Wisconsin's Electronic Reporting Rule Phase 2 Implementation Plan

Section 1:
Overview/Executive Summary

The Wisconsin DNR has delegated authority to administer the NPDES program. Wisconsin is also delegated authority for the pretreatment program and biosolids program. The WPDES permit program has a universe of 977 industrial and municipal individual permits and approximately 5000 stormwater and non-stormwater general permittees.

The program utilizes a customizable Oracle database system called SWAMP (System for Wastewater Applications, Monitoring and Permitting). SWAMP is a computer system designed to assist with management of the WPDES Permit Program. This system has the capability to:
- generate WPDES permit applications,
- store facility information,
- issue WPDES permits,
- determine WET requirements,
- generate monitoring forms,
- store permittee monitoring data and analyze compliance,
- generate/store permit-related documents,
- track compliance and enforcement events, such as SEVs
- record and document inspections and
- calculate annual pollutant fees

The Department also utilizes a web-based Sharepoint application for select general permit NOIs and for CAFO permitting. The facility permit data is then transferred to SWAMP.

The Department requires individual permittees to create a WAMS ID on its secure eBusiness portal and this allows them to securely log-in to access forms and reporting systems.
The WAMS (Web Access Management System) ID creation is a multistep self-registration process where users submit contact and account information and are sent a confirmation e-mail containing a link to account activation page. After accessing the activations page, authorized representatives print and return a signature page. Once a WAMS ID is established, permittees can request access to permit related forms for applications or reporting on the SWAMP system.

The Department requires all individual municipal and industrial permittees to submit applications electronically and report DMR data electronically to SWAMP. Currently, the Department transmits all major facility DMR data, inspection data and SEV data electronically through the exchange network node to ICIS.

Key tasks for updating/building data system

WDNR infrastructure must be upgraded to meet national data exchange standards specified in the Final E-Reporting Rule. While Wisconsin has already made significant investments to develop an E-Reporting system to streamline and improve data accessibility for NPDES permitting prior to the electronic reporting rule, we need to expand our existing data types and data flows to accommodate requirements specified in the E-Reporting Rule, and modify the existing Exchange Network ICIS-NPDES plugins and capabilities. These changes and enhancements to Wisconsin's NPDES database system will be required to electronically flow information to ICIS-NPDES for Phase 2 requirements.

Specifically, the E-Reporting Rule requires expansion and development of Wisconsin's NPDES database to allow for electronic reporting capability for the Phase 2 requirements. The Department will utilize grant funding to develop and implement electronic reporting tools and processes for the Phase 2 annual reporting for the following program reports:

- General permit NOI and Discharge Monitoring Reporting
- Sewage Sludge/Biosolids Annual Program Reports [40 CFR 503] (for the 8 states that implement the Federal Biosolids Program)
- Concentrated Animal Feeding Operation (CAFO) Annual Program Reports [40 CFR 122.42(e)(4)]
- Municipal Separate Storm Sewer System (MS4) Program Reports [40 CFR 122.34(g)(3) and 122.42(c)]
- Pretreatment Program Reports [40 CFR 403.12(i)]
- Significant Industrial User Compliance Reports in Municipalities Without Approved Pretreatment Programs [40 CFR 403.12(e) and (h)]
- Sewer Overflow/Bypass Event Reports [40 CFR 122.41(l)(4), (l)(6) and (7), (m)(3)]
- CWA Section 316(b) Annual Reports [40 CFR 125]

Additional data types and data flows will need to be added to Wisconsin's existing System for Wastewater Applications, Monitoring, and Permits (SWAMP) to accommodate these program reports and general permittee information. Also, additional permit processes will be added to the Sharepoint ePermitting system for general permits and the workflow includes a requirement to ensure that data, reports, and notices of intent submitted by NPDES permit holders through SharePoint and/or SWAMP Web Forms will be automatically loaded in SWAMP. This will provide the data set to electronically flow required data to ICIS-NPDES.

Estimated timeline

The program has developed an implementation plan to achieve the goals of Phase 2 of the e-reporting rule that provides for the development of program reports, data submission processes and data flows to ICIS.

1.1 Evaluate and prioritize needed data elements for NPDES permit holder to electronically submit data types specified in the E-Reporting Rule to DNR through external facing interfaces (current interfaces are using SharePoint and/or Web Forms). Design data intake, review, and load solutions in SharePoint and other existing user interface systems. Expand data mapping functionality from existing and future Sharepoint application to transfer permittee data to WPDES database (SWAMP).
1.2 Perform quality assessment of data. Test flow configurations changