Appendix C – Nonpoint Source (NPS) Implementation

Last Revised: March 2026

1.1 Introduction

This appendix addresses nonpoint source implementation for the water quality trading (WQT) compliance option. It can also be used for the adaptive management (AM) compliance option. It is critical to the success of local WQT or AM programs that WPDES permittees coordinate with or hire people that have agricultural NPS implementation skills. A skilled NPS implementer should have the experience and relationships with agricultural producers and landowners necessary to implement nonpoint source control measures. In addition, a good understanding of best management practices (BMPs) and engineering design would also be among the skills necessary for implementation.

In Wisconsin, there are: 1) county land conservation department (LCD) staff working at a county and watershed level to control nonpoint source pollution; 2) non-governmental organizations; 3) private consultants and (4) the Wisconsin Water Quality Trading Clearinghouse, who can serve this role. Throughout this appendix, these potential implementation entities will be referred to as "NPS implementers".

This appendix outlines the roles that NPS implementers should play in the WQT or AM programs and the skills necessary for AM/WQT programs to be effective and successful in agricultural areas. Entities or parties, who are considering serving this role, are encouraged to read through this appendix and carefully evaluate their skills against the skills necessary to do the agricultural NPS implementation work in local AM/WQT programs. The potential workload for NPS implementers participating in AM/WQT programs includes the following, which are detailed more fully in subsequent sections of this appendix:

- Assisting the WPDES permit holder in evaluating compliance options – AM vs. WQT
- Developing AM or WQT plans,
- Working with landowners to implement management measures,
- Tracking where management measures are implemented, and
- Reporting on progress in the AM/WQT areas.

The purpose of this appendix is to:

- Supplement the existing AM/WQT guidance with information for the **agricultural** "nonpoint source (NPS) implementers" that may be assisting WPDES permittees to meet the requirements of the AM/WQT compliance options,
- Define and clarify roles related to NPS implementation of watershed-based pollutant reduction,
- Reduce uncertainties related to NPS pollutant reduction's role in meeting WPDES permit requirements, and

- Outline what "NPS implementers" can do to make WQT and AM successful.

1.2 Role of Nonpoint Source Implementers in WQT & AM

The WQT and AM guidance documents each recommend that permittees evaluate their compliance options before the WPDES permit is up for renewal. Permittees are encouraged to contact NPS implementers about potential AM and/or WQT projects because they generally have the necessary expertise and information to understand the NPS pollution control needs in a watershed. Thus, NPS implementers may be asked by permittees to assist in the evaluation and feasibility of WQT or AM in a particular watershed or action area.

Evaluating WPDES Permit Compliance Options

Evaluating a watershed to determine if there are eligible nonpoint pollution sources for WQT or AM is the first step a permittee will need to do to select a WPDES permit compliance option. In many cases, permittees may approach NPS implementers to assist in this evaluation step. Table C1 outlines some of the information that a NPS implementer may be asked to provide.

TABLE C1: COMPARISON OF STEPS BETWEEN AM AND WQT

Activity	AM	WQT
Assist in determining sources of NPS pollutant loading in a watershed	X	X
Gather and provide inventory of historic and current BMP project data to establish if there is landowner participation and willingness to work collaboratively and manage NPS pollution in a watershed.	X	X
Provide existing inventory data or gather additional data to confirm the potential for pursuing additional management measures and quantify the potential reduction	X	X
Provide guidance in identifying and selecting critical areas to target for NPS reductions.	X	
Provide guidance in identifying and selecting potential credit generators.		X

Given these factors, NPS implementers should consider the following:

- Does the NPS implementer have the technical capacity and infrastructure – appropriate technical expertise, data systems, screening tools, modeling expertise, etc. – to meet the data and information needs of the permittee?
    - If no, is the NPS implementer willing to review related materials prepared by another entity regarding project feasibility?
- Does the NPS implementer have sufficient staff resources to devote time to the investigatory phase of an WQT or AM project?
    - If yes, will the NPS implementer participate as a partner, free-of-charge, or will a fee for services be necessary?

- If no, will it be necessary to require a fee for services to provide adequate staff resources for the WQT or AM project?

- Is there a need to develop a memorandum of understanding (MOU) or contract between the NPS implementer(s) and WPDES permittee to provide information and/or services during the investigatory phase of an WQT or AM project?

Regardless of the funding and contractual issues, NPS implementers, again, serve as a bridge between the WPDES permittees and the critical information they need about the agricultural land use in a watershed. However, there is no requirement on the NPS implementer's part to participate in an AM or WQT plan. Local priorities, resources, and goals should be considered when approached by a permittee to assist in implementation of these programs. Keep in mind that participating in the implementation process may assist in accomplishing other local programmatic goals and priorities.

1.3 Assisting with Plan Development

A WQT or AM plan is developed in much the same way as a County Land and Water Resource Management Plan, a Priority Watershed Plan, a Lake Management Plan, a TMDL Implementation Plan, or other watershed-based plans. Figure C1 outlines the major tasks that need to be addressed when developing a WQT or AM plan. The permittee may seek assistance with some or all of these tasks, which can be categorized in two phases: data collection and assessment.

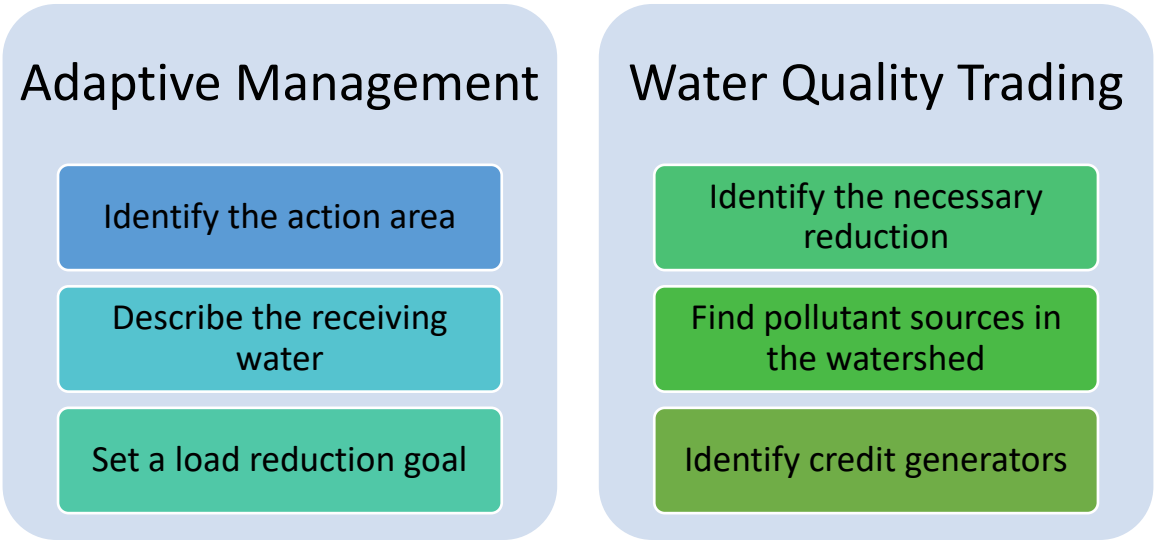

FIGURE C1: TASKS FOR DEVELOPING AM AND WQT PLANS

The data collection phase includes tasks related to identifying a project area, calculating potential load reductions, and identifying critical source areas. Table C2 outlines the steps included in this phase.

