. 57 of A WQT How-To Manual WI DNR,
- Habitat Adjustment N/A no habitat work

The sum of the Trade ratio factors yields less than a 1.1:1 ratio, however the minimum allowed trade ratio from a nonpoint source to a point source is 1.2:1. Therefore, a 1.2:1 trade ratio will be applied between Bonczyk Soft Maple Dairy Farm Inc. and the Village of Weyerhaeuser WWTF.

J. REPORTING:

(REFER TO ATTACHMENT H – OPERATION AND MAINTENANCE PLAN)

K. PHOSPHORUS CREDIT GENERATION: Credits are calculated as the difference between phosphorus lost under current baseline practices and phosphorus lost under proposed practices. Credits are calculated on an annual basis. The table below shows the trade rates per year beginning in 2018 and extending through 2023. Credits are available in 2018 from the successful establishment of perennial vegetation (hay).

TABLE 3: TRADEABLE PHOSPHORUS

	PTP	PTP	PTP	PTP	PTP	PTP
	2018	2019	2020	2021	2022	2023
Past Practices	303	235	212	214	211	213
Perennial Vegetation	115	20	15	10	7	5
Total PTP	188	215	197	204	204	208
Total Credits w/1.2:1 trade ratio	157	179	164	170	170	173

Tradeable phosphorus in years 2024 and beyond will be based upon the 2023 Total Tradeable Phosphorus of 173 pounds per year.

L. MANAGEMENT PRACTICE REGISTRATION: Submit the following to the DNR to register that the management practices have been installed (2018):

- Date of contract
- Management Practice Registration Form Attachment F
- Date corrective measures have been completed
- Date of 90% ground cover and photo verification
- Report any deviation of the applied practices as outlined in the WQT plan, and any seeding failures that will need to be reseeded prior to the close of the first growing season
- Monthly Reporting: Each month the Village shall report that the management practices
 installed are being maintained in a manner consistent with the WQT plan. This will be
 done by making a statement, as a comment on the monthly discharge report, certifying
 that management practices established are in good condition and properly
 maintained.
- 2. Annual Reporting: The Village will file an annual report to the DNR of the status of management practices and provide an update of the overall trading project. The content of the annual report will include:
 - Verification that site inspection has occurred
 - · Brief summary of site inspection findings
 - Identification of noncompliance or failure to follow any of the terms or conditions of the trading plan that have not been previously reported
 - At least 1 photo of the perennial vegetation, indicating condition
 - A summary of credits used each month over the calendar year
- 3. Notification of Problems That Affect Credit Generation: The Village shall notify the DNR within 7 days of becoming aware that the phosphorus reduction credits used by the Village are not being generated as approved in the WQT plan. The Village will work with the farmer to restore or correct the deficiency, and update the DNR on the progress.

M. DNR RIGHT OF ENTRY: Bonczyk Soft Maple Valley Dairy Farm Inc. grants to the DNR the right to inspect the management practices throughout the term of the WQT plan for the purpose of verifying that the WQT plan is being implemented, with prior notification.

N. COMPLIANCE WITH THE WATER OUALITY TRADING CHECKLIST

This WQT Plan complies with the required content of a WQT Plan as outlined in the checklist located on Table 8, page 37 of Guidance for Implementing Water Quality Trading Plans, Guidance No:3800-2013-04; Form 3400-208 is included as Attachment G. This WQT Plan falls under Credit Source Column (e) "credits obtained from a constructed project or implementation of a plan undertaken by the credit user for sources other than that covered by the credit users WPDES permit". Below are listed the checklist questions, **bold and underlined**, with the answers following.

Permittee's/credit user's WPDES permit number:

Permittee's/credit users contact information:

No. WI 0020761-08-0 Kris Snyder, Clerk

PO BOX 168

Weyerhaeuser WI 54895 Phone 715-353-2571

Pollutant for which credit will be generated: Phosphorus

Amount of Credits available from each location, management practice, local government unit when acting as broker:

See Table 3, page 9

 Certification that the content of the trading application is accurate and correct.

Signature and date of signature of permittee's/ credit

users authorized representative:

Location where credits will be generated:

Identification of methods including management practices that will be used to generate credits:

Duration of agreement with each credit generator:

See Section O, page 11

See Section O, page 11 See Attachment A and B

See Section G, page 7

5 years with the provision of extension, unless WPDES removes the phosphorus

requirement

 Schedule for installation/construction of each management practice:

 Operation and Maintenance plan for each management practice,

Date when credits become available for each management practice:

Models used to derive the amount of credits:

The applicable trade ratio for each management practice including supporting technical basis:

See Section G, page 7

See Attachment H

Section K & Table 3, page 9

SnapPlus, see Attachment C & E

See section I, page 8

O. CERTIFICATION OF THE WATER QUALITY TRADING PLAN

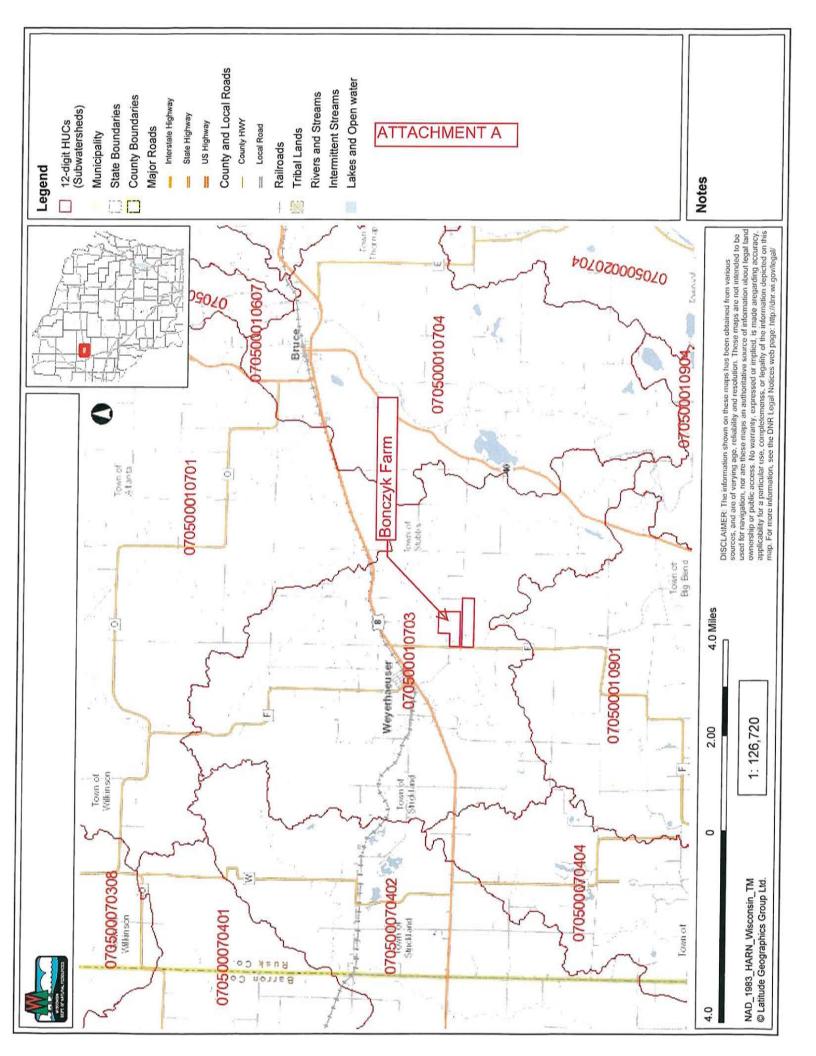
The undersigned hereby certifies that this water Quality Trading Plan is accurate and correct to the best of my knowledge and belief.

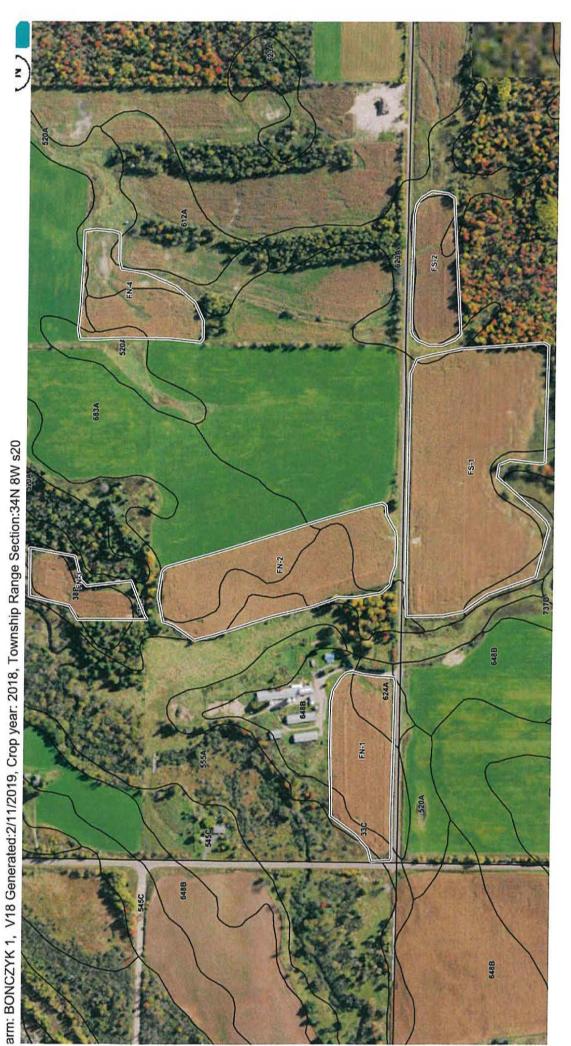
Village of Weyerhaeuser:

Kris Snyder, Village Clerk

Project Engineer:

arry Gotham P.E., Morgan & Parmley Ltd.





▶ Drinking Well
 ⇒ Public well
 ♦ Irrigation well
 ♠ Sinkhole
 ⇒ Non-metallic mine
 ♦ Fractured bedrock at surface

■ Not farmed
■ Grass filter area

r ■ Vegetated buffer
■ Non-metallic mine

Areas contributing runoff to direct conduits to groundwater Nutrient prohibited areas (buffers vary by feature)

Nutrient prohibited areas (drawn manure prohibited areas)

Counties
Township/Range

G Headland stacks

Other direct conduit Tile outlet

Water

Sinkhole/other karst feature

Other

Municipal wells

Ephemeral erosion channel Ditch Non-eroding channel Grassed waterway

▲ County Defined Karst Features

NM3: Field Data and 590 Assessment Plan

Reported For	BONCZYK 1	Prepared for:
Printed	2019-02-11	BONCZYK 1
Plan Completion/Update Date	2018-05-03	adi.bonoc.in
SnapPlus Version 18.1 built on 2019-01-15	2019-01-15	
M:\M Drive\2015\2015-167 Weyel BONCZYK\SNAPPLUS RUNS NE ROW CROPS .snabDb	M:\M Drive\2015\2015\2015-167 Weyerhaeuser \text{WWTF\WQT\SNAP PLUS} BONCZYK\SNAPPLUS RUNS \text{NEW SOIL TESTS\BONCZYK FINAL WITH ROW CROPS.snapDb}	

Field Data: 49 Total Acres Reported.

	P205 Bal Target			0			
	Rot P205 Bal	-24	-24	-24	-24	-24	-24
	Soil Test P	78	59	9	42	5	9
	Rot Avg	4	ro.	g	5	4	LO.
	SC	-0.2	-0.3	-0.3	-0.2	-0.2	-0.2
	Rot Avg Soil Loss tlac	6.2	17.1	77	5.8	5.8	5.8
	Field "T"	ro	e	က	4	4	4
	Report Period	2018-	2018-	2018-	2018- 2023	2018- 2023	2018- 2023
	Tillage	SCD-SCD- SCD-SCD- SCD-SCD	SCD-SCD-SCD-SCD-SCD-SCD-SCD-SCD-SCD-SCD-	SCD-SCD-SCD-SCD-SCD-SCD-SCD-SCD-SCD-SCD-	SCD-SCD- SCD-SCD- SCD-SCD-		
	Rotation	Sg15-Cg- Sg15-Cg- Sg15-Cg	Sg15-Cg- Sg15-Cg- Sg15-Cg	Sg15-Cg- Sg15-Cg- Sg15-Cg	Sg15-Cg- Sg15-Cg- Sg15-Cg	Cg-Sg15- Cg-Sg15- Cg-Sg15	Cg-Sg15- Cg-Sg15- Cg-Sg15
	Tiled	Š	2	8 S	S	S.	2
	Irrig	Š	8	⁸	2	2	2
	Contour/ Filters	No/No	No / No	No / No	No / No	No/No	No/No
	Dist.To Water ft	2.1-6 0-300	301 -	0 - 300	2.1-6 1001-5000	1001 -	1001 -
	Below Field Slope To Water %	2.1-6	0-2	6.1 -	2.1-6	0-2	0-2
	F.Slp Len ft	150	150	150	250	250	250
	F. Sip %	6	£	£	4	4	4
	Critical Soil Series & Symbol	CHETEK 33C	ROSHOL T 38C	ROSHOL T 38C	FREEON 757B	FREEON 757B	FREEON 757B
rted.	County	Rusk	Rusk	Rusk	Rusk	Rusk	Rusk
Repo	Acres	6.1	ξ.	2.8	5.1	19.5	3.9
Acres	FSA Fld						
otal /	FSA						
: 49	Sub Farm						-
Field Data: 49 Total Acres Reported.	ile ile	F-R-1	FN-2	FN-3	FN-4	FS-	FS-2

ATTACHMENT C

Crop Abbreviations

Abbreviation	Crop	
ő	Com grain	

Tillage Abbreviations

Soybeans 15-20 inch row

Sg15

	ř.,
Tillage	Spring Chisel, disked
Abbreviation	SCD

WQ1: P Trade Report

Reported For BONCZYK 1

Printed 2019-02-11
Plan Completion/Update Date 2018-05-03

attn:BONCZYK 1

Prepared for: BONCZYK 1

> Plan Completion/Update Date 2018-05-03 SnapPlus Version 18.1 built on 2019-01-15

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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 predominant soil type. Losses from concentrated flow channel or gully erosion with a field are not included of a Water Quality Trade activity, phosphorus losses (PTP) must be converted into 'P credits' according to tillage, nutrient management practices and estimates of average runoff and sheet and rill erosion for the entering surface waters. These P loss calculations are based on a field's soil test P concentration, crops, The P Trade Report estimates the annual pounds of phosphorus (P) in surface runoff from cropland DNR guidance.

Questions? Please contact DNRphosphorus@wisconsin.gov

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

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

P Trade Report						Ь	PTP		
Field Name	Soil Series	Soil Symbol	Acres	2018	2019	2020	2024	2002	2006
FN-1	SCONSIN	648B	9	34	34	17	59	17	29
FN-2	ROSHOLT	380	7	79	8	38	70	37	2 02
FN-3	ROSHOLT	38B	က	10	10	2	0	2	6
FN-4	FREEON	757B	2	4	4	19	35	19	35
FS-1	FREEON	757B	20	114	27	109	28	109	25
FS-2	FREEON	757B	4	25	12	24	12	24	12
Total			67	303	235	213	24.4	244	24.0

FM6: Soil Test Report

Prepared for:	BONCZYK 1	auth DONOZIN I
BONCZYK 1	2019-02-11	2018-05-03
Reported For	Printed	Plan Completion/Update Date

M:IM Drive\2015\2015\167 Weyerhaeuser WWTF\WQT\SNAP PLUS BONCZYK\SNAPPLUS RUNS NEW SOIL TESTS\BONCZYK FINAL WITH ROW CROPS .snapDb

SnapPlus Version 18.1 built on 2019-01-15

			Predo	Predominant				Sam	Samples				in nam		
Field Name	Subfarm Acres	Acres	Soil Map Symbol	Soil Name	Soil Test Date	Soil Test Lab	Lab	Rec	Actual #	글	/0 M 0/	0	S .	(1
FN-1		6.1	648B	SCONSIN	2018-05-07	Anal			2		2.2	28	209	0	0
FN-2		11.1	380	ROSHOLT	2018-05-07	Soil & Forage Analysis Lab	2342	7	m	7.5	2.2	59	83	0	0
FN-3		2.8	38B	ROSHOLT	2018-05-07	Soil & Forage Analysis Lab	2342	+	-	9.9	2.5	61	137	0	0
FN4		2.1	757B	FREEON	2018-05-07	Soil & Forage Analysis Lab	2342	-	_	6.1	2.6	42	69	0	0
FS-1		19.5	7578	FREEON	2018-05-07	Soil & Forage Analysis Lab	2342	4	4	7.7	2.5	5	49	0	0
FS-2		3.9	7578	FREEON	2018-05-07	Soil & Forage Analysis Lab	2342	٣	-	6.9	2.8	19	74	0	0

Crop Year Soil Test Needed

Field Name	Soil Test Date	2018	2019	2020	2021	2022	2003
FN-1	2018-05-07					×	
FN-2	2018-05-07					×	
FN-3	2018-05-07					×	
FN-4	2018-05-07					×	

Field Name	Soil Test Date	2018	2019	nene	9004	9000	900
Fe 4	2040 05 07				1 1 1 1	Tour Contract of the Contract	ZVZ
-5-						×	
FS-2	2018-05-07					×	

FM3: Producer's Plan Report

Crop Year	2018	Prepared for:
Reported For	BONCZYK 1	BONCZYK 1 attn:BONCZYK 1
Printed	2019-02-11	
Plan Completion/Update Date	2018-05-03	
SnapPlus Version 18.1 built on 2019-01-15	2019-01-15	

M:IM Drive\2015\2015\167 Weyerhaeuser WWTFIWQT\SNAP PLUS BONCZYKISNAPPLUS RUNS NEW SOIL TESTS\BONCZYK FINAL WITH ROW CROPS .snapDb Field Data: 48.5 Total Acres Reported.

Field	183 lb	427 lb	610 lb	333 lb	dl 777	1,110 lb	84 lb	196 lb	280 lb
Season and Method	Spring	Spring Incorp	Spring	Spring	Spring	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp
Rate per Acre	30 lb	70 lb	100 lb	30 lb	70 lb	100 lb	30 lb	70 lb	100 lb
Under- Application based on UW Product Name and Recs Analysis	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61
	0-0-39			0-0-39			0-0-0		
Over- Application based on UW Recs	19-32-0			19-32-61 19-32-61 19-32-0			19-32-61 19-32-61 19-32-61		
Total Credits and Apps	19-32-61 19-32-61			19-32-61			19-32-61		
Manure Fert Apps Ib/ac	19-32-61			19-32-61			19-32-61		
2nd Year N Manure Credit Ib/ac	0			0			0		
2018 Legume Credit N Ibiac	0			0			0		
2018 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	0-0-100			0-0-100			0-0-0		
2018 Crop and Tillage	Soybeans 15-20 inch row Spring Chisel,			Soybeans 15-20 inch row Spring Chisel, disked			Soybeans 15-20 inch row Spring Chisel, disked		
2017 Grop and Tillage	Idle Land None			Idle Land None		1 1 1 1	None		
Ac.	1.9	e in the same		Ē.		0	0.7		619
Field Name	FN-1		Š	7-N-7		c Z	?		

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201	2017 Crop and Tillage	2018 Crop and Tillage	2018 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	2018 Legume Credit N Ib/ac	2nd Year N Manure Credit Ib/ac	Manure Fert Apps Ib/ac	Total Credits and Apps	Over- Application based on UW Recs	Under- Application based on UW Recs	Under- Application based on UW Product Name and Recs Analysis	Rate per Acre	Season and Method	Field
	Idle Land None	Soybeans 15-20 inch row Spring Chisel, disked	0-0-100	0	0	19-32-61	19-32-61 19-32-61	19-32-0	0-0-39	Ammonium sulfate (AMS) 21-0-0		Spring Incorp	153 lb
										Diammonium phosphate (DAP) 18-46-0	70 lb	Spring Incorp	357 lb
	0.00	·								Potassium chloride 100 lb 0-0-61	100 lb	Spring Incorp	510 lb
	None None	Com grain Spring Chisel, disked	145-85-85	0	0	132-45-	132.45- 68	0-0-0	13-40-17	9-20-30 9-20-30	225 lb	Spring Subsurfac e	4,388 lb
										Ammonium sulfate (AMS) 21-0-0	50 lb	Summer Unincorp	975 lb
	1			1						Urea 46-0-0	220 lb	Summer	4,290 lb
	None	Com grain Spring Chisel, disked	145-53-70	0	0	132-45-	132-45- 68	0-0-0	13-8-2	9-20-30 9-20-30	225 lb		878 lb
										Ammonium sulfate 50 lb (AMS) 21-0-0	20 lb	Summer Unincorp	195 lb
										Urea 46-0-0	220 lb	220 lb Summer Unincorp	858 lb

FM3: Producer's Plan Report

Prepared for:	BONCZYK 1 attn:BONCZYK		
2019	BONCZYK 1	2019-02-11	2018-05-03
Crop Year	Reported For	Printed	Plan Completion/Update Date

SnapPlus Version 18.1 built on 2019-01-15

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Field Data: 48.5 Total Acres Reported.

Field Amount	1,372 lb	305 lb	1,342 lb	2,498 lb	922 lp	2,442 lb	e30 lb	140 lb	616 lb
Season and Method	Spring Subsurfac e	Summer Unincorp	Summer	Spring Subsurfac e	Summer Unincorp	220 lb Summer Unincorp	Spring Subsurfac e	Summer Unincorp	220 lb Summer Unincorp
Rate per Acre		50 lb	220 lb	225 lb	50 lb	220 lb	225 lb	50 lb	220 lb
Under- Application based on UW Product Name and Recs Analysis	9-20-30 9-20-30	Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0	9-20-30 9-20-30	Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0	9-20-30 9-20-30	Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0
Name and Address of the Owner, where the Owner, which the	0-0-17			0-0-17			0-0-0		
Over- Application based on UW Recs	2-45-0			2-45-0			2-45-68		
Total Credits and Apps	132-45- 68			132-45- 68			132-45- 68		
Manure Fert Apps Ib/ac	132-45- 68			132-45- 68			132-45- 68		
2nd Year N Manure Credit Ib/ac	0			0			0		
2019 Legume Credit N Ib/ac	0			0			0		
2019 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	130-0-85			130-0-85			130-0-0		
2019 Crop and Tillage	Corn grain Spring Chisel, disked			Com grain Spring Chisel, disked			Com grain Spring Chisel, disked		
2018 Crop and Tillage	Soybeans 15-20 inch row Spring Chisel, disked			11.1 Soybeans 15-20 inch row Spring Chisel, disked		To the second of	2.0 Soybeans 15-20 Inch row Spring Chisel, disked		
Ac.	6.1			Ē		0	07		
Field Name	FN-1		č	7-N-7		N	2		

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Field Name	Ac.	2018 Crop and Tillage	2019 Crop and Tillage	2019 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	2019 Legume Credit N Ib/ac	2nd Year N Manure Credit Ib/ac	Manure Fert Apps Ib/ac	Total Credits and Apps	Over- Application based on UW Recs	Under- Application based on UW Recs	Under- Application based on UW Product Name and Recs Analysis	Rate per Arre	Season and Method	Field
4 N 4	2.1	Soybeans 15-20 inch row Spring Chisel, disked	Corn grain Spring Chisel, disked	130-0-85	0	0	132-45- 68	132-45- 68	2-45-0	0-0-17	9-20-30 9-20-30	21,290	Spring Subsurfac e	1,148 lb
											Ammonium sulfate 50 lb (AMS) 21-0-0	50 lb	Summer Unincorp	255 lb
	5		7.3								Urea 46-0-0	220 lb	Summer	1,122 lb
Ż	C C	Corn grain Spring Chisel, disked	Soybeans 15-20 inch row Spring Chisel,	0-60-100	0	0	19-32-61	19-32-61 19-32-61	19-0-0	0-28-39	Ammonium sulfate (AMS) 21-0-0	30 lb	Spring Incorp	585 lb
											Diammonium phosphate (DAP) 18-46-0	70 lb	Spring Incorp	1,365 lb
6 01	c	į									Potassium chloride 100 lb 0-0-61	100 lb	Spring Incorp	1,950 lb
7-61	n o	Com grain Spring Chisel, disked	Soybeans 15-20 inch row Spring Chisel,	0-30-85	0	0	19-32-61	19-32-61 19-32-61	19-2-0	0-0-24	Ammonium sulfate (AMS) 21-0-0	30 lb	Spring Incorp	117 lb
	-										Diammonium phosphate (DAP) 18-46-0	70 lb	Spring Incorp	273 lb
											Potassium chloride 100 lb 0-0-61	100 lb	Spring	390 lb

FM3: Producer's Plan Report

Prepared for	BONCZYK 1 attn:BONCZYK		
2020	BONCZYK 1	2019-02-11	2018-05-03
Crop Year	Reported For	Printed	Plan Completion/Update Date

SnapPlus Version 18.1 built on 2019-01-15

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Field Data: 48.5 Total Acres Reported.

Field	183 lb	427 lb	610 lb	333 lb	dl 777	1,110 lb	84 lb	196 lb	280 lb
Season and Method	Spring	Spring Incorp	Spring	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp
Rate per Acre	30 lb	70 lb	100 lb	30 lb	70 lb	100 lb	30 lb	70 lb	100 lb
Under- Application based on UW Product Name and Recs Analysis	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61
Under- Application based on UW Recs	0-0-39			0-0-39			0-0-0		
Over- Application based on UW Recs	19-32-0			19-32-0			19-32-61		
Total Credits and Apps	19-32-61			19-32-61			19-32-61		
Manure Fert Apps Ib/ac	19-32-61 19-32-61			19-32-61 19-32-61			19-32-61 19-32-61		
2nd Year N Manure Credit Ib/ac	0			0			0		
	0			0			0		
2020 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	0-0-100			0-0-100			0-0-0		
2020 Crop and Tillage	Soybeans 15-20 inch row Spring Chisel, disked			Soybeans 15-20 inch row Spring Chisel, disked			Soybeans 15-20 inch row Spring Chisel, disked		
2019 Crop and Tillage	Com grain Spring Chisel, disked			Spring Chisel, disked		diene en C	Spring Chisel, disked		
Ac.	1.9		÷	=		80	3		
Field Name	7- 1-		EN 2	74		FN.3	?		

BONCZYK1

Field	153 lb	357 lb	510 lb	4,388 lb	975 lb	4,290 lb	878 lb	195 lb	858 lb
Season and Method	Spring Incorp	Spring Incorp	Spring	Spring Subsurfac e	Summer Unincorp	Summer Unincorp	Spring Subsurfac e	Summer Unincorp	Summer
Rate per Acre	30 lb	70 lb	100 lb	225 lb	50 lb	220 lb	225 lb	90 lb	220 lb
Under- Application based on UW Product Name and Recs Analysis	Ammonium sulfate 30 lb (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61	9-20-30 9-20-30	Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0	9-20-30 9-20-30	Ammonium sulfate 50 lb (AMS) 21-0-0	Urea 46-0-0
Under- Application based on UW Recs	0-0-39			0-40-17			0-8-2		
Over- Application based on UW Recs	19-32-0			2-0-0			2-0-0		
Total Credits and Apps	19-32-61			132-45- 68			132-45- 68		
Manure Fert Apps Ib/ac	19-32-61 19-32-61			132-45- 68			132-45- 68		
2nd Year N Manure Credit Ib/ac	0			0			0		
	0			0		-	0		
Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	0-0-100			130-85-85			130-53-70		
2020 Crop and Tillage	Soybeans 15-20 inch row Spring Chisel, diskod			Corn grain Spring Chisel, disked			Corn grain Spring Chisel, disked		
2019 Crop and Tillage	Corn grain Spring Chisel, disked			19.5 Soybeans 15-20 inch row Spring Chisel, disked			Spring Chisel, disked		
Ac.	5.1			19.5		ć	F.		
Field Name	FN 4			- 5		c c	7-0-1		

FM3: Producer's Plan Report

Prepared f	BONCZYK 1 attn:BONCZYK		
2021	BONCZYK 1	2019-02-11	2018-05-03
Crop Year	Reported For	Printed	Plan Completion/Update Date

SnapPlus Version 18.1 built on 2019-01-15

M:IM Drive\2015\2015-167 Weyerhaeuser WWTF\WQT\SNAP PLUS BONCZYK\SNAPPLUS RUNS NEW SOIL TESTS\BONCZYK FINAL WITH ROW CROPS .snapDb

Field Data: 48.5 Total Acres Reported.

Field	1,372 lb	305 lb	1,342 lb	2,498 lb	555 lb	2,442 lb	630 lb	140 lb	616 lb
Season and Method	Spring Subsurfac e	Summer Unincorp	Summer	Spring Subsurfac e	Summer Unincorp	220 lb Summer Unincorp	Spring Subsurfac e	Summer Unincorp	220 lb Summer Unincorp
Rate per Arre		50 lb	220 lb	225 lb	90 lb	220 lb	225 lb	90 lb	220 lb
Under- Application based on UW Product Name and Recs Analysis		Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0	9-20-30 9-20-30	Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0	9-20-30 9-20-30	Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0
	0-0-17			0-0-17			0-0-0		
Over- Application based on UW Recs	2-45-0			2-45-0			2-45-68		
Total Credits and Apps	132-45- 68			132-45- 68			132-45- 68		
Manure Fert Apps Ib/ac	132-45- 68			132-45- 68			132-45- 68		
2nd Year N Manure Credit R Ib/ac	0			0			0		
	0			0			0		
2021 Adjusted Legume Grop Need Credit N Ibfac Ibfac	130-0-85			130-0-85			130-0-0		
2021 Crop and Tillage	Corn grain Spring Chisel, disked			Corn grain Spring Chisel, disked			Com grain Spring Chisel, disked		
2020 Crop and Tillage	Soybeans 15-20 inch row Spring Chisel, disked			11.1 Soybeans 15-20 inch row Spring Chisel, disked			Spring Chisel, disked		
Ac.	6.1			3			9		
Field Name	FN-1		Š	7-N-2		Š	?		

BONCZYK1

FM3: Producer's Plan Report

Crop Year	2022 P	Prepared for:
Reported For	BONCZYK 1	3ONCZYK 1
Printed	2019-02-11	
Plan Completion/Update Date 2018-05-03	2018-05-03	
SnapPlus Version 18.1 built on 2019-01-15	2019-01-15	

M:IM Drive\2015\2015\167 Weyerhaeuser WWTF\WQT\SNAP PLUS BONCZYK\SNAPPLUS RUNS NEW SOIL TESTS\BONCZYK FINAL WITH ROW CROPS .snapDb

Field Data: 48.5 Total Acres Reported.

Field	183 lb	427 lb	610 lb	333 lb	dl 777	1,110 lb	84 lb	196 lb	280 lb
Season and Method	Spring	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp
Rate per Acre	30 lb	70 lb	100 lb	30 lb	70 lb	100 lb	30 lb	70 lb	100 lb
Under- Application based on UW Product Name and Recs Analysis	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61
	0-0-39			0-0-39			0-0-0		
Over- Application based on UW Recs	The second second			19-32-0			19-32-61 19-32-61 19-32-61		
Total Credits and Apps	19-32-61			19-32-61			19-32-61		
nd Year N Manure Manure Credit Fert Apps Ib/ac Ib/ac	19-32-61 19-32-61			19-32-61 19-32-61			19-32-61		
Znd Year N Manure Credit Ib/ac	0			0			0		
	0			0			0		
2022 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	0-0-100			0-0-100			0-0-0		
2022 Crop and Tillage	Soybeans 15-20 inch row Spring Chisel, disked			Soybeans 15-20 inch row Spring Chisel, disked			Soybeans 15-20 inch row Spring Chisel, disked		
2021 Crop and Tilage	Corn grain Spring Chisel, disked	W 145000		Con grain Spring Chisel, disked			Spring Chisel, disked		
Ac.	6.1		3			ac	3		
Field Name	FN-1		C NO	74		EN 3	2		

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Field Name	Ac.	2021 Crop and Tillage	2022 Grop and Tillage	2022 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	2022 Legume Credit N Ib/ac	2nd Year N Manure Credit Ib/ac	Manure Fert Apps Ibíac	Total Credits and Apps	Over- Application based on UW Recs	Under- Application based on UW Recs	Under- Application based on UW Product Name and Recs Analysis	Rate per Acre	Season and Method	Field
A 4	5.1	Corn grain Spring Chisel, disked	Soybeans 15-20 inch row Spring Chisel, disked	0-0-100	0	0	19-32-61	19-32-61 19-32-61	19-32-0	0-0-39	Ammonium sulfate (AMS) 21-0-0	30 lb	Spring Incorp	153 lb
											Diammonium phosphate (DAP) 18-46-0	70 lb	Spring Incorp	357 lb
103	Ç										Potassium chloride 100 lb 0-0-61	100 lb	Spring Incorp	510 lb
5	? 2	Spring Chisel, disked	Corn grain Spring Chisel, disked	130-85-85	0	0	132-45- 68	132.45- 68	2-0-0	0-40-17	9-20-30 9-20-30	225 lb	Spring Subsurfac e	4,388 lb
				10 140100							Ammonium sulfate (AMS) 21-0-0	20 lb	Summer Unincorp	975 lb
603	c		,								Urea 46-0-0	220 lb	220 lb Summer Unincorp	4,290 lb
75	n '	Spring Chisel, disked	Corn grain Spring Chisel, disked	130-53-70	0	0	132-45- 68	132-45-	2-0-0	0-8-2	9-20-30 9-20-30	225 lb	Spring Subsurfac e	878 lb
											Ammonium sulfate (AMS) 21-0-0	50 lb	Summer Unincorp	195 lb
											Urea 46-0-0	220 lb	Summer	858 lb

FM3: Producer's Plan Report

Crop Year	2023 Prepare	Prepared for:
Reported For	BONCZYK 1 attn: BONCZ	3ONCZYK 1 IIIn:BONCZYK 1
Printed	2019-02-11	
Plan Completion/Update Date 2018-05-03	2018-05-03	
SnapPlus Version 18.1 built on 2019-01-15	019-01-15	

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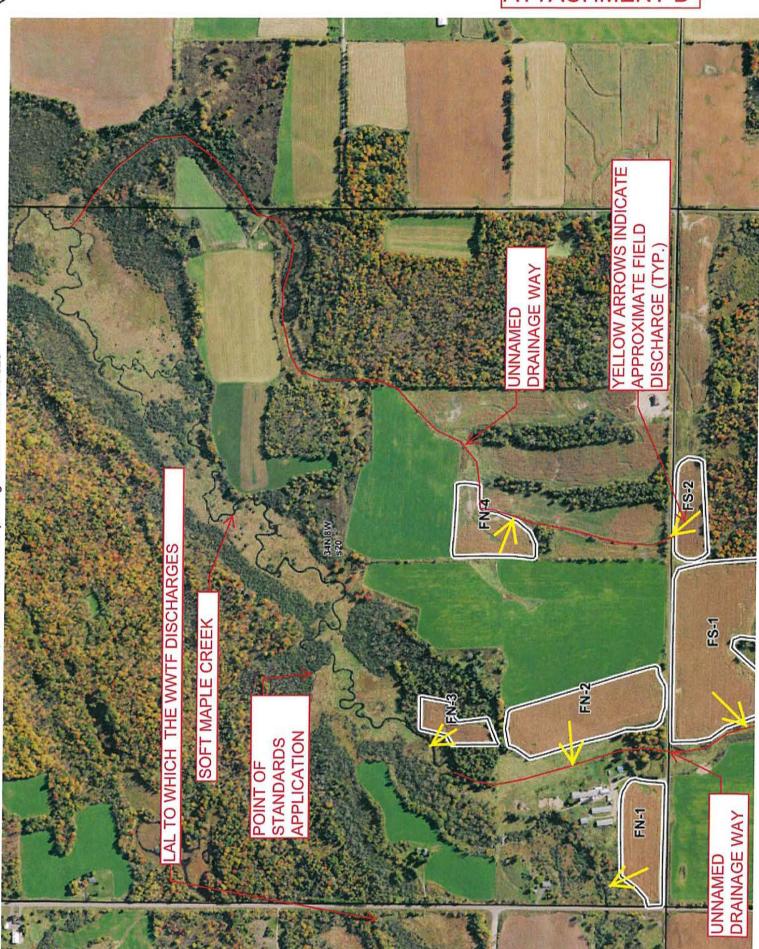
Field Data: 48.5 Total Acres Reported.

Field	1,372 lb	305 lb	1,342 lb	2,498 lb	555 lb	2,442 lb	630 lb	140 lb	616 lb
Season and Mathod	Spring Subsurfac e	Summer Unincorp	220 lb Summer Unincorp	Spring Subsurfac e	Summer Unincorp	Summer	Spring Subsurfac e	Summer Unincorp	Summer
Rate		50 lb	220 lb	225 lb	50 lb	220 lb	225 lb	50 lb	220 lb
Under- Application based on UW Product Name and Recs Analysis		Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0	9-20-30 9-20-30	Ammonium sulfate 50 lb (AMS) 21-0-0	Urea 46-0-0	9-20-30 9-20-30	Ammonium sulfate (AMS) 21-0-0	Urea 46-0-0
	0-0-17			0-0-17			0-0-0		
Over- Application based on UW Recs	2-45-0			2-45-0			2-45-68		
Total Credits and Apps	132-45- 68			132-45- 68			132-45- 68		
Manure Fert Apps Iblac	132-45- 68			132-45- 68			132-45- 68		
2nd Year N Manure Credit F Ib/ac	0			0			0		
	0	To be the second		0			0		
2023 Adjusted Legume Crop Need Credit N lb/ac lb/ac	130-0-85			130-0-85			130-0-0		
2023 Crop and Tillage	Corn grain Spring Chisel, disked			Com grain Spring Chisel, disked			Spring Chisel, disked		
2022 Crop and Tillage	Soybeans 15-20 inch row Spring Chisel, disked			Spring Chisel, disked		Conhome 45 no in-			
Ac.	6.1		\$			o c			
Field Name	FN-1		C N	7-11		EN 3	2		

BONCZYK1

Field	1,148 lb	255 lb	1,122 lb	585 lb	1,365 lb	1,950 lb	117 lb	273 lb	390 lb
Season and Method	Spring Subsurfac e	Summer Unincorp	Summer Unincorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp	Spring Incorp
Rate per Acre	225 lb	50 lb	220 lb	30 lb	70 lb	100 lb	30 lb	70 lb	100 lb
Under- Application based on UW Product Name and Recs Analysis	9-20-30 9-20-30	Ammonium sulfate 50 lb (AMS) 21-0-0	Urea 46-0-0	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61	Ammonium sulfate (AMS) 21-0-0	Diammonium phosphate (DAP) 18-46-0	Potassium chloride 100 lb 0-0-61
Under- Application based on UW Recs	0-0-17			0-28-39			0-0-24		
Over- Application based on UW Recs	2-45-0			19-0-0			19-2-0		
Total Credits and Apps	132.45- 68			19-32-61			19-32-61		
Manure Fert Apps Ib/ac	132-45- 68			19-32-61 19-32-61			19-32-61 19-32-61		
2nd Year N Manure Credit Ib/ac	0			0			0		
	0			0			0		
2023 Adjusted Legume Grop Need Credit N Ib/ac Ib/ac	130-0-85			0-60-100			0-30-85		
2023 Grop and Tillage	Corn grain Spring Chisel, disked			Soybeans 15-20 inch row Spring Chisel, disked			Soybeans 15-20 inch row Spring Chisel, disked		
	Soybeans 15-20 inch row Spring Chisel, disked			Corn grain Spring Chisel, disked			Com grain Spring Chisel, disked		4
Ac.	5.1		ç	C.81		ć			
Field Name	A 4		2	2		Š	7-5-1		

ATTACHMENT D



arm: BONCZYK 1, V18 Generated:1/24/2019, Crop year: 2018, Township Range Section:34N 8W s20

Counties

Township/Range
Areas contributing runoff to direct conduits to groundwater

Nutrient prohibited areas (buffers vary by feature)

Nutrient prohibited areas (drawn manure prohibited areas)

Grassed waterway

Non-eroding channel
Ephemeral erosion channel
Ditch
Gully
Headland stacks Not farmed

☐ Grass filter area
☐ Vegetated buffer
☐ Non-metallic mine

■ Water Sinkhole/other karst feature Other

♣ Municipal wells

▲ County Defined Karst Features

Fields

- Drinking Well

♣ Public well
 ♠ Irrigation well
 ♠ Sinkhole
 ※ Non-metallic mine

Fractured bedrock at surface
 Other direct conduit
 Tile outlet

NM3: Field Data and 590 Assessment Plan

Reported For	DONCETA	Prepared for:
Printed	2019-02-11	BONCZYK 1
Plan Completion/Update Date	2018-05-03	ami.bonoz.in
SnapPlus Version 18.1 built on 2019-01-15	2019-01-15	
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Field Data: 49 Total Acres Reported.

	AT	TACHM	ENT E	
P205 Bal Target Ib/ac		1	0	3 :
Rot P205 Bal Ib/ac		-260	-260	-260
Soil Test P ppm	58	59	59	24
Rot Avg PI	0	0	0	0
SCI	1.0	6.	6.	6.
Rot Avg Soil Loss tfac	0.2	0.2	0.2	0.2
Field "T" Vac	ro	ო	m	4
Report Period	2018-	2023	2018-	2018-
Tillage	SCD- None- None- None- None-	SCD- None- None- None- None-	SCD- None- None- None-	SCD- None- None- None- None-
Rotation	BgAGs- AG-AG- AG-AG- AG	BgAGs- AG-AG- AG-AG- AG	BgAGs- AG-AG- AG-AG- AG	BgAGs- AG-AG- AG-AG- AG
Tiled	Š	2	2	2
Irrig	2	2	2	2
Contour/ Filters	0-300 No/No	No / No	6.1- 0-300 No/No No	No / No
Dist.To Water ft	0 - 300	301-	0 - 300	- 1001 5000
Below Field Stope To Water %	2.1-6	0-2	-12	2.1-6 1001-
F.Sip Len ft	150	150	150	250
F. Sip	σ	Ξ	Ξ	4
Critical Soil Series & Symbol	33C	ROSHOL T 38C	ROSHOL T 38C	FREEON 757B
Ŭ	Rusk	Rusk	Rusk	Rusk
	6.1	Ε	2.8	5.7
FSA				
FSA				
Sub Field Name Farm	<u> </u>	FN-2	FN-3	4 4

P205 Bal Target		
Rot P205 Bal 1		-260
Soil Test P		19
Rot Avg PI	and the Friday	0
Sc	61	1.0
Rot Avg Soil Loss Vac	0.2	0.2
Field "T"	4	4
	2018-	2018-
Tillage	SCD- None- None- None- None- None-	SCD- None- None- None- None- None-
Rotation	BgAGs- AG-AG- AG-AG- AG	BgAGs- AG-AG- AG-AG- AG
Tiled	2	2
lrrig Tiled	8	2
Contour/ Filters	No / No	No / No
Dist. To Water ft	5000	5000
Below Field Slope To Water %	02	0-2
F.Sip Len ft	250	250
F. SIP	4	4
Critical Soil Series & F Symbol	FREEON 757B	FREEON 757B
County	Rusk	Rusk
Acres	19.5	3.9
FSA		
FSA		
Sub FSA Farm Tret		
all a	7 <u>8</u> -	FS-2

Crop Abbreviations	lions	Tillage Abbreviations	viations
Abbreviation	Crop	Abbreviation	Tillage
AG	Alfalfa/Grass	None	None
BgAGs	Barley w/ Alfalfa/Grass Seeding Spring	SCD	Spring Chisel, disked

WQ1: P Trade Report

BONCZYK 1 Reported For

2019-02-11 Printed

attn:BONCZYK 1 Prepared for: BONCZYK 1

> 2018-05-03 Plan Completion/Update Date

SnapPlus Version 18.1 built on 2019-01-15

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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 (Ib 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 tillage, nutrient management practices and estimates of average runoff and sheet and rill erosion for the entering surface waters. These P loss calculations are based on a field's soil test P concentration, crops, The P Trade Report estimates the annual pounds of phosphorus (P) in surface runoff from cropland DNR guidance.

DNRphosphorus@wisconsin.gov Questions? Please contact

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

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

P Trade Report						Ъ	PTP		
Field Name	Soil Series	Soil Symbol	Acres	2018	2019	2020	2021	2002	2002
FN-1	SCONSIN	648B	9	13	က	2	2	-	-
FN-2	ROSHOLT	38C	7	30	2	က	2	7	
FN-3	ROSHOLT	38B	က	4	-	-	-	-	,
FN-4	FREEON	757B	2	15	က	ო	2	-	-
FS-1	FREEON	7578	20	4	7	2	က	7	٠,
FS-2	FREEON	757B	4	10	2	-	-	0	0
Total			49	115	20	15	10	7	2

FM3: Producer's Plan Report

Crop Year 2018
Reported For BONCZYK 1

Prepared for: BONCZYK 1 attn:BONCZYK 1

Printed 2019-02-11

Plan Completion/Update Date 2018-05-03

SnapPlus Version 18.1 built on 2019-01-15

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Field	915 lb	1,665 lb	420 lb	765 lb	2,925 lb
Season and Method	Spring Incorp	Spring	Spring Incorp	Spring Incorp	Spring Incorp
Rate per Acre	150 lb	150 lb	150 lb	150 lb	
Under- Application based on UW Product Name and Recs Analysis	Potassium chloride 150 lb 0-0-61	Potassium chloride 150 lb 0-0-61	Potassium chloride 150 lb 0-0-51	Potassium chloride 150 lb 0-0-61	25-120-188 Potassium chloride 150 lb 0-0-61
Under- Application based on UW Recs	25-3-188	25-3-188	25-0-9	25-0-188	25-120-188
Over- Application based on UW Recs	0-0-0	0-0-0	0-0-0	0-0-0	0-0-0
Total Credits and Apps	0-0-92	0-0-92	0-0-92	0-0-92	0-0-92
Manure Fert Apps Ib/ac	0-0-92	0-0-92	0-0-92	0-0-92	0-0-92
2nd Year N Manure Credit Ib/ac	0	0	0	0	0
	0	0	0	0	0
Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	25-3-280	25-3-280	25-0-101	25-0-280	25-120- 280
2018 Crop and Tillage	Barley w/ Alfalfa/Grass Seeding Spring Spring Chisel, disked	Barley w/ Alfalfa/Grass Seeding Spring Spring Chisel, disked	Barley w/ Alfalfa/Grass Seeding Spring Spring Chisel, disked	Barley w/ Alfalfa/Grass Seeding Spring Spring Chisel, disked	Barley w/ Alfalfa/Grass Seeding Spring Spring Chisel, disked
2017 Crop and Tillage	ldle Land None	Idle Land None	Idle Land None	ldle Land None	Idle Land None
Ac.	2.	1.	2.8	5.1	19.5
Field Name	L.	FN-2	FN-3	A A	FS-1

02/	
SnapPlus Producer's Plan Report	
BONCZYK1	

BONCZYKI				Sna	PPIus P	roducer	SnapPlus Producer's Plan Report	port					02/11/2019	119
Field Name	Ac.	2017 Grop and Tillage	2018 Crop and Tillage	Adjusted Crop Need Ib/ac	2018 Legume A Credit N Ib/ac	2nd Year N Manure Credit F Ib/ac	Manure ert Apps Ib/ac	Total Credits and Apps	Over- Application based on UW Recs	Under- Application based on UW Recs	Product Name and Analysis	Rate per Acre	Season and Method	Field
FS-2	3.9	Idle Land None	Barley w/ Alfalfa/Grass Seeding Spring Spring Chisel, disked	25-58-280	0	0	0-0-92	0-0-92	0-0-0	25-58-188	Pot	150 lb	Spring Incorp	585 lb

FM3: Producer's Plan Report

Prepared for	K1 BONCZYK 1		
2019	BONCZYK	2019-02-11	2040 05 02
Crop Year	Reported For	Printed	Plan Completion/Hadate Date

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	Rate Season and Field Anount Analysis Acre	ride 200 lb Summer Unincorp	Potassium chloride 200 lb Summer 2,220 lb 0-0-61 Unincorp	Potassium chloride 200 lb Summer 560 lb 0-0-61 Unincorp	Potassium chloride 200 lb Summer 1,020 lb 0-0-61 Unincorp	Defeccion obleside 200 It. C.
	Under- Application based on UW Produ Recs	0-20-113 Potassiu 0-	0-20-113 Potassiu 0-	0-0-58 Potassiu	0-0-113 Potassiu 0-1	0-70-113 Potassiu
	Over- S Application based on S UW Recs	0-0-0	0-0-0	52 0-0-0	22 0-0-0	22 0-0-0
	Manure Credits Fert Apps and Ib/ac Apps	0-0-122 0-0-122	0-0-122 0-0-122	0-0-122 0-0-122	0-0-122 0-0-122	0-0-122 0-0-122
2nd Year	N Manure Credit Ib/ac	0	0	0	0	0 0
	2019 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	0-20-235	0-20-235	0-0-180	0-0-235	0-70-235
	2019 Crop and Tillage	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None
	2018 Crop and Tillage	Barley w/ Alfalfa/Grass Seeding Spring Spring Chisel, disked	Barley w/ Alfalfa/Grass			
	Ac.	6.7	#	2.8	5.1	19.5
	Teld Name	F-	FN-2	FN-3	FN 4	FS-1

FM3: Producer's Plan Report

Prepared	1 BONCZYK 1		
2020	BONCZYK	2019-02-11	2049 05 02
Crop Year	Reported For	Printed	Plan Completion/Hindate Date

SnapPlus Version 18.1 built on 2019-01-15

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Field	1,220 lb	2,220 lb	560 lb	1,020 lb	3,900 lb	780 lb
Season and Method	Summer	Summer		Summer		Summer Unincorp
Rate per Acre	200 lb					
Product Name and Analysis	Potassium chloride 200 lb 0-0-61					
Under- Application based on UW Recs	0-20-113	0-20-113	0-0-58	0-0-113	0-70-113	0-40-113
Over- Application based on UW Recs	0-0-0	0-0-0	0-0-0	0-0-0	0-0-0	0-0-0
Total Credits and Apps	0-0-122	0-0-122	0-0-122	0-0-122	0-0-122	0-0-122
Ind Year N Manure Credit Fert Apps Ib/ac Ib/ac	0-0-122	0-0-122	0-0-122	0-0-122	0-0-122	0-0-122
2nd Year N Manure Credit Ib/ac	0	0	0	0	0	0
2020 Legume Credit N Ib/ac	0	0	0	0	0	0
2020 Adjusted Legume Crop Need Credit N Ib/ac Ib/ac	0-20-235	0-20-235	0-0-180	0-0-235	0-70-235	0-40-235
2020 Crop and Tillage	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None
2019 Crop and Tillage	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None	Alfalfa/Grass None
Ac.	6.1	1.1	2.8	5.1	19.5	3.9
Field Name	FN-1	FN-2	FN-3	A 4	FS-1	FS-2

FM3: Producer's Plan Report

Crop Year 2021 Prepared for:

Reported For BONCZYK 1

attn:BONCZYK 1

Printed 2019-02-11

Plan Completion/Update Date 2018-05-03 SnapPlus Version 18.1 built on 2019-01-15 M:IM Drive\2015\2015\2015\467 Weyerhaeuser WWTF\WQT\SNAP PLUS BONCZYK\SNAPPLUS RUNS NEW SOIL TESTS\BONCZYK FINAL Hay -Copy.snapDb

				2nd Year								
2020 Crop and Tillage	2021 Crop and Tillage	2021 Adjusted Legume Crop Need Credit N	2021 Legume Credit N Ib/ac	N Manure Credit Ib/ac	Manure Fert Apps Ib/ac	Total Credits and Apps	Over- Application based on UW Recs	Under- Application based on UW Rens	Ra Product Name and pr	Rate S	Season	Field
Alfalfa/Grass None	Alfalfa/Grass None	0-20-235	0	0	0-0-122	0-0-122	0-0-0	0-20-113	ride 2		Summer	1,220 lb
Alfalfa/Grass None	Alfalfa/Grass None	0-20-235	0	0	0-0-122	0-0-122	0-0-0	0-20-113	Potassium chloride 200 lb		Summer	2,220 lb
Alfalfa/Grass None	Alfalfa/Grass None	0-0-180	0	0	0-0-122	0-0-122 0-0-122	0-0-0	0-0-58	Potassium chloride 200 lb		Summer	999 P
Alfalfa/Grass None	Alfalfa/Grass None	0-0-235	0	0	0-0-122	0-0-122	0-0-0	0-0-113	Potassium chloride 200 lb		Summer	1,020 lb
Alfalfa/Grass None	Alfalfa/Grass None	0-70-235	0	0	0-0-122	0-0-122	0-0-0	0-70-113	Potassium chloride 200 lb		Summer	3,900 lb
Alfalfa/Grass None	Alfalfa/Grass None	0-40-235	0	0	0-0-122	0-0-122	0-0-0	0-40-113	Potassium chloride 200 lb 0-0-61		Summer	780 lb

FM3: Producer's Plan Report

 Crop Year
 2022
 Prepared for: BONCZYK 1

 Reported For Printed
 BONCZYK 1
 attn:BONCZYK 1

 Printed
 2019-02-11
 attn:BONCZYK 1

 Plan Completion/Update Date
 2018-05-03

SnapPlus Version 18.1 built on 2019-01-15

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					2nd Year								
ield Name Ac.	2021 Crop and Tillage	2022 Grop and Tillage	Adjusted Crop Need Ib/ac	2022 Legume Credit N Ib/ac	N Manure Credit Ib/ac	Manure Fert Apps Ib/ac	Total Credits and Apps	Over- Application based on UW Recs	Under- Application based on UW Recs	Application Based on UW Product Name and per Person Analysis Appr		Season	Field
FN-1 6.1	Alfalfa/Grass None	Alfalfa/Grass None	0-20-235	0	0	0-0-122	0-0-122	0-0-0	0-20-113	ide 2	200 lb Sur	Summer	1,220 lb
FN-2 11.1	1 Alfalfa/Grass None	Alfalfa/Grass None	0-20-235	0	0	0-0-122	0-0-122	0-0-0	0-20-113	Potassium chloride 200 lb		Summer	2,220 lb
FN-3 2.8	Alfalfa/Grass None	Alfalfa/Grass None	0-0-180	0	0	0-0-122	0-0-122	0-0-0	0-0-58	Potassium chloride 200 lb		Summer	990 lp
FN-4 5.1	Alfalfa/Grass None	Alfalfa/Grass None	0-0-235	0	0	0-0-122	0-0-122	0-0-0	0-0-113	Potassium chloride 200 lb		Unincorp	1,020 lb
FS-1 19.5	Ą	Alfalfa/Grass None	0-70-235	0	0	0-0-122	0-0-122	0-0-0	0-70-113	Potassium chloride 200 lb			3,900 lb
FS-2 3.9	Alfalfa/Grass None	Alfalfa/Grass None	0-40-235	0	0	0-0-122	0-0-122	0-0-0	0-40-113	Potassium chloride 200 lb Summer 0-0-51	Uni Olb Sur	Unincorp Summer	780 lb

FM3: Producer's Plan Report

Crop Year	2023	Prepared for:
Reported For	BONCZYK 1	attn:BONCZYK 1
Printed	2019-02-11	
Plan Completion/Update Date	2018-05-03	

SnapPlus Version 18.1 built on 2019-01-15

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Over- oplicatio ased on JW Recs	Total Credits Ap and bu Apps U	And Tear N Manure Manure Credits A Credit Fort Apps and Ib/ac Ib/ac Apps	2023 N Total Legume Manure Manure Credits A Credit Fert Apps and I Ib/ac Ib/ac Apps A	2023 N Total Legume Manure Manure Credits A Credit N Credit Fert Apps and 1 Ib/ac Ib/ac Apps	Adjusted Legume Manure Manure Credits A Crop Need Credit N Credit Fert Apps and Iblac Iblac Iblac Apps	2023 N Total Adjusted Legume Manure Manure Credits A Tillage Ib/ac Ib/ac Ib/ac Ib/ac Apps	2022 Crop and 2023 Crop and Crop Need Credit North Fert Apps and Tillage Ib/ac Ib/ac Ib/ac Ib/ac Ib/ac Apps
	22 0-0-122			0 0 0-0-122	0-20-235 0 0 0-0-122	Alfatfa/Grass 0-20-235 0 0 0-0-122	Alfatfa/Grass 0-20-235 0 0 0-0-122
	22 0-0-122	0 0-0-122 0-0-122	0 0 0-0-122 0-0-122	0 0 0-0-122	0-20-235 0 0 0-0-122	Alfalfa/Grass 0-20-235 0 0 0-0-122 None	Alialia/Grass Alialia/Grass 0-20-235 0 0 0-0-122 None None None
	22 0-0-122	0 0-0-122 0-0-122	0 0 0-0-122 0-0-122	0	0-0-180 0 0	AlfalfaCrass 0-0-180 0 0 None	Alfalfa/Grass 0-0-180 0 0
	22 0-0-122	0 0-0-122 0-0-122	0 0 0-0-122 0-0-122	0-0-235 0 0 0-0-122 0-0-122	0-0-235 0 0 0-0-122	Alfalfa/Grass 0-0-235 0 0 0-0-122 None	Alfalfa/Grass Alfaffa/Grass 0-0-235 0 0 0-0-122 None None
	22 0-0-122	0 0-0-122 0-0-122			0 0 0-0-122	Alfalfa/Grass 0-70-235 0 0 0-0-122 None	Alfalfa/Grass Alfalfa/Grass 0-70-235 0 0 0-0-122 None None
	22 0-0-122	0 0-0-122 0-0-122			0 0 0-0-122	0-40-235 0 0 0-0-122	Alfalfa/Grass 0-40-235 0 0 0-0-122 None



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.).

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Historic Road	- ///!!!-\ Ti					haeuser	WI	54895
Project Contact Name					City	2		ZIP Code
Kris Snyder		PO Box 168			Weyer	haeuser	WI	54895
Project Name								
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		● No						
Broker/Exchange Org	anization Name		Contac	t Name				
Address			Phone	Number		Email		
Trade Registration I	nformation //lea	a separate form for ea	A Part Property	N. C. BERTHANDELLE BERTHAND		Department of the Mariana	NAMES OF THE PARTY	TAK AND THE STATE OF THE STATE OF
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Signature of Preparer	1.11				Date	e Signed		
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Authorized Represer		e >	0.8808					WWW. Telegraph
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Signature of Authorized	Representative	•			Date	Signed		
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		Leave Blank - For	Depart	ment Use	Only			
Date Received						Frade Docket Numb	er	
Entered in Tracking Syste	m Yes	Date Entered			1	Name of Departmen	t Reviewer	

ATTACHMENT F



Field FN-2 Looking North

Fields FN-1, FN-2, FN-3, FN-4, FS-1, and FS-2 were seed to a grass alfalfa mix with a Barley nurse crop on approximately May 15 2018. The Barley was taken off as hay and not allowed to reach full maturity.



10-31-18 photo proves 90% ground cover



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

Water Quality Trading Checklist

Form 3400-208 (1/14)

Page 1 of 3

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 In	nformation		Tree of the same of the same		Rivers		7 50 kg	FIX.	Service Service
Permittee Na			Permit Number			Facility Site	Number		
Village of V	Weyerhaeuser		WI- 0020761-08-0)					
Facility Addre					City	*		State	ZIP Code
Historic Ro						haeuser		WI	54895
	act Name (if applicable		1 Millionaria		City	* District to the Property State of			ZIP Code
Kris Snyder		PO Box	168		Weyer	haeuser		WI	54895
Project Name									
WWTF upg		To .	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			10.10()			
Receiving Wa			r(s) being traded		1000	JC 12(s)	,		
Soft Maple	rator Information	Phosphor	ous	THE RESERVE	107	0500010703		- 1729	
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Are any of the	e credit generators in a	different H	JC 12 than the applic		HUC 12	2:			
				No					
Are any of the	e credit generators dow	nstream of	the applicant?	Yes					
				O No					
Will a broker/e	exchange be used to fa	cilitate trad	e?	O Vas	(include o	description and	contact infor	motion	in MOT plan)
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		Secretary and the second		30.000					
Are each of the	nt Trades (Traditional le point source credit ge	Municipal	/ Industrial, MS4, C	AFO)	o with th	oir WDDES n	ormit O	- Control	
requirements?		enerators to	entined in this section	i in compilanc	e with th	eli WDPES p	\sim		
							01	No	
Discharge Type	Permit Number	Name		Contact Info	rmation		Trade Agre	ement	Number
○ Traditional									
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Water Quality Trading Checklist Form 3400-208 (1/14) Page 2 of 3

	s (Traditional Municipal /	Industrial, MS4, CAFO) c	ont.		
Does plan have a narr					Plan Section
a. Summary of dischar	rge and existing treatment in	cluding optimization	O Yes	O N₀	
b. Amount of credit bei	ing generated		○ Yes	O N₀	
c. Timeline for credits a	and agreements		O Yes	O No	,
d. Method for quantifying	ng credits		O Yes	O No	
e. Tracking and verifica	ation procedures		O Yes	O N₀	
f. Location of credit ger	nerator in proximity to receivi	ng water and credit user	O Yes	O No	
g. Other:			Yes	○ No	
Point to Nonpoint Tra Discharge Type	Practices Used to Generate Credits	n, Agricultural, Other) Method of Quantification	Trade Agre	ement	Have the practice(s) been formally registered?
 Urban NPS Agricultural NPS Other	Permanent Vegetation	Snap Plus			● Yes ○ No ○ Only in part
○ Urban NPS○ Agricultural NPS○ Other					YesNoOnly 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					YesNoOnly in part
○ Urban NPS○ Agricultural NPS○ Other					YesNoOnly in part
Does plan have a narrati	ve that describes:				Plan Section
a. Description of existing	land uses		Yes	O No	Section E
b. Management practices	s used to generate credits		Yes	○ No	Section G
c. Amount of credit being	generated		Yes	O No	Section K
d. Description of applicab	ole trade ratio per agreement/	management practice	Yes	○ No	Section I
e. Location where credits	will be generated		Yes	○ No	Attachment A
. Timeline for credits and	agreements		Yes	O No	Section k
g. Method for quantifying	credits		Yes	O No	Section D

Water Quality Trading Checklist Form 3400-208 (1/14) Page 3 of 3

Does plan have a narrative that describes:			Plan Section
h. Tracking procedures	Yes	O No	Attachment H
i. Conditions under which the management practices may be inspected	Yes	O No	Section M
j. Reporting requirements should the management practice fail	Yes	○ No	Attachment H
k. Operation and maintenance plan for each management practice	Yes	O No	Attachment H
I. Location of credit generator in proximity to receiving water and credit user	Yes	○ No	Atta. A & D
m. Practice registration documents, if available	Yes	○ No	Attachment F
n. History of project site(s)	Yes	○ No	Section B
o. Other:	○ Yes	O No	
 The preparer certifies all of the following: I am familiar with the specifications submitted for this application, and I believed addressed. 			
 I am familiar with the specifications submitted for this application, and I believed addressed. I have completed this document to the best of my knowledge and have not 	excluded pertir		
 I am familiar with the specifications submitted for this application, and I believed. 	excluded pertired per	nent informa	ion.

Operation, Maintenance & inspection Plan Bonczyk Soft Maple Dairy Farm Inc.

For Water Quality Trading Village of Weyerhaeuser

The goal of the operation and maintenance plan is to ensure that the perennial grass cover will persist. The primary purpose of the grass cover is to reduce the phosphorus and sediments that leave the farm and degrade water quality on Soft Maple Creek. The secondary purpose is to ensure that the grass cover is managed and maintained to produce a grass forage source for livestock. Success of the secondary purpose will be the best assurance that the primary goal is being met; a lush and vigorous stand of grass will have a high stem count maximizing trapped sediments and utilizing those sediments as nutrients to be removed by the following hay crop.

Section 1 - Seeding Year 2018

- A. Seeding and site preparation will be as outlined in the Water Quality Trading Plan
 - Germination of the nurse crop generally occurs within 10-20 days of planting
 - Germination of the grass seed generally occurs within 10-30 days of planting
- B. **Harvest of the nurse crop** as hay at the boot stage. Upon harvest of the nurse crop, the grass stand will be evaluated.
 - Areas of poor germination larger than 1000 square feet will be reseeded by hand or with a drill.
 - Areas where the seed has been lost due to erosion will be reseeded as above but covered with biodegradable erosion mat.
 - Any gulley erosion will be repaired either by tillage or importing topsoil, reseeded and covered with biodegradable erosion mat.
- C. Clipping of the weeds/grass hay will be done if weeds become competitive with the grass, the grass shall not be mowed lower than 6" or after September 1st.
- D. Harvesting of the grass hay will be done when the grass matures. The grass shall not be mowed lower than 6" or after September 1st.
- E. Inspection Frequency shall be monthly in the seeding year. Page 4 of this Operation & Maintenance Plan is an inspection form that shall be completed for each inspection. Inspections shall be completed by the County Conservationist or Morgan & Parmley Ltd. These records shall be kept on file with the Clerk and be available for inspection by the DNR. Additionally, the Certified Waste Water Treatment Plant Operator for the Village of Weyerhaeuser shall make a statement, as a comment, on the monthly discharge report certifying the condition of the management practices and that they are being properly maintained.

Section 2 - 2019 and beyond

- 1. Weed Management,
 - Harvest of the hay will remove annual weeds, maintain perennial weeds, and prevent woody vegetation from developing.
 - Woody Vegetation herbicide shall be applied to woody plants that encroach from the wood edge. If woody vegetation is allowed to persist and grow into trees it will shade out and kill the grass cover thereby creating a potential for soil erosion.
- 2. Erosion control. It is unlikely that there will be erosion issues or gully formation after the first year; the site has no highly erodible lands and no evidence of valleys or gullies in the fields. If erosion becomes evident with monthly inspections, it will be repaired as listed below:
 - Erosion will be filled by tillage or by importing topsoil
 - The area will be seeded with the original grass mix as listed in the water quality trading plan.
 - Erosion mat will be applied to the reseeded area.
 - American Excelsior Curlex Sediment logs will be placed 50' on center if the repaired erosion was a gully.
- **3.** Harvesting. Forage will be harvested when the grass is mature and at a height and frequency necessary to maintain a productive stand.
 - The grass shall not be cut shorter than 4"; grass regrows from growing points at the base of the leaf blades, low cutting height removes the energy stored for regrowth in the stem, delaying regrowth of the field, and future yield potential.
 - Frequency of the cutting will be dictated by the forage quality required.
 - The field should not be harvested after September 1st to allow for winter ground cover.
- 4. Nutrient Management. The field will be operated to draw down high phosphorus level as based upon UW soil tests. This will be done by removing the grass hay crop without replacing Phosphorous. The nutrients will be drawn down to the optimum level on the soil test, at which point in time fertilizer can be applied to maintain the optimum level on the soil test. The fertilizer application rate recommended on the soil test report will be used to apply the correct amount of fertilizer necessary to maintain the optimum level.
- 5. Soil Sampling. Soil sampling will be completed on a 4 year schedule to monitor the nutrients and maintain them at a level no higher than the optimum range. The soil tests will be used to prescribe the correct fertilizer rate and composition. Fields will be divided into approximately 5 acre sections. One composite sample will be taken from each section. The sample will be comprised of not less than 10 cores taken in the traditional "W" pattern. Composite samples will be sent to the UW Soil & Forage Analysis Lab in Medford. Fields with multiple composite samples will be averaged to make the recommendations. For a detailed description of the sampling procedure refer to UW Extension Bulletin A2809.
- 6. Inspection is vital to successful management. As previously stated, the frequency of inspection during the seeding year shall be monthly during the growing season. The following inspection and reporting procedure shall be used:
 - Monthly Reporting (<u>seeding year</u>) Each month the Conservationist or Engineer shall file
 the report with the Clerk assuring that the management practices installed are being
 maintained in a manner consistent with the WQT plan. Complete the form found on page
 4. Additionally, the Operator shall make a statement, as a comment, on the monthly

discharge report certifying that management practices established are in good condition and properly maintained. This monthly update will also be used to record the following:

- o Harvest dates
- o Approximate hay yields to determine nutrient removal rate
- Quarterly Reporting (second year) Quarterly reporting, using the Form on page 4, shall
 be completed by the Soil Conservationist or Engineer and the report filed with the Village
 Clerk. Additionally, the Operator shall continue to make a statement, as a comment, on
 the monthly discharge report certifying that management practices established are in
 good condition and properly maintained.
- Semi-Annual Reporting (third year and beyond) Semi-annual reporting, using the Form
 on page 4, shall be completed by the Soil Conservationist or Engineer, and the report
 filed with the Village Clerk. Additionally, the Operator shall continue to make a
 statement, as a comment, on the monthly discharge report certifying that
 management practices established are in good condition and properly maintained.
- Notification of Problems with Permanent Grass Cover The Village shall notify the DNR within 7 days of becoming aware that the phosphorus reduction credits used by the Village are not being generated as approved in the WQT Plan. The Village will work to restore the vegetative cover and update the DNR on the progress of corrective measures.

WATER QUALITY TRADING INSPECTION FORM FOR THE VILLAGE OF WEYERHAEUSER

LOCATION: THE NE-NW, NW-NE of Sec. 29, and SW-SW, SE-SW, NE-SW, NW-SE, SW-SE of Section 20, all located in T.34N.-R.8W., Town of Stubbs, Rusk County.

Date:		nspector:		Weather:
	pliance (che	ircle one): Monthly eck appropriate box) y crop	Quarterly	Semi-Annual
	3	non-compliance:		
		uired:		
Phosphorus of Phosphorus of	redits used redits availa	e to the DNR required: Ye (annual report only): ble (annual report only): ctions for failed practice		
Field #	Failed prac	tice & reason		Credit Deduction
FIELD # WHERE PHOTO WAS TAKEN	# OF PHOTOS TAKEN	GENERAL CONDITION O	F FIELD	

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

Notice of Intent to Conduct water quanty rading

Form 3400-206 (1/14)

Page 1 of 2

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 Info	ormation		A-1717E - 19 16 16				12-01-5	では	
Permittee Nam			Permit Number		F	acility Site Number			- 58
Village of W			WI- 0020761-08-	-0			9		
Facility Addres					City		57,300,000,000,000	ZIP Co	
Historic Road					Weyerha	euser	WI	548	
1005-00 ATM 05-05	t Name (if applicable				City		1 1 2 2 2 2 2	ZIP Cod	
Kris Snyder		PO Box	168		Weyerhad	euser	WI	548	95
Project Name									
WWTF Upgr		-				Contribution (de			
Receiving Water			r(s) being traded		HUC				
Soft Maple C		Phospho				00010703			
	in a point or nonpoir results - <u>http://dnr.wi.</u>				oint source onpoint sou	dominated rce dominated			
	tor Information	ning spirite				fire the state of	all to the	200 SC	To be the
	r type (select all that	Permi	tted Discharge (non-	MS4/CAFO) [Urban n	onpoint source disch	arge		
apply):		Permi	tted MS4		Agricult	ural nonpoint source	discharg	je.	
		Permi	tted CAFO	Ī	Other -	Specify:			
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				O Unsu					
Are any of the o	redit generators dow	actroom of	the entirent?		116				
Ale ally of the C	redit generators dow	isueam or	trie applicant?	O Yes					
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				O Unsu	ire				
Will a broker/exc	change be used to fa	cilitate trad	e?	O Yes;	Name:				
				No	-			-11	
				O Unsu	re				
Point to Point	Trades (Traditional	Municipal	/ Industrial Discha	rge, MS4, CA	FO)	建筑基础的		A ST	1 300
Discharge Type	001 00 104 DOX (19724) - 0	Name		Contact Addre		Is the point sour currently in com permit requirem	pliance		
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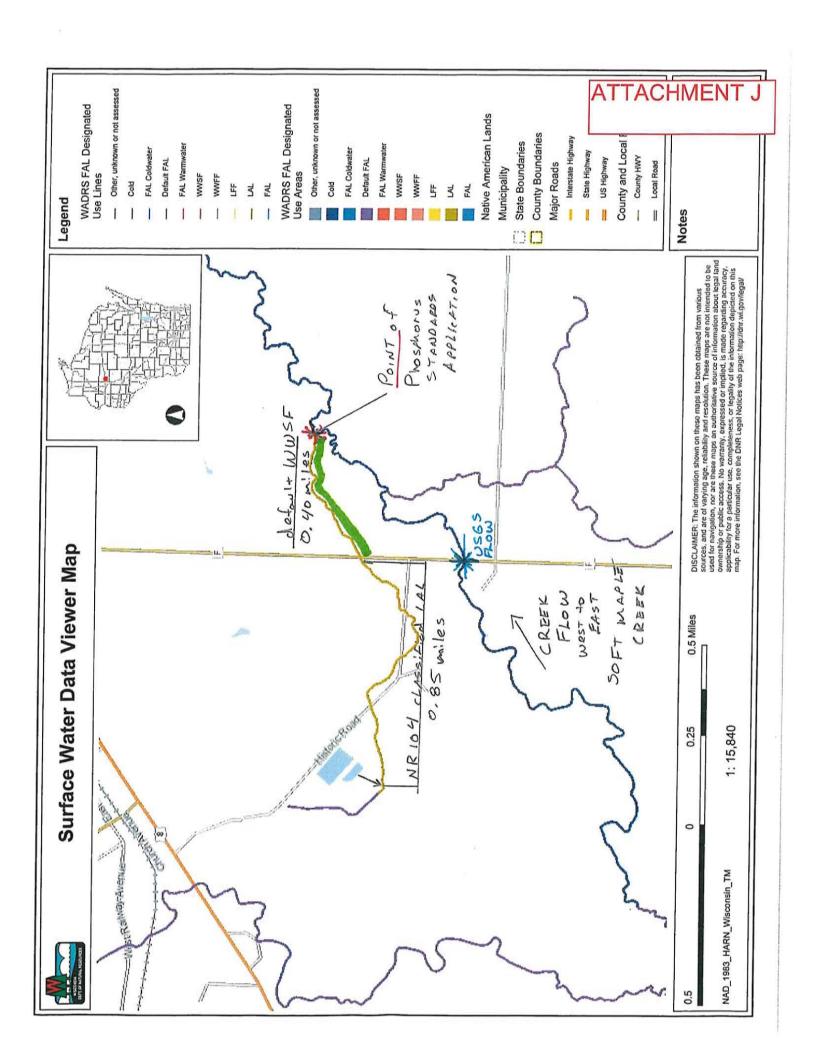
Notice of Intent to Conduct Water Quality Trading Form 3400-206 (1/14) Page 2 of 2

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

List the practices that will be used to generate credits:

The Village of Weyerhaeuser proposes to enter into a long term agreement with John Bonczyk, W14028 Amacoy Lake Road, Weyerhaeuser, WI 54895. The agreement property includes part of the: N 1/2 -NW 1/4 and N 1/2 - NE 1/4 of Section 29; and part of the S 1/2 of the SW 1/4 and NE 1/4 of the SW 1/4 of Section 20; all located in T.34N. - R 8W. Approximately 50± acres of rowcrop production will be converted to long term perennial vegetation. The anticipated phosphorus reduction to the stream is 200#±.

Method for quantifying credits generated	 ☐ Monitoring ☑ Modeling, Names: Snap 	Plus,	
	Other:		
Projected date credits will be available:	05/01/2019		
The preparer certifies all of the follow	ing:		
 I am familiar with the specifications so addressed. 		id I believe all applicable items in	this checklist have been
I have completed this document to the	e best of my knowledge and ha	ave not excluded pertinent inform	ation.
Signature of Preparer		Date Signed	
Jany Jotham		1-29-	19
Authorized Representative Signature	网络医长春 计分类 电动电路	STATE STATE OF THE PROPERTY OF THE PARTY OF	MANUFACTURE CONTRACTOR OF THE PROPERTY OF THE
certify under penalty of law that this docu	ment and all attachments were	prepared under my direction or	supervision Based on my
inquiry of those persons directly responsib	le for gathering and entering to	ne information, the information is	to the best of my knowledge
and belief, accurate and complete. I am av	vare that there are significant i	penalties for submitting false infor	mation, including the
possibility of fine and imprisonment for known	owing violations.	• • • • • • • • • • • • • • • • • • • •	materi, moldanig are
Signature of Authorized Representative	^	Date Signed	109
10,00	_	1/2/	H



CORRESPONDENCE/MEMORANDUM -

DATE: July 18, 2017 FILE REF: 3200

TO: Steve Smith, Madison – WT/3

FROM: Lonn Franson, NOR - Hayward

SUBJECT: Village of Weyerhaeuser: Review of Phosphorus WQBEL limit and Point of Standards

Application for Water Quality Trading (WQT) for Trade Ratio Determination

This memo is in response to the Village's request for the re-review of effluent limit recommendations per the amended facility plan dated June 2, 2017. An initial planning limit memo review was completed in July 2013 which evaluated a number of different discharge scenarios. The subsequent alternative chosen by the facility plan was a discharge to groundwater via seepage. However, due to additional soil investigation efforts the seepage discharge option was determined not viable.

The amendment has since concluded that treatment will consist of expansion of the stabilization pond system with an increase of design flow to 0.060 mgd day annual average influent flow, an increase of the original 0.040 mgd, but would retain the daily maximum flow rate of 0.240 mgd. (The 0.240 mgd daily maximum flow was included in the first permit (0.040 mgd design flow x 6 as a conservative rate for hydraulic protection of bank and aquatic life in LAL receiving water.) The current discharge rate limit of 0.24 mgd will remain, requiring 90 day of discharge at full design capacity. Thus the entire months of September, October, and November may be necessary for the discharge as currently provided in the WPDES permit. Although the amendment suggested a spring discharge period, this period will not be evaluated for permit authorization for the following reasons:

- 1. Inflow and Infiltration (I & I) has recently become a significant problem in the Village, resulting in the increase influent design capacity to 0.06 mgd vs 0.04 mgd. I & I efforts are currently ongoing with implementation efforts of CMOM. Reductions of I & I are expected, and will be required as a compliance schedule as a result of a significant SSO event and issuance of a Notice of Noncompliance to re-establish actual flows to historical levels of less than 0.04 mgd.
- 2. Department expectation of the Village and consultant was continued use of stabilization ponds as a treatment system would require a minimum of a 300 day storage capacity, thus the initial approval to groundwater to be able to achieve meeting groundwater standards. Historical spring discharges from stabilization ponds are not reliable in achieving surface water effluent limits for BOD, TSS, and ammonia due to reasons of; the challenges of biological activity in the ponds during the winter (they freeze to the near bottom) resulting in biological inactivity and turnover, climatic variability, and the small window of opportunity in the month of May when effluent quality can achieve meeting limits.
- Stabilization pond systems when designed to discharge during a fall only period have proven to
 produce an excellent quality effluent with significant total nitrogen removal, lower phosphorus
 values, and BOD and TSS values in the single digits.

Phosphorus Point of Standard Application Surface Water Criteria:

Revisions to administrative rules regulating phosphorus took effect on December 1, 2010. These rule revisions include additions to ch. NR 102 (s. NR 102.06), which establish phosphorus standards for surface waters. Revisions to ch. NR 217 (s. NR 217, Subchapter III) establish procedures for determining water quality based effluent limits for phosphorus, based on the applicable standards in ch. NR 102.



Phosphorus criteria in s. NR 102.06 do not apply to limited aquatic life waters [s. NR 102.06 (6) (d)]. At some time in the future, the Department may adopt phosphorus criteria based on new studies focusing on limited aquatic life waters. The guidance suggests that during the interim, water quality based effluent limitations should be based on the criteria and flow conditions for the next stream segment downstream (or downstream lake or reservoir, if appropriate). The discharge location of the wastewater from Weyerheauser is classified as follows (map attached):

NR 104.10 table 8, applicable criteria limited aquatic life (LAL diffused surface water – non-continuous tributary) from the point of discharge to CTH "F" (0.85 miles in length). (Note - the limits specified in NR Permits since 1982 have contained secondary limits as allowed under NR 104.02(4) for fill and draw mode of operation for wastewater treatment lagoons.)

CTH F to the confluence of Soft Maple Creek is not defined in NR 104 description, and is thus classified by default as full fish and aquatic (Warm Water Sport Fish – (WWSF)). This reach is approximately 0.40 miles in length and appears incorrectly identified as LAL in the Surface Water Date Viewer Map (modified corrected version attached).

Soft Maple Creek: Full Fish and Aquatic Life (FFAL) - Cold Water (CW) at the confluence with the WWSF tributary.

For the purpose of providing a calculated phosphorus limit the Point of Standard Application for determining the limit and upstream/downstream determination for establishing WQT trade ratios will be defined at the confluence of Soft Maple Creek and the default WWSF tributary. Typically the point of standards would start at the first reach of full fish and aquatic life, in this situation the in-stream low flow value would be assumed 0.0 cfs at CTH F. However, as Weyerheauser will be discharging during the fall season at a time not associated with nutrient concerns (non-growing season), with concentrations and a mass that is not excessive (less than 200#'s/year expected), and will not likely be retained in the short length of the WWSF reach, the nutrient impact on the 0.4 mile default WWSF reach is anticipated to be little or none. It is also noted ammonia limits previously calculated have also been applied at same point of standards application, the confluence of Soft Maple Creek as this location was the most restrictive downstream segment.

Section NR 102.06(3)(a) specifically names reaches of rivers for which a phosphorus criterion of 0.1 mg/l applies. For other stream segments that are not specified in s. NR 102.06(3)(a), s. NR 102.06(3)(b) specifies a phosphorus criterion of 0.075 mg/l. The phosphorus criterion of 0.075 mg/l applies for Soft Maple Creek.

For calculation of the limit using <u>0.075 mg/L criterion</u>, low values and background phosphorus concentrations are necessary.

Stream Flow: Upstream from the tributary confluence with Soft Maple Creek (flowing west to
east for sections 19 & 20) Stream flow data provided by USGS at Station # UC6 - at the bridge on
CTY "F" sec. 19.

$$7Q10 = 0.13$$
 cfs, $7Q2 = 1.8$ cfs

(Noted the value used may be slightly conservative as the flow is not inclusive of all drainage area above the point of application confluence.)

Background Phosphorus data evaluation:

Previous limit reviews did not evaluate background phosphorus concentrations for several reasons.

- Upstream ambient sample data was inadequate.
- Assumed zero dilution stream flow, thus limit was equal to criterion.

Assumed future discharge would be to groundwater via seepage.

However, with the change in Facility Plan option and a change in approach to the point of standards application as addressed above, use of best professional judgment to provide a reasonable best estimate of background phosphorus for Soft Maple Creek is necessary for a limit calculation. An estimated background concentration value of 0.058 mg/L is determined acceptable for limit calculation use after an evaluation of phosphorus data available in the Soft Maple Watershed HUC 10.

The entire HUC10 phosphorus data set included 210 data points from 2000 - 2016. median value = 0.0375 mg/L.

Data set values with lab comments of sample integrity were subsequently deleted for evaluation. Data set values from several lakes were deleted as not being representative for stream evaluation. The remaining data set was broken down into several main categories identified below.

- Chippewa River 52 data points, median = 0.0345 mg/L
- Devils Creek 12 data points, median = 0.055 mg/L
- Little Soft Maple 23 data points, median = 0.061 mg/L
- All creek data 63 data point, median = 0.058 mg/L

As the Chippewa River data did not seem appropriate to include for a small stream estimate, both Devils Creek and Little Soft Maple Creek appeared to be representative of local land use and similar geography to the area of investigation upstream from the effluent confluence with Soft Maple Creek. Taking the average of these two small stream (creek) median values provided a value of 0.058 mg/L. This value coincidentally is the same median value of all small stream (creek) data of 0.058 mg/L. (data file included as electronic attachment.)

The conservation of mass equation is described in s. NR 217.13 (2)(a) for phosphorus water quality based effluent limitations (WQBELs).:

Limitation = [(WQC)(Qs+(1-f)Qe) - (Qs-fQe)(Cs)]/Qe

Where:

WQC = 0.075 mg/l for Maple Creek

Qs = 100% of the 7-Q₂ of 1.8 cfs.

Cs = background concentration of phosphorus in the receiving water pursuant to s. NR 217.13(2)(d). Estimated at 0.058 mg/L

Qe = effluent flow rate of 0.24 mgd = 0.37 cfs

f = the fraction of effluent withdrawn from the receiving water, 0

$$[(0.075)(1.8 + 0.37) - (0.058 - 0)(1.8)]/0.37 = 0.157 \text{ mg/L}$$

Rounded to two significant digits the final recommended limit is = 0.16 mg/L

Phosphorus WQBELs of 300 ug/L or less are considered stringent limits and are expressed in two forms as a six-month average limit equal to the calculated limit value (0.16 mg/L) - and as a monthly average limit set three times greater than the WQBEL value (0.48 mg/L). Mass limits are not necessary or required as the receiving water, or downstream receiving water does not meet the conditions of NR 217.14 (1)(a).

The facility may consider obtaining new and updated USGS flow values at the point of standard application in addition to collection of ambient instream data collection for recalculation of limits.

CORRESPONDENCE/MEMORANDUM ·

DATE:

August 29, 2017

FILE REF: 3200

TO:

Steve Smith, Madison - WT/3 Sheri Snowbank - Spooner

FROM:

Lonn Franson, NOR - Hayward

SUBJECT: Village of Weyerhaeuser: Amended Phosphorus WQBEL Limit Calculation

Revised - Recommended Phosphorus Monthly Average Limits by Specific Month

Month	Monthly Average Phosphorus Limit (mg/L)
September	0.23
October	0.29
November	0.33

This memo is in review response to the Village's submittal of new low flow data provided by USGS in a letter to the Village dated August 25, 2017. "low flow statistics that you requested for Soft Maple Creek near Weyerhaeuser, located about 0.5 mi. downstream from County F about 1.2 mi. southeast of Weyerhaeuser, WI. Lat 45°24'52.0", Long 91°23'34.3", (approximate USGS Site ID 05356651, drainage area = 19.3 mi^2). This location is slightly downstream from the location where the statistics were previously calculated (UC-6)."

Soft Maple Creek near Weyerhaeuser (~05356651) Low-Flow Statistics

Period	Discha	rge (cfs)
	Q _{7,2}	Q _{7,10}
Annual	2.2	2.0
January	3.8	3.1
February	3.6	3.0
March	4.2	3.4
April	11.9	8.7
May	6.9	5.1
June	4.8	3.7
July	3.5	2.8
August	3.1	2.5
September	3.4	2.1
October	4.7	2.8
November	5.6	3.9
December	4.6	3.2

The previously prepared July 2017 memo calculated a single limit the for the months of September, October, and November using an annual 7Q2 value of 1.8 cfs at a point upstream of standards application. As specific 7Q2 values are provided for each of these three months of the discharge period, individual monthly average limits are provided below. All conditions (criteria, Cs, and Qe) of the previous limit calculation memo remain the same as provided in the calculation below.



The conservation of mass equation is described in s. NR 217.13 (2)(a) for phosphorus water quality based effluent limitations (WQBELs).:

$$Limitation = [(WQC)(Qs+(1-f)Qe) - (Qs-fQe)(Cs)]/Qe$$

Where:

WQC = 0.075 mg/l for Soft Maple Creek

Qs = 100% of the 7- Q_2

- 1. September = 3.4 cfs
- 2. October = 4.7 cfs
- 3. November = 5.6 cfs

Cs = background concentration of phosphorus in the receiving water pursuant to s. NR 217.13(2)(d). Estimated at 0.058 mg/L

Qe = effluent flow rate of 0.24 mgd = 0.37 cfs

f = the fraction of effluent withdrawn from the receiving water, 0

September

$$[(0.075)(3.4 + 0.37) - (0.058 - 0)(3.4)]/0.37 = 0.23 \text{ mg/L}$$

October

$$[(0.075)(4.7 + 0.37) - (0.058 - 0)(4.7)]/0.37 = 0.29 \text{ mg/L}$$

November

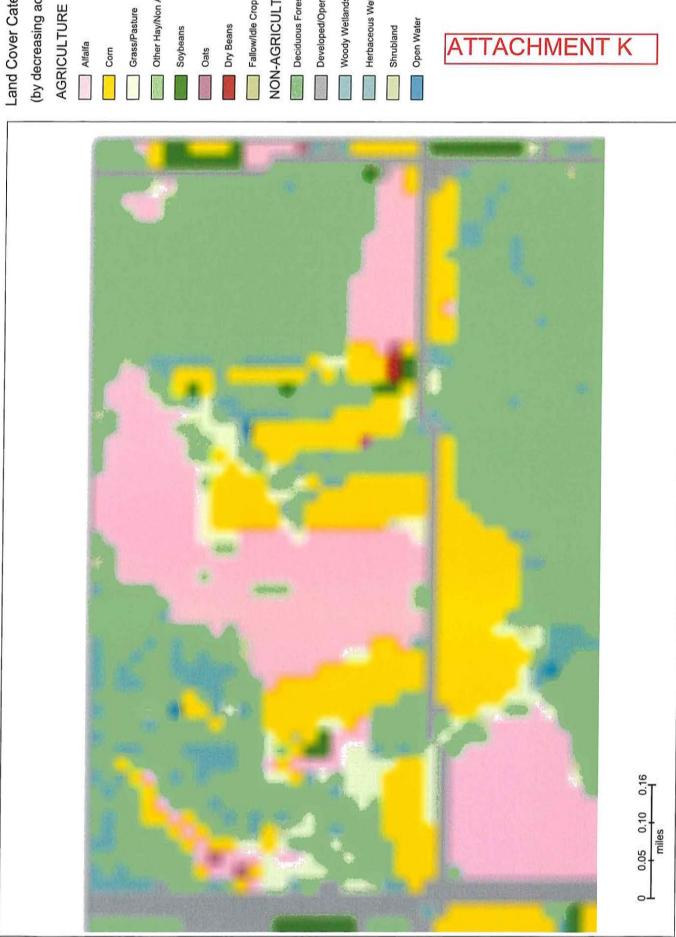
$$[(0.075)(5.6 + 0.37) - (0.058 - 0)(5.6)]/0.37 = 0.33 \text{ mg/L}$$

Phosphorus WQBELs of 300 ug/L or less are considered stringent limits and are typically expressed in two forms - as a six-month average limit equal to the calculated limit value - and as a monthly average limit set three times greater than the WQBEL value. However, the six month average limit is no longer recommended as the monthly limit is specific to the individual monthly flow value.

Mass limits are not necessary or required as the receiving water, or downstream receiving water does not meet the conditions of NR 217.14 (1)(a).

CDL2015 Area of Interest







Land Cover Categories

(by decreasing acreage)

Alfalfa

Other Hay/Non Alfalfa Grass/Pasture

Soybeans

Dry Beans

Fallow/Idle Cropland

NON-AGRICULTURE*

Deciduous Forest

Developed/Open Space

Woody Wetlands

Herbaceous Wetlands

Shrubland

Open Water

TACHMENT K



CDL2016 Area of Interest





Developed/Open Space

Woody Wetlands

Other Hay/Non Alfalfa

Soybeans

Clover/Wildflowers

Herbaceous Wetlands

Shrubland



CDL2017 Area of Interest



