Appendix N - Point to Nonpoint Water Quality Trading Plan Template

Last Revised: March 2026

Note: This template is provided as a reference and starting point for anyone developing a Water Quality Trading (WQT) Plan and is not required to be used. Additional information not mentioned in this template may be required for plan approval due to circumstances unique to a given trade.

Helpful Resources

- The WQT Guidance Document and more tools and information about WQT are available here: WDNR Water Quality Trading Website (https://dnr.wisconsin.gov/topic/Wastewater/WaterQualityTrading.html).
- Please direct questions to the WDNR regional coordinator assigned to the county the credit user is located in, listed here: regional water quality trading coordinator (https://dnr.wisconsin.gov/sites/default/files/topic/Wastewater/coordinatorlist.pdf)
- Additionally, numerous examples of approved WQT plans can be found here: AM/WQT Project Map Webpage (https://dnr.wisconsin.gov/topic/Wastewater/AmWqtMap.html). Click on a blue project pin to see attached documents.

Example Cover Page

The following cover page represents the minimum information that should be included in the beginning of a WQT plan. Other cover page formats are acceptable as long as all required information is included.

[Insert Permittee Name]

Water Quality Trading Plan for [insert pollutant for which credits will be used]

Permit Number: [Insert permit no.]

Date: [insert date of plan submittal]

Certification:

The undersigned hereby certifies that this Water Quality Trading Plan is accurate and correct to the best of their knowledge.

[Insert Permittee Name]

By: [insert signature]

[Print name]

[Insert title]

[Insert address line 1]

[Insert address line 2]

Phone: [Insert phone number]

Email: [insert email]

Prepared by: [insert name and/or affiliation of preparer]

[Insert address line 1]

[Insert address line 2]

[Insert phone number]

[insert email]

Example Table of Contents

The following table of contents is based on this water quality trading plan template. Specific sections of the template, and the associated table of contents, may not be applicable for all trades. Both the template and table of contents can be modified to reflect circumstances unique to a particular water quality trade. Any necessary attachments should also be listed in the table of contents as an appendix. Including a list of figures and tables in the table of contents is welcome but not required.

The example appendices above include attachments that are required for all trades. Additional attachments may be needed depending on the trade and the level of detail included in the narrative of the trading plan. Any relevant maps, photos, or modeling inputs/outputs that are not included within the narrative should be included as an appendix and referenced in the text. If the trade is on permittee-owned land, the agreement between DNR and the permittee should be included as an appendix. All other landowner agreements should be retained by the parties subject to the agreement(s), but do not need to be included in the WQT Plan or as an appendix. Some other documents that do not need to be included in the plan or appendices are the credit user's permit, permit fact sheet, raw DMR data, sanitary sewer maps, facility flow schematic, or old versions of the trading plan if there are old versions.

---

1 Executive Summary

Briefly state the purpose of the WQT trade and the management practice(s) (MP) being used to generate credits so that the reader can quickly grasp the overarching goal of this WQT Plan. Provide an overview map that indicates the locations of all credit generating sites involved in this trade, the credit-user, the credit-user outfall, and the outlines of HUC 12 sub-watersheds. Indicate if the trade is to meet effluent limits based on an approved total maximum daily load (TMDL). If the trade is within an approved TMDL, additional requirements apply and must be addressed throughout the sections of this template. More information about trades within TMDLs can be found in WQT Guidance Section 2.5, "Location of Water Quality Trades."

Mapping resources:

- The Surface Water Data Viewer can be used to view location of the credit user, the credit-user outfall, and HUC 12 sub-watershed outlines. For assistance with this tool, please contact your regional coordinator. Find it here: WDNR Surface Water Viewer (https://dnrmaps.wi.gov/H5/?Viewer=SWDV)
- The Watershed Restoration and Protection Viewer can be used to view TMDL boundaries. For assistance with this tool, please contact your regional coordinator. Find it here: Watershed Restoration and Protection Viewer (https://dnrmaps.wi.gov/H5/?viewer=WI_TMDL&layerTheme=Healthy%20Watersheds%20Assessment)

---

2 Facility Background

The purpose of subsections 2.1 – 2.3 is to demonstrate the permittee's need for pollutant credits by providing background information and calculating the number of credits needed.

2.1 Current Pollutant Treatment

What is the current treatment process for the pollutant?

2.2 Future Considerations

How will this pollutant treatment process perform over the next permit term? If any upgrades are planned, describe the upgrade and the anticipated effluent quality. What will the average effluent pollutant concentrations be over the next permit term?