TABLE C2: DATA COLLECTION PHASE[5]

Data Collection Phase	Step 1	Step 2
Goal	**Conduct an Inventory (Identify sources of pollution)**	**Identify Potential Loading (Locate critical areas or credit generators)**
Tasks	Identify 12-digit HUCs	Identify existing agricultural practices
Tasks	Collect information on physical features in watershed	Rank areas by pollutant generating capability from high to low
Tasks	Collect current and historic BMP information	Rank areas by delivery potential from high to low
Tasks	Project potential future BMP information	Identify critical areas or potential credit generators as high in load and delivery (see Figure C3)

Sample templates of data collection tables and maps for an example watershed are provided in Section 5 of the Adaptive Management Technical Handbook. The level of detail needed in the data collection phase will depend on the ability of the permittee to commit resources to the project and whether a cursory feasibility analysis is requested or a more sophisticated analysis to lay out the final groundwork for WQT or AM plan development.

In some cases, NPS implementers may want to run typical cropping practices and soil conditions through available models, such as SnapPlus, to evaluate the feasibility for pollutant reductions on a field, within a watershed and/or to identify critical source areas. In other cases, approximating pollutant source and delivery factors may be sufficient to help with these tasks. Source factors represent the amount of phosphorus available on the land, while transport factors represent the mechanisms by which phosphorus is moved across the landscape and delivered to receiving waters as shown in Figure C2.

[5] Not all elements identified in this table will need to be completed for WQT in cases where supply greatly exceeds the demand for credits.

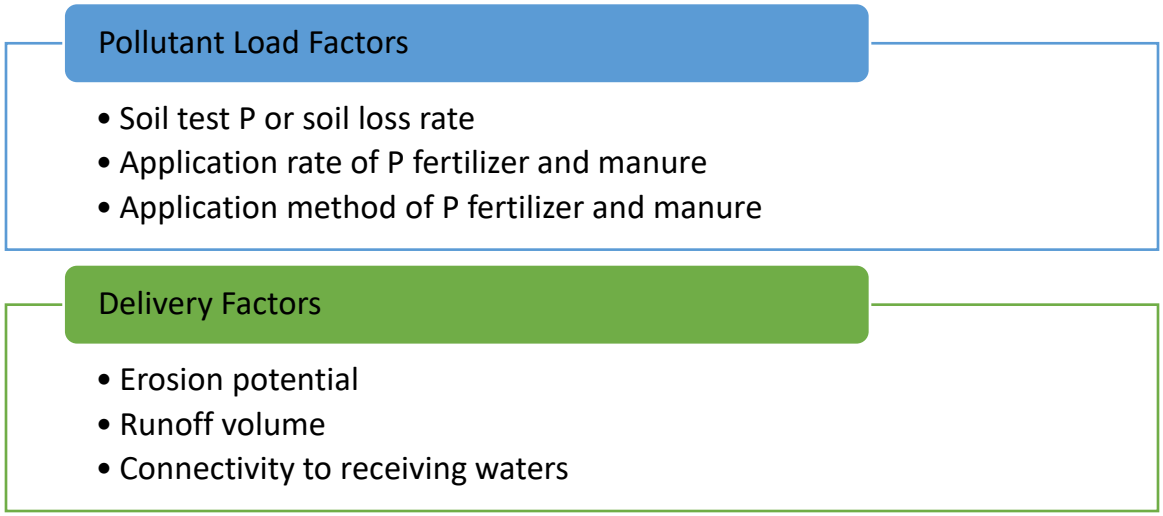

FIGURE C2: SOURCE & DELIVERY FACTORS

With the completion of the data collection phase, the assessment phase is to identify practices that are cost-effective and feasible in reducing pollutant loads. Table C3 outlines the steps involved in the assessment phase.

TABLE C3: ASSESSMENT PHASE

Assessment Phase	Step 3	Step 4
Goal	**Propose Corrective Measures**	**Estimate Pollutant Reductions**
Tasks	Utilize available technical standards	Utilize existing models, such as SnapPlus, APLE Lots, etc.
Tasks	Utilize performance standards as initial benchmarks	Use quantifiable methods to estimate reductions when models are not available
Tasks	Consider location and feasibility	Identify practices for which no quantifiable method is available; consider whether these are a good fit for project
Tasks	Consider relative cost of practices	Factor in trade ratios for WQT - to account for uncertainty associated with modeling calculations, practice types and pollutant transport and delivery to surface waters

Once the data collection and assessment phases are complete, the information should be provided to the permittee to determine how the project fits with overall compliance goals. Certain projects may better suit different compliance strategies. Key considerations often lie in the quantification of pollutant reductions from practices. WQT relies upon model results with a high degree of certainty at time of project installation. AM offers more flexibility in quantifying reductions over time, perhaps via monitoring over a number of years.

The final phases for WQT and AM plan development vary slightly. For WQT, modeling of proposed practices is used to calculate available credits. The WQT plan will identify the quantity of credits necessary for the permittee to comply with the WPDES permit conditions. These credits are used to offset the WQBELs established in the WPDES permit to meet the discharge requirements for the receiving water at the point of standards

application. A NPS implementer may assist in conducting the modeling for proposed practices to assist in calculating phosphorus reductions and then available credits. Appendix D provides information regarding how to utilize SnapPlus to quantify phosphorus credits.

For AM, there is the requirement to conduct in-stream water quality monitoring because the measure of success for an AM project is based upon improving in-stream water quality. In-stream monitoring is collected at the point of standards application. Other in-stream sampling points may be advantageous for the project, such as in an upstream tributary stream. Edge of field or BMP monitoring is not required. The AM plan will need to include a monitoring strategy. A NPS implementer may be interested in participating in this phase if they currently conduct or plan to conduct monitoring in the area. Table C4 highlights the tasks associated with developing a monitoring plan for AM.

TABLE C4: MONITORING PLAN PHASE FOR AM

Monitoring Phase	Step 5
Goal	**Establish long-term monitoring station**
Tasks	Decide where and when to monitor
Tasks	Set water quality assurance protocols
Tasks	Identify who will collect and analyze samples

In addition to the data provided in the five steps above, the AM plan will also need to identify potential implementation partners, where necessary, and develop an implementation schedule with clearly identified milestones. The information collected in steps one through five is critical to fulfill the requirements for the AM plan. It is also important to note that NPS implementers have discretion to select their level of involvement for each of these steps.

1.4 Implementing a WQT or AM Plan

There are a number of factors an NPS implementer should consider when partnering with a permittee to implement a WQT or AM plan. The factors discussed in this section include contracts, responsibility, funding, regulatory authority, marketing, implementing BMPs, water quality monitoring, and TMDLs. Over time, these factors may need to be revisited as more WQT and AM programs are implemented in Wisconsin and more experience is gained by permittees, NPS implementers and regulatory agencies.

Contracts Between NPS Implementers and Permittees

With the exception of the Wisconsin Water Quality Trading Clearinghouse, it is not required for NPS implementers to enter into a contract with permittees. However, there may be benefits for some NPS implementers to enter into contracts to clearly define the scope of work and resources that will be provided. When a NPS implementer is approached by a permittee to assist in implementing a WQT or AM plan, a number of considerations may be discussed prior to agreeing to the contract:

- What BMPs are being proposed to comply with the goals of the plan or strategy?

- What watershed(s) is/are being targeted?
- What role will the NPS implementer play in:
    - Conducting pre- and post-inventory work,
    - Contacting landowners,
    - Identifying appropriate BMPs,
    - Modeling pollutant load reductions,
    - Assisting in the development of agreements,
    - Designing of practices,
    - Conducting construction oversight of practices,
    - Verifying practice installation and maintenance,
    - Tracking and reporting to the permittee, and
    - Monitoring pre/post-water quality?
- Does the NPS implementer have the appropriate staff and skills to conduct the work and still meet the other goals and priorities of the organization?
- What is the timeline for compliance under the WPDES permit compliance schedule for the current permit term, as well as future permit terms?
- Are there enough potential pollutant loading sources to meet the goals of a WQT or AM plan?
- What risks, liability and responsibilities is the NPS implementer willing to accept as part of implementing a WPDES permit compliance option for a point source?

Once the terms of a contract are agreed upon by both parties, contracts may be reviewed by legal staff that represent or serve both parties, as well as committees and boards necessary to approve such contracts. Education and outreach may be necessary to bring persons ultimately approving such contracts up to speed on the advantages and disadvantages of partnering with a point source implementing WQT or AM.

Responsibility

The WPDES permit specifies dates and deadlines to meet certain components of a WQT or AM plan. NPS implementers will need to be aware of these compliance dates when planning projects; however, the permittee retains the responsibility of meeting the permit conditions as the permit holder. Many factors can delay or prevent a practice from being installed in a timely manner; availability of equipment and supplies, soil conditions, weather, design delays, permit approvals, etc. Thus, it is recommended that NPS implementers work with permittees in advance of applicable permit deadlines to avoid these timing conflicts.

In WQT, the responsibility associated with permit conditions rests solely with the permittee. The shift of permit requirements from the permittee to another entity is not allowed under the legal framework of the Clean Water Act or U.S. EPA's Water Quality Trading Policy. This means permit violations resulting from failure to generate adequate nonpoint credits cannot be shifted from the credit user to the credit generator. Both WDNR and EPA enforcement resides solely with the credit user or permittee. Contractual remedies such as financial penalties for failure to generate credits are allowed; however, such remedies need to reside in contracts between the credit buyer and credit generator and are not subject to WDNR or EPA review, nor factored into enforcement remedies for failure to comply with permit requirements.

WDNR has attempted to mitigate the risk associated with WQT by establishing procedures for what occurs if a practice fails, by requiring use of applicable WI NRCS technical standards for design, and accepted modeling techniques to quantify credits, applying trade ratios to account for uncertainty associated with modeling results or site conditions and recommending that practices be fully paid for only after being installed.

For AM, specifying minimum phosphorus reductions and applicable WI NRCS technical standards can help mitigate risk. Results from in-stream monitoring are the primary compliance mechanism for determining whether applicable water quality standards are being achieved. Similar to WQT, the responsibility associated with the permit conditions rests solely with the permittee. However, the installation and maintenance of more practices than the minimum requirement will help offset these risks.

Funding

With the selection of WQT or AM as their compliance option, the primary responsibility lies with permittees to fund the associated watershed projects. As a party to implementation of an WQT/AM plan, an NPS implementer may be asked to assist the permittee with locating supplemental funding options. NPS implementers need to consult with NPS-related funding programs to determine if funding may or may not be used for WQT or AM projects. Some Wisconsin grant programs administered by WDNR or DATCP have restrictions on the use of funding for WPDES permit compliance. For example, federal funding under s. 319 of the Clean Water Act has the following restrictions that would make a project or practice ineligible for s. 319 funding or state match of s. 319 funding:

1. If a project is specifically listed in an AM plan consistent with s. NR 217.18, Wis. Adm. Code.
2. If a practice will be credited toward the achievement of a WPDES permit performance goal.
3. If a practice is not consistent with the goals of the State's Nonpoint Source Program Management Plan.

The DATCP Surface Water Resource Management program has similar restrictions for using SWRM funds for WPDES permit compliance, see s. ATCP 50.40(3)(b)13., Wis. Adm. Code (https://docs.legis.wisconsin.gov/document/administrativecode/ATCP%2050.40(3)(b)13).

Further information on these restrictions are available in the section on Implementing BMPs.

Regulatory Authority

In many cases, there are local, state, or federal authorities that impact the development and implementation of any NPS pollution control project. These authorities need to be considered when implementing an AM/WQT plan. It is important for agricultural producers and landowners to understand the difference between participating in a voluntary effort, such as these point source compliance options, versus complying with local, state, and federal NPS regulatory requirements. Non-governmental organizations, the Wisconsin Water Quality Trading Clearinghouse and private consultants acting as NPS implementers may need to work with local or state authorities to ensure the landowners are operating in compliance with applicable local and state regulations and programs. This may require these groups to work closely with a local or state governmental agency to address or verify regulatory requirements as part of implementing WQT or AM plans.

Local Authority: Local authorities may include town, village, city or county ordinances, involving zoning, livestock siting, animal waste, manure storage, shoreland zoning, storm water construction, building codes, etc. These

ordinances are administered at the local level. When implementing a WQT or AM plan, any projects conducted within a local jurisdiction are expected to comply with local ordinances and applicable permitting requirements. For example, if a proposed project involves the construction of manure storage, all applicable building setbacks and permitting requirements would be required to be met as part of the project. If there are questions related to local authority and implementation of WQT and AM plans, permittees should consult with legal counsel and review local authorities, authorizations, and jurisdictions to determine appropriate courses of action. As a NPS implementer, permittees may ask for assistance in identifying what local authorities apply to proposed projects.

Agricultural Performance Standards & Prohibitions (ch. NR 151, Wis. Adm. Code): When working with nonpoint sources, it is expected that management measures implemented through a WQT or AM plan will ultimately result in compliance with applicable ch. NR 151, Wis. Adm. Code, performance standards and prohibitions. The WDNR realizes that in some cases, it may take multiple years to implement management measures to meet applicable ch. NR 151, Wis. Adm. Code, performance standards. If management measures installed as part of a WQT plan do not ultimately result in compliance with applicable performance standards, higher trade ratios may be required as outlined in Appendix H of Guidance for Implementing Water Quality Trading in WPDES Permits. During the development of the WQT or AM plan, NPS implementers are recommended to contact the WDNR if management measures will not result in compliance with applicable performance standards to discuss ch. NR 151, Wis. Adm. Code, compliance strategies, and timelines. Table C5 provides an overview of the ch. NR 151, Wis. Adm. Code, agricultural performance standards that reduce nutrient or sediment loading to surface waters and improve water quality. These ch. NR 151, Wis. Adm. Code, performance standards are most likely to apply to WQT or AM plans.

TABLE C5: AGRICULTURAL PERFORMANCE STANDARDS

Ch. NR 151, Wis. Adm. Code Performance Standards
Sheet, Rill and Wind Erosion Performance Standard, s. NR 151.02, Wis. Adm. Code • Meet tolerable soil loss ("T") on all cropped fields and pastures.
Tillage Setback Performance Standard, s. NR 151.03, Wis. Adm. Code • Avoid tilling within 5 feet of the edge of the bank of surface waters. • This setback may be extended up to 20 feet to ensure bank integrity and prevent soil deposition.
Phosphorus Index Performance Standard, s. NR 151.04, Wis. Adm. Code • Use the phosphorus index (PI) standard to ensure that a nutrient management plan adequately controls phosphorus runoff over the accounting period.
Manure Storage Facilities Performance Standard, s. NR 151.05, Wis. Adm. Code • Maintain structures to prevent overflow and maintain contents at or below the specified margin of safety. • Repair or upgrade any failing or leaking structures to prevent negative impacts to public health, aquatic life and groundwater. • Close idle structures according to accepted standards. • Meet technical standards for newly constructed or significantly altered structures.

Ch. NR 151, Wis. Adm. Code Performance Standards

Process Wastewater Handling Performance Standard, s. NR 151.055, Wis. Adm. Code

- Prevent significant discharges of process wastewater (i.e. milkhouse waste, feed leachate, etc.) into waters of the state.

Clean Water Diversion Performance Standard, s. NR 151.06, Wis. Adm. Code

- Divert clean water away from feedlots, manure storage areas and barnyards located within water quality management areas. Nutrient Management, s. NR 151.07, Wis. Adm. Code
- Annually develop and follow a nutrient management plan designed to keep nutrient and sediment from entering waters of the state.

Nutrient Management, s. NR 151.07, Wis. Adm. Code

- Annually develop and follow a nutrient management plan designed to keep nutrient and sediment from entering waters of the state.

Sections NR 151.09(3)(a-d) and NR 151.095(4)(a-d), Wis. Adm. Code, identify the compliance requirements for owners and operators of cropland or livestock operations based on if the cropland or livestock operation is 'existing' or 'new' and whether cost sharing is required to be made available. Existing cropland or livestock operations must comply with the applicable ch. NR 151, Wis. Adm. Code, performance standards and prohibitions after receiving:

- Notice of the cropland or livestock performance standard or prohibition that is being violated;
- An offer to provide or coordinate the provision of technical assistance;
- A compliance period for meet the cropland or livestock performance standard or prohibition;
- A written offer of cost sharing;
- An explanation of the possible consequences if the owner or operator fails to comply with the provisions of the notice, including enforcement or loss of cost sharing, or both.

New owners or operators of cropland or livestock operations must comply with the applicable ch. NR 151, Wis. Adm. Code, performance standards and prohibitions, regardless of whether cost sharing is available.

For WQT plans, NPS implementers need to confirm/document if the landowners or operators of cropland or livestock operations in the plan have already complied with the ch. NR 151, Wis. Adm. Code, performance standards. When landowners or operators of cropland or a livestock operation: (1) voluntarily adopt practices and those practices are determined in compliance with the ch. NR 151, Wis. Adm. Code, performance standards; (2) receive a cost share agreement to comply with one or more of the ch. NR 151, Wis. Adm. Code, performance standards, or (3) receive a certificate of compliance with the farmland preservation tax credit program (https://datcp.wi.gov/Pages/Programs_Services/ConservationCompliance.aspx) prior to development of a WQT plan, credits cannot be generated from such compliance actions. For cropland or a livestock facility meeting a performance standard through the implementation of WQT or AM plan, the requirements of ss. NR 151.09(3)(b) and NR 151.095(4)(b) Wis. Adm. Code apply respectively. NPS implementers are recommended to consult with WDNR staff regarding such compliance and ensure the landowner or operator receives a ch. NR 151, Wis. Adm. Code, compliance determination in accordance with the requirements stipulated in ss. NR 151.09(5) and (6) or NR 151.095(6) and (7), Wis. Adm. Code, respectively.

For WQT, credits cannot be generated from compliance with the manure management prohibitions contained in ss. NR 151.08(2), NR 151.08(3), and NR 151.08(5), Wis. Adm. Code. Credits can be generated from management measures implemented to address s. NR 151.08(4), Wis. Adm. Code; runoff from a feedlot into the waters of the state (refer to Table C6 for manure management prohibitions). WDNR made an exception for the s. NR 151.08 (4), Wis. Adm. Code, prohibition as being eligible for WQT for the following reasons:

(1) It was determined to be the most common form of ch. NR 151, Wis. Adm. Code, noncompliance by livestock operations across the state; (2) applicable runoff models were available to estimate feedlot runoff conditions and reductions from feedlot practices and (3) WQT plans could help increase compliance with the ch. NR 151, Wis. Adm. Code, prohibition above existing efforts (e.g., Notice of Discharge/Targeted Runoff Management grants and county ordinances).

Manure Management Prohibitions in Wisconsin Administrative Code

TABLE C6: MANURE MANAGEMENT PROHIBITIONS

NR 151.08(2)	No overflow of manure storage facilities.
NR 151.08(3)	No unconfined manure piles in water quality management areas.
NR 151.08(4)	No direct runoff from feedlots or stored manure to waters of the state.
NR 151.08(5)	Limit access or otherwise manage livestock from waters of the state to maintain vegetative cover and prevent erosion.

Animal Feeding Operations (ch. NR 243, Wis. Adm. Code): Large livestock operations in Wisconsin, otherwise known as CAFOs, are considered point sources which are required to obtain a WPDES permit for discharges to waters of the state. WPDES permit conditions for CAFOs do not allow discharge of pollutants from the production area except in very limited circumstances. Therefore, for the production area of a CAFO, there will be no opportunities to implement practices for WQT or AM as the WPDES permit conditions require limits that do not allow for regular discharges of pollutants. However, the cropland associated with a CAFO is generally classified as a nonpoint source. In these cases, there may be limited opportunities for these operations to participate in WQT or AM plans or WQT programs. In order to participate, the permitted livestock operation would first need to maintain compliance with their WPDES permit conditions for land application sites – and proposed measures must go above or beyond the existing WPDES permit requirements, or can be related to something not regulated by the WPDES permit, to qualify for WQT or AM. If the WQT or AM plan proposes to work with WPDES permitted livestock operations, it is recommended the permittee or NPS implementer work with the WDNR specialist covering the livestock operation's permit to determine any overlap in permit compliance requirements.

In addition, some livestock operations are identified as posing an imminent threat to public health or fish and aquatic life by having direct discharges to waters of the state without coverage under a WPDES permit. This program is typically called the Notice of Discharge (NOD) Program. With NOD sites WDNR typically requires the owner or operator of the livestock operation to take corrective actions to prevent discharges of manure from the site into waters of the state. Livestock operations that receive a NOD or NOI (Notice of Intent to issue a Notice of Discharge) from the WDNR are not eligible to generate WQT credits. If a livestock operation is selected

to participate in an WQT or AM plan and the site is not subject to an NOI or NOD, it is eligible to generate WQT credits. For such cases, it is still recommended the permittee or NPS implementer consult with WDNR Nonpoint Source staff to help address all livestock operation runoff issues and verify compliance with applicable ch. NR 151, Wis. Adm. Code, performance standards.

Other State Programs: Other state regulations and programs may also add a level of complexity to implementing agricultural practices related to a WQT or AM plan. DATCP has a series of administrative codes and programs which may overlap with agricultural practices used for WPDES permit compliance such as: Farmland Preservation Program, Agriculture Enterprise Areas, livestock siting regulations, soil and water resource management programs (i.e. land and water resource management plans, offers of cost-share funding from alternative sources of funding, manure storage ordinances, etc.). These programs are typically implemented by county LCDs, in consultation with DATCP. It is important for NPS implementers to work with DATCP and local county LCDs to ensure adherence to DATCP program guidelines and policies related to using DATCP funding to meet WPDES permit requirements.

Federal Regulations & Programs: Federal programs may also have limitations or considerations to be aware of when implementing a watershed-based point source compliance program. A producer may be involved in federal programs that may have eligibility requirements that could limit their participation in an adaptive management or water quality trading program. In addition, many producers participating in federal programs are covered under the Privacy Act (1974) and need to provide special releases to have their involvement with federal programs reported to other entities.

1.5 Marketing AM and WQT

Marketing AM and WQT is very similar to marketing existing conservation programs. The BMPs, pollutant load reduction expectations, and longevity of compliance are similar under AM and WQT as they are under existing, established cost share programs. The primary differences are the source of funding for the proposed practices and agreement framework. It should be made clear to producers or landowners that compliance with all terms of the WQT agreement will be required to maintain credit availability and WDPES permit compliance for the credit user.

Obtaining buy-in from stakeholders including landowners, producers, agronomists, consultants, co-op staff, local agricultural coalitions, environmental groups, tax payers, elected officials and staff can be daunting. However, targeting the appropriate audience is key to successfully marketing conservation programs. NPS implementers should understand the audiences necessary to successfully implement NPS pollution control activities. The tools to reach these audiences may vary. Examples of these tools are identified in Figure C3. Social marketing and civic engagement are other methods to explore when working toward changing social behaviors. These methods would translate well to other NPS implementation efforts such as WQT and AM. In addition, WDNR adaptive management and trading coordinators may be useful resources to aid in the development of materials and outreach to these targeted audiences.

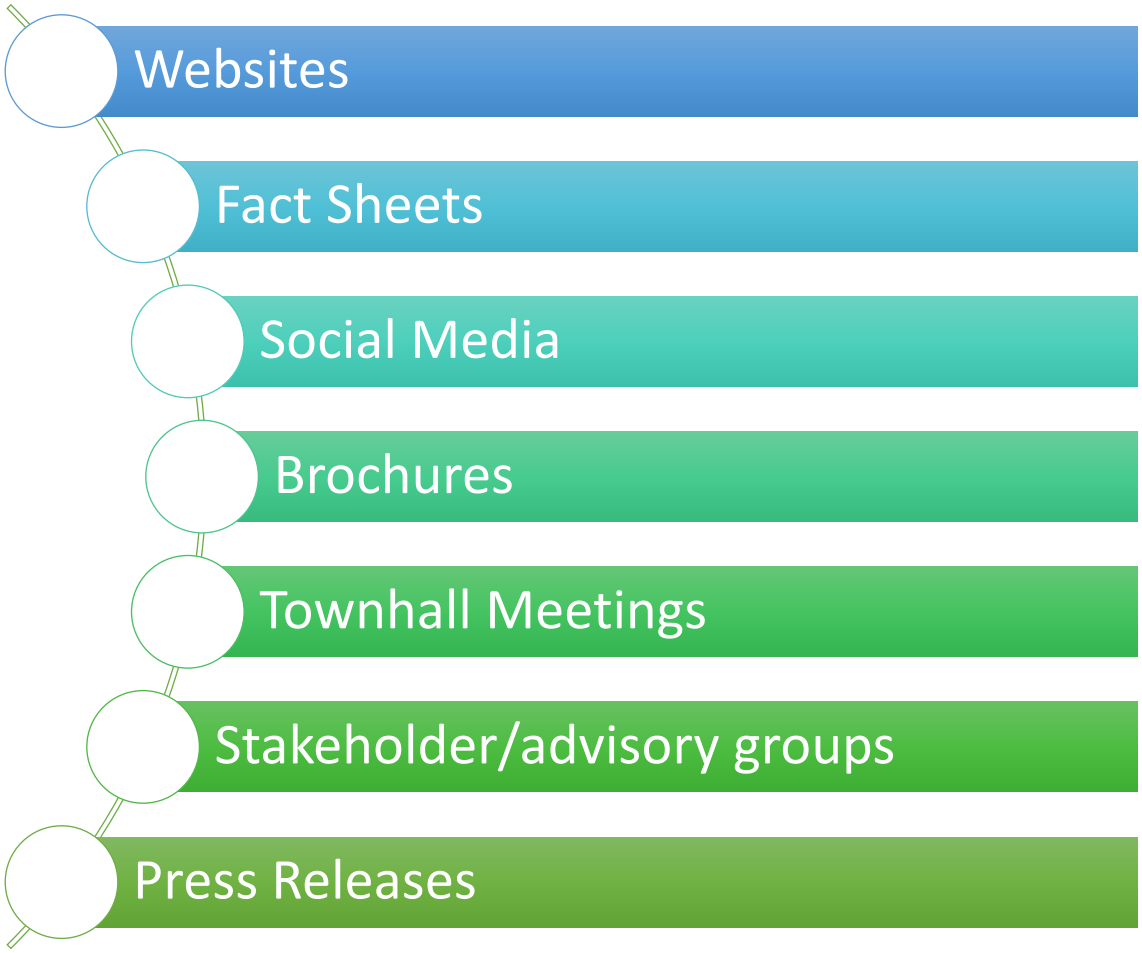

FIGURE C3: EXAMPLE OUTREACH TOOLS

1.6 Implementing Practices

Currently, county LCDs, nonprofits, and some private consultants play a major role in identifying, contracting, designing, and implementing practices as part of implementing existing local and state soil and water conservation programs and cost-share programs. Figure C4 describes the general steps involved in implementing practices for this purpose. Since inventory work was completed during plan development, critical source areas should have already been identified in the WQT or AM plan for the targeted watershed.

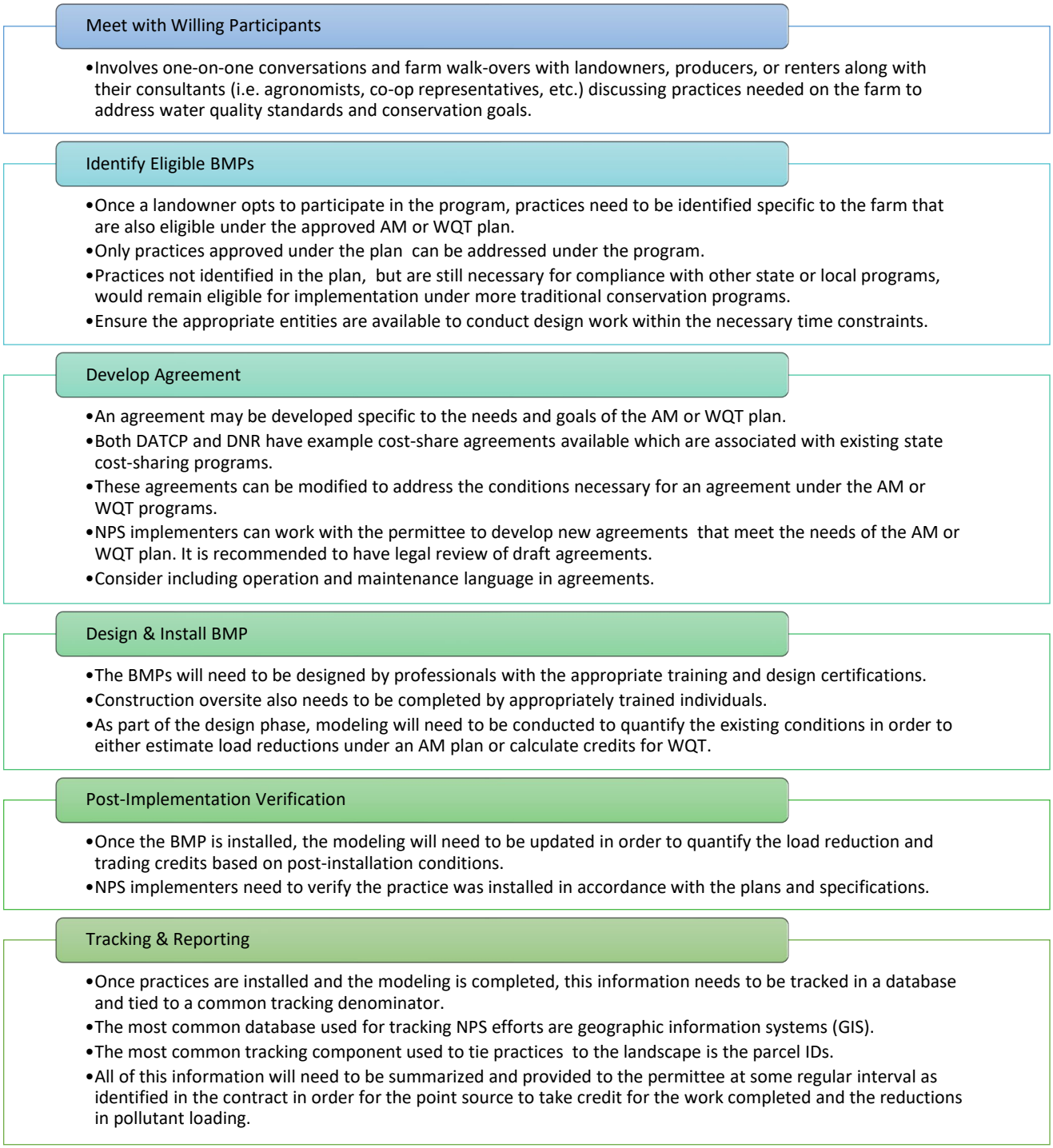

FIGURE C4: STEPS FOR IMPLEMENTING BMPS

There are no WQT or AM specific requirements that prohibit a point source from using a variety of funding sources (point source, federal, nonprofit, etc.) to implement and install BMPs in AM or WQT areas. However, any funding source may stipulate project eligibility on its own terms. NPS implementers should confirm with the funding source to ensure the funds they administer can be used for WPDES permit/point source compliance activities. WQT requires that a point source reach an agreement with the applicable landowners where the practices are implemented either before or at the time of installation. If there is no agreement with the landowner, it is unlikely that the point source will be able to claim those practices for credit generation. If outside funds were brought into a watershed to pay for practices and those practices were not caused by a WQT agreement with the point source (and documented via a WQT Management Practice Registration, WDNR Form #3400-207), the pollutant reduction is not eligible to generate credits pursuant to s. 283.84(1)(b) Wis. Stats. Similarly, if the practices proposed within a WQT plan are part of an existing cost share contract issued to a landowner to meet the ch. NR 151, Wis. Adm. Code, performance standards, or are used by the landowner to meet, or maintain, eligibility for tax credits under the DATCP farmland preservation tax credit program (https://datcp.wi.gov/Pages/Programs_Services/ConservationCompliance.aspx), the pollutant reduction is not eligible to generate credits.

In AM project areas, multiple funding sources may be contributing to the implementation of BMPs, resulting in water quality improvement in the applicable stream, river, or lake. Regardless of the funding sources or who is bringing the funding into the AM project area, the point source will benefit from any positive response in water quality, as it will help them comply with their WPDES permit requirements for AM. As mentioned earlier, federal funding under s. 319 of the Clean Water Act has restrictions that would make a project or practice ineligible for s. 319 funding or state match of s. 319 funding. To address each of these restrictions, it is critical that the AM plan under s. NR 217.18, Wis. Adm. Code, clearly identify what the point source is responsible for and which practices they are interested in pursuing. Practices identified in the AM plan will not be eligible for s. 319 funding or state funding used as match for s. 319 funding. Practices not in the AM plan may be eligible for s. 319 funding and state NPS funding. All such practices if recognized as a BMP in ch. NR 154, Wis. Adm. Code, are consistent with the goals of the State's Nonpoint Source Program Management Plan.