2.3 Credits Needed

Show the calculations for the number of credits needed based on the difference between the historic pollutant mass loading associated with the effluent quality and the applicable permit limit(s). See WQT Guidance Section 2.4, "Calculate Pollutant Offset Needed" for further instructions on determining number of credits needed. Include a table of average effluent concentrations and flows. Use the most representative data available when determining the number of credits needed to ensure that you have enough credits to remain in compliance throughout the permit term. Monthly Discharge Monitoring Report (DMR) data can be requested from the appropriate Regional WQT Coordinator (https://dnr.wisconsin.gov/sites/default/files/topic/Wastewater/coordinatorlist.pdf). Also consider including a factor of safety in the credit calculations to account for potential operational changes, population changes, or other changes that could increase the number of required credits in the future. The table below provides an example of how the number of credits needed can be calculated. See subscript notes on each column header to understand how the number was calculated.

TABLE 1: EXAMPLE ANNUAL CREDIT NEED CALCULATION USING DMR DATA

Month	Average Phosphorus Concentration (mg/L)	Total Monthly Flow (Millions of Gallons)	Total Monthly Load (lbs/mo)[1]	Applicable WQBEL (mg/L)	Allowable Monthly Load (lbs/mo)[2]	Monthly Exceedance: WQT Credits Needed (lbs/mo)[3]
JAN	1.00	20.00	166.8	0.075	12.51	154.29
FEB	1.00	20.00	166.8	0.075	12.51	154.29
MAR	0.80	30.00	200.16	0.075	18.765	181.395
APR	0.50	30.00	125.1	0.075	18.765	106.335
MAY	0.50	20.00	83.4	0.075	12.51	70.89
JUN	0.80	25.00	166.8	0.075	15.6375	151.1625
JUL	1.00	25.00	208.5	0.075	15.6375	192.8625
AUG	1.00	25.00	208.5	0.075	15.6375	192.8625
SEP	1.50	25.00	312.75	0.075	15.6375	297.1125
OCT	1.50	20.00	250.2	0.075	12.51	237.69
NOV	1.00	20.00	166.8	0.075	12.51	154.29
DEC	1.00	20.00	166.8	0.075	12.51	154.29
Total Credits Needed (sum of all monthly values)						**= 2047.47**

1 Total Monthly Load (lbs/mo) = Average Phosphorus Concentration × Total Monthly Flow × 8.34

2 Allowable Monthly Load (lbs/mo) = Total Monthly Flow × Applicable WQBEL × 8.34

3 Monthly Exceedance: WQT Credits Needed (lbs/mo) = Total Monthly Load – Allowable Monthly Load

3 Baseline and Proposed Conditions of Credit Generating Site

The purpose of subsections 3.1 – 3.6 is to demonstrate how the MP at the credit generating site will reduce pollutant loading to the applicable receiving waterbody. Some trading plans will have only one MP and others will have multiple. The information listed in the subsections below must be provided for each individual MP that is planned to generate credits. This template is laid out such that all of Chapter 3 is focused on a single MP; however, the WQT plan can include a separate chapter for each MP or may address each MP within each subsection. Having a separate chapter for each MP may make more sense if MPs are very different, whereas having each subsection address all MPs may make sense when MPs are similar. The information should be clearly labeled for each MP.

3.1 Credit Generator Location

Provide a field-scale map of the credit generating site that shows the extent of the proposed MP. Having an aerial imagery base layer is helpful for WDNR reviewing staff. Include the USGS watershed HUC 12 number for the credit-generating site. See WQT Guidance Appendix B “Eight Easy Steps to Finding Your 12-Digit HUC” for help identifying the watershed. Provide a general description of the MP to be implemented and describe whether the agreement is on privately-owned or permittee-owned land. If it is on permittee-owned land, include the agreement with WDNR as an appendix. For all other landowner agreements, certify that a binding written legal agreement has been reached and is retained by all parties subject to the agreement. The agreements, other than those with DNR, do not need to be included in the WQT Plan or appendix.

3.2 Pollutant Source

This subsection should describe the source of the pollutant load being reduced by the proposed credit generating site. This section is intended to be a brief summary of the MP being implemented.

3.3 Baseline Conditions

The purpose of subsections 3.3.1 – 3.3.3 is to quantify the pollutant load present under current conditions. This information will be used to calculate pollutant reduction resulting from implementation of the MP.

3.3.1 Modeling Approach

Different modeling tools may be appropriate to use for different sites and MP types. WQT Guidance Section 3.1 “Quantifying Pollutant Load Reductions” provides more information about which model to use. This section should state which model and version of the model are being used to simulate baseline conditions and why the model was selected.

3.3.2 Model Inputs and Data Collection Procedures

Provide a description of inputs used in the model and the data collection procedures utilized to obtain site specific inputs. Data collection needs depend on the MP type. See WQT Guidance Appendix D for more information about data collection when using SnapPlus and WQT Guidance Appendix F for

streambank projects. All data used for credit generation needs to be clearly documented in this narrative or included in an appendix and referenced here.

3.3.3 Modeled Baseline Load

State the yearly annual pollutant load under baseline conditions that you determined using your model.

3.4 Proposed Conditions

The purpose of subsections 3.4.1 – 3.4.3 is to quantify the pollutant load after MP implementation.

3.4.1 Modeling Approach

Different modeling tools may be appropriate to use for different MP types. WQT Guidance Section 3.1 "Quantifying Pollutant Load Reductions" provides more information about which model to use. Guidance Appendix H also provides a list of modeling tools that are best suited for certain MPs. This section should include an overview of the approach taken to model proposed conditions.

3.4.2 Model Inputs

Provide a description of inputs used in your model.

3.4.3 Modeled Proposed Load

Summarize the pollutant load under the proposed conditions that you determined using your model.

3.5 Trade Ratio

The purpose of this subsection is to calculate the MP's trade ratio. A trade ratio is used to account for uncertainty in pollutant reductions so that WDNR staff can ensure that the MP is improving water quality. A trade ratio of 2:1, for example, indicates that for every 2 pounds of pollutant reduced by the MP, 1 pound of credit can be claimed by the credit user. See WQT Guidance section 3.4 "Trade Ratios" to learn more.

3.5.1 Trade Ratio Factors

A trade ratio is calculated using the equation below. Four individual factors (delivery, downstream, equivalency, and uncertainty) are summed to calculate the trade ratio. Use this section to describe calculations for each individual factor. Depending on the MP, some individual factors may be represented as a 0.

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

3.5.2 Trade Ratio Calculation

Sum the individual factors for the MP's final trade ratio.

3.6 Management Practice Details

The purpose of subsections 3.6.1 – 3.6.3 is to create an operation and maintenance plan to keep the MP in functioning condition so that it continues to reduce pollutant load and generate credits. See each subsection for more information.

3.6.1 Relevant Technical Standards

List the applicable NRCS technical standards for the MP(s) used in the trade. WQT Guidance Appendix H "Management Practices and Associated Information" provides a list of some but not all potential MPs and applicable NRCS technical standards.

3.6.2 Establishment of the MP

Provide a timeline for establishment of the MP. This could include a construction timeline for some MPs. It may include seeding and plans for the first couple years of maintenance. Identify who is responsible for each step. Reference the Water Quality Trading Management Practice Registration Form here and attach it as an appendix.

3.6.3 Operation and Maintenance Plan

Provide an Operation and Maintenance (O&M) Plan for the length of the MP agreement in the appendix and reference it in this subsection. Identify who is responsible for which parts of the plan. NRCS Technical Standards and sample O&M plans can be found on the Field Office Technical Guide for Wisconsin: https://efotg.sc.egov.usda.gov/#/state/WI/documents. Navigate to Section 4 "Practice Standards and Supporting Documents" and then expand "Conservation Practice Standards & Support Documents" to find information for each Technical Standard. After the MP is established, it should be maintained in accordance with the Operation and Maintenance Plan. A poorly maintained MP will fail to generate credits and could result in noncompliance for the credit user. See WQT Guidance Section 3.4 "Timing of Credits" for more information about the duration of credits and maintenance requirements.

---

4 Generating Credits

The purpose of chapter 4 is to calculate how many credits are generated per year for each MP involved in the trade. Baseline pollutant load, proposed pollutant load, and trade ratio were already determined earlier in this template and can now be plugged in to these calculations. It's important to note that calculation of credits generated is different for trades that occur within approved TMDLs. Trades that do not occur in a TMDL area can look to the "Non-TMDL Credit Calculation Table" below as an example. Trades that do occur in TMDL areas can look to the "TMDL Credit Calculation Table" below as an example. In trades within TMDL areas, the credit threshold (or interim floor, if applicable) is applied to the total reduction achieved per credit generating site to arrive at interim and long-term credits, and then trade ratios are applied per MP to determine the trading credits available. The duration of interim credits should be stated in the plan narrative. Trades within TMDLs should see WQT Guidance section 3.3 "Interim vs. Long-term Credits" for more information.

TABLE 2: NON-TMDL CREDIT CALCULATION TABLE - EXAMPLE CALCULATIONS NEEDED TO DETERMINE NUMBER OF CREDITS GENERATED PER MP PER YEAR OF THE PERMIT TERM IN A NON-TMDL TRADE.