Water Quality Monitoring

For AM, in-stream monitoring is necessary to show improvements in water quality for compliance with the permit. Permittees may contract for services to implement water quality monitoring plans. As part of the approved AM plan, a monitoring plan should have been included, discussing which parameters will be measured, sampling locations, and timing of sample collection. The monitoring may be conducted by NPS implementers, volunteers, or a third party contractor, provided that the party has the skills and resources to carry out the monitoring plan and applicable quality assurance protocols. Again, this monitoring data will need to be collected, analyzed, tracked, and reported in order for the WDNR to determine the permittee's compliance under the permit conditions.

Total Maximum Daily Loads (TMDLs)

When implementing a WQT or AM plan in a TMDL area, the goals and conditions of the TMDL, which included associated load reductions for nonpoint sources, should be considered. In some of the state's TMDLs, the load allocations for nonpoint sources were set assuming that, at a minimum, all agricultural nonpoint sources were

meeting the statewide agricultural performance standards and prohibitions in ch. NR 151, Wis. Adm. Code. In some TMDLs, complying with statewide standards may be enough to meet the pollutant reduction goals of the TMDL. However, other TMDLs may require load reductions that go beyond what is needed to meet the statewide ch. NR 151, Wis. Adm. Code, standards. In these cases, creative solutions and funding options may be explored to go above and beyond the statewide performance standards.

1.7 Post-Implementation Activities

Once a WQT or AM plan has been developed and implementation has occurred, projects move into a post-implementation phase. During this phase of the project, NPS implementers may be asked to assist the permittee in verifying that practices listed in the WQT or AM plan are being operated and/or maintained as designed and help to document practice implementation for reporting purposes.

Verification

Regardless of the program, the permittee may ask a NPS implementer to conduct long-term verification of practices installed as part of compliance with point source WPDES permit conditions. Verification may involve regular compliance checks to ensure the installed practice is being operated, maintained, and functioning as designed, in accordance with the operation/maintenance program. Depending on the practice, there is the potential the permittee may provide funding for long-term maintenance costs. In these situations, the NPS implementer may need to manage funding and work associated with BMP maintenance or on-going incentive payments. In addition, modeling of pollutant loads may need to be recalculated, depending on the compliance status of the site and BMP life expectancy, and reported to the WDNR.

The verification process is similar to existing programs NPS implementers are already familiar with, such as local ordinances, the ch. NR 151, Wis. Adm. Code, agricultural performance standards and manure prohibitions, or Working Lands Initiative. Verification may be completed through onsite inspections, windshield or drive-by inspections, meetings with landowners, or file reviews. For WQT, inspections must be completed consistent with inspection protocol found in the WQT plan. These verification steps should be documented in a tracking system including compliance determination documentation, compliance schedule information for implementation issues, photographic or other documentation where appropriate, payments, satisfaction of compliance determinations, and any other information necessary for tracking and reporting purposes related to a WQT or AM plan. Point Source permittees and NPS implementers should discuss and document what steps need to be taken regarding landowner compliance with contracts issued under a WQT or AM plan and include those verification procedures in such plans. The discussion should answer what frequency verification procedures will be completed (e.g. on an annual basis or seasonally, over the life of the practice or over the five-year permit term). Permittees and NPS implementers are recommended to consult annually with WDNR staff re: practice verification methods and procedures for WQT and AM plans. An example of a BMP verification process is included in Figure C5.

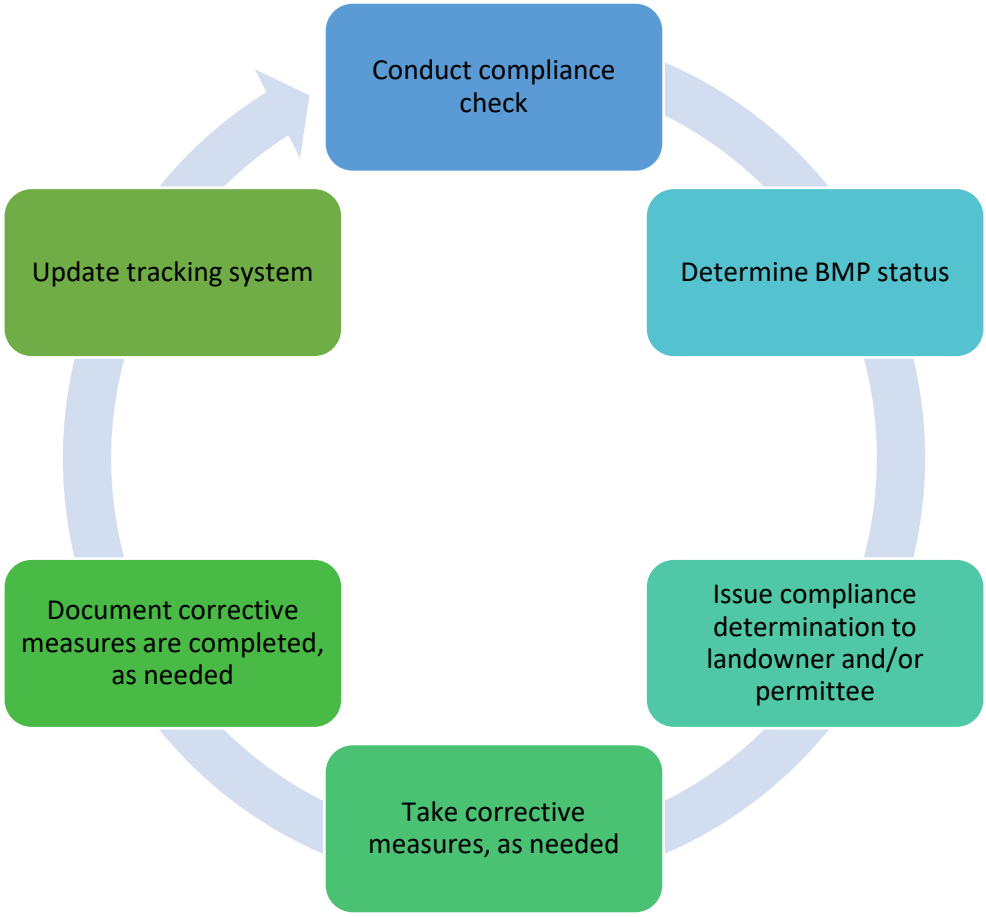

FIGURE C5: EXAMPLE BMP VERIFICATION PROCESS

Tracking

In order to adequately track and report on implementation of WQT or AM plans, NPS implementers should ensure staff have the appropriate tools, resources, training, and knowledge to accurately track and report implementation progress. Existing tracking systems utilized by the NPS implementer may work well for WQT or AM plans. Spatially-based databases, such as GIS, will likely be the most popular tool used to track implementation. Parcel ID numbers or codes are recommended as the common unit for tracking practices, regardless of implementation program (i.e. adaptive management, water quality trading, ch. NR 151, Wis. Adm. Code, implementation, FPP, county ordinances, TMDL implementation, etc.). Apart from the tracking system used, BMPs may need to be tracked on a regular basis from installation through a BMP's lifespan in order to report progress for compliance under a WPDES permit. Figure C6 displays some example categories that may be included in a tracking system.

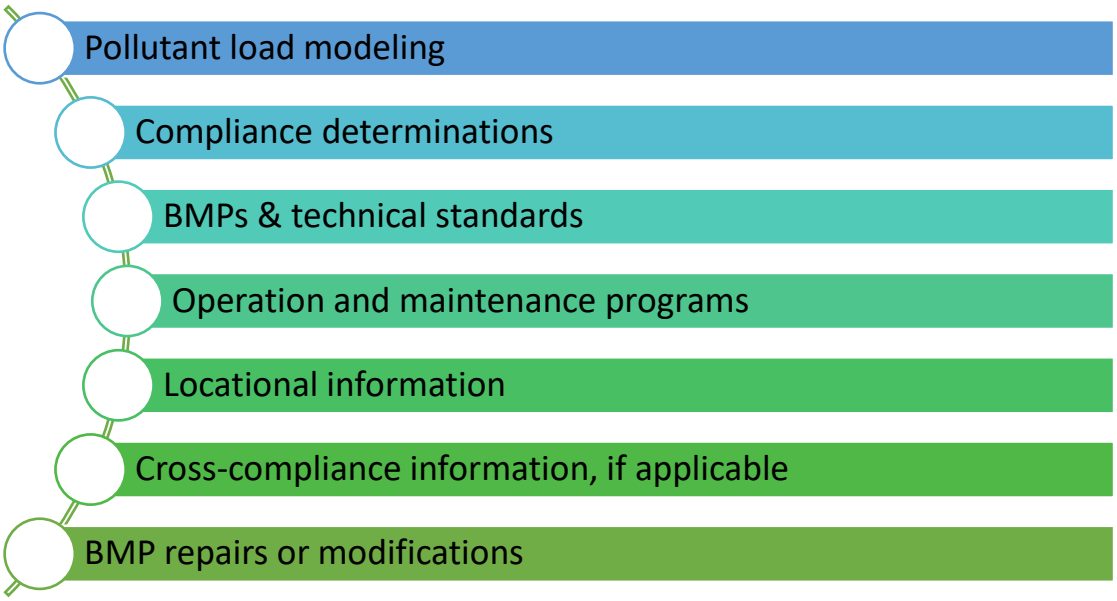

FIGURE C6: ELEMENTS FOR TRACKING SYSTEMS

Reporting

Under AM or WQT programs, point sources are required to submit regular status and verification reports to the WDNR as part of the permit compliance schedule, ensuring compliance with WPDES permit conditions. The main report used is an annual report which will include a variety of information related to the implementation of the approved plan. The compilation work associated with developing this report may be contracted by the point source to a NPS implementer. However, the submittal responsibility and compliance liability of the report lies with the permit holder. Figure C7 briefly outlines the major elements that should be included in an annual report for AM and WQT programs. See WPDES permit requirements and specific WQT/AM plans for full details.

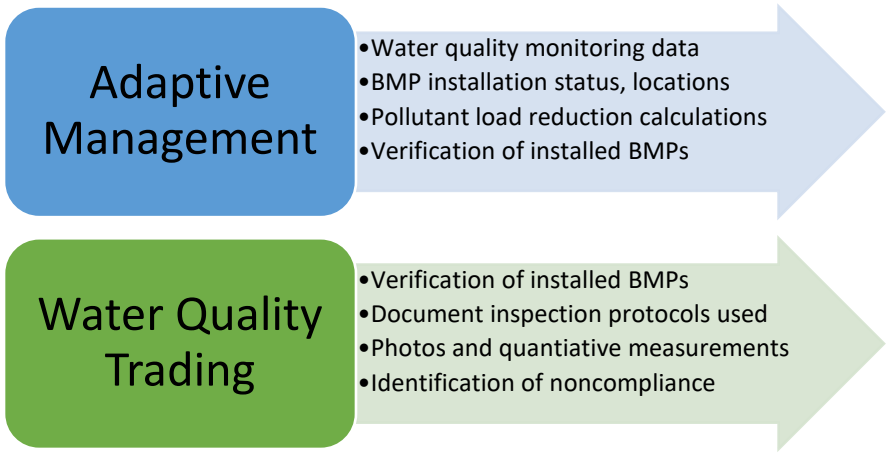

FIGURE C7: ANNUAL REPORTING FOR AM AND WQT

Summary

WQT and AM programs are compliance options that WPDES permitted dischargers can select in Wisconsin that provide opportunities to work in an identified watershed to reduce pollutant loads and improve water quality. These programs present an opportunity to bring point source and nonpoint source entities together to address local water quality issues holistically. NPS implementers need to be aware of their skills, knowledge, and abilities and how they can be beneficial for implementation of successful WQT and AM plans. Consideration of all the elements that go into implementing a successful AM or WQT plan is key to making these programs work for Wisconsin and improve water quality.

References & Resources

The following is a list of references and resources available to NPS implementers.

Watershed Adaptive Management Request, Form 3200-139
https://dnr.wi.gov/files/PDF/forms/3200/3200-139.pdf

Notice of Intent to Conduct Water Quality Trading, Form 3400-206
https://dnr.wi.gov/files/pdf/forms/3400/3400-206.pdf

Water Quality Trading Checklist, Form 3400-208
https://dnr.wi.gov/files/pdf/forms/3400/3400-208.pdf

Water Quality Trading Management Practice Registration, Form 3400-207
https://dnr.wi.gov/files/pdf/forms/3400/3400-207.pdf

Pollutant Load Ratio Estimation Tool (PRESTO)
http://dnr.wi.gov/topic/surfacewater/PRESTO.html

Water Quality Trading Tools Table (2014)
https://dnr.wisconsin.gov/topic/wastewater/phosphorus/tools.html

Erosion Vulnerability Assessment for Agricultural Lands (EVAAL)
http://dnr.wi.gov/topic/nonpoint/evaal.html

Wisconsin's Runoff Rules: What farmers need to know (2013)
https://widnr.widen.net/s/m9zf6zlw7l/wt0756

Cost-Share Agreement, Form 3400-069
http://dnr.wi.gov/files/PDF/forms/3400/3400-069.pdf

SnapPlus - Wisconsin's Nutrient Management Planning Software
https://snapplus.wisc.edu/