	Year 1	Year 2	Year 3	Year 4	Year 5
MP Site 1					
Baseline Pollutant Load	700				
Proposed Pollutant Load	100				

	Year 1	Year 2	Year 3	Year 4	Year 5
Trade Ratio	3:1				
(Baseline load – proposed load)/trade ratio	(700-100)/3				
=Credits	200				
MP Site 2					
Baseline Pollutant Load	900				
Proposed Pollutant Load	200				
Trade Ratio	2:1				
(Baseline load – proposed load)/trade ratio	(900-200)/2				
=Credits	350				
Yearly Credits Generated (sum credits from each MP in a given year)	550				
Yearly Credits Needed (calculated in section 2.3)					

TABLE 3: TMDL CREDIT CALCULATION TABLE* - EXAMPLE CALCULATION OF CREDITS GENERATED PER MP PER YEAR IN TMDL AREAS.

	Year 1	Year 2	Year 3	Year 4	Year 5
MP Site 1					
Baseline Pollutant Load	500				
TMDL Reduction (Looked up from TMDL appendices based on practice location)	83%				
TMDL Credit Threshold = (Baseline Pollutant Load*(100-TMDL Reduction %))	85				
Proposed Pollutant Load	50				
Interim Credits = (Baseline-Credit Threshold)	415				
Long Term Credits = (Credit Threshold – Proposed Pollutant Load)	35				
Trade Ratio	3:1				
Interim Credits with Trade Ratio Applied	138				
Long Term Credits with Trade Ratio Applied	12				
Yearly Credits Generated** (sum credits from each MP in a given year)	150				
Yearly Credits Needed (calculated in section 2.3)					

* This table is only applicable to trades not using SnapPlus. Additional steps not represented in this table are needed to accurately calculate credits in TMDL areas when using SnapPlus. See WQT Guidance Appendix D, with special attention to the subsection titled "Using the P Trade Report within Approved TMDL Watersheds" for more information about this.

**Interim Credits are only available for 10 years from the practice installation date. After 10 years, only long-term credits will remain.

5 Tracking, Inspecting, and Reporting

The purpose of subsections 5.1 – 5.3 is to describe how the MPs will be monitored during and after implementation. See each subsection for more details.

5.1 Credit Usage Tracking

Describe the means of tracking credits used throughout the permit term. There is a tracking spreadsheet available for use that WDNR can provide to the credit user. Credits are reported monthly on eDMRs.

5.2 Monthly DMR Certification Statement

Each month the permittee shall certify that the nonpoint source management practices installed to generate pollutant reduction credits are operated and maintained in a manner consistent with that specified in the approved water quality trading plan. Such a certification may be made by including the following statement as a comment on the monthly discharge monitoring report:

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

5.3 MP Inspection and Reporting

Use this subsection to describe MP inspection protocols, the frequency of MP inspection, what will be included in site inspections, who is responsible for site inspections, and how annual reporting will be handled. At a minimum, site inspections must occur annually, or more frequently depending on the practice and the site conditions. Consult with WDNR staff to establish an appropriate frequency of inspections. Site inspection reports should include the date of the inspection, name of the inspector, photos, and should reference the O&M Plan to describe the current condition of the MP. Describe how any involved landowners will be notified of site inspections and any issues identified. Also describe how WDNR will be notified and how the situation will be rectified if a MP is found to be in poor condition. Annual reports should be provided to WDNR and should include all site inspections completed for the reporting year. Include templates for site inspections and annual reports in the appendix.

5.4 WDNR Inspections

Describe the conditions under which WDNR may inspect the MPs in this trade. Alternatively, copy and paste the standard statement provided below:

> Any WDNR authorized officer, employee, or representative has the right to access and inspect the credit generating practice(s) so long as the trade agreement and this Water Quality Trading Plan remain in effect.

Appendices

A – Practice Registrations (Form 3400-207)

Forms can be found under the "Implementation" tab on this page: https://dnr.wisconsin.gov/topic/Wastewater/WaterQualityTrading.html.

Some practice registration forms may not get filled out until after the trading plan is submitted and approved. Appendix A is a placeholder for adding them whenever they are available.

B – WQT Checklist (Form 3400-208)

Forms can be found under the "Implementation" tab on this page: https://dnr.wisconsin.gov/topic/Wastewater/WaterQualityTrading.html.

C – Modeling Result Outputs

Any modeling result outputs not included in in the narrative should be included here and referenced in the text so that readers know where to find them. It's recommended that outputs are included in the appendix if they are long and make the narrative difficult to navigate.

D – Operation & Maintenance Plans

Insert O&M Plans for all MPs included in this WQT Plan. Reference this appendix in template section 3.6.3 so that readers can easily locate O&M Plans.

E – Site Inspection Template

Insert a template to be used for site inspections of MPs in this WQT Plan. Reference this appendix in template section 5.3 so that readers can easily locate Site Inspection Templates.

F – Annual Report Template

Insert a template to be used for annual reports to WDNR on the MPs in this WQT Plan. Reference this appendix in template section 5.3 so that readers can easily locate the Annual Report Template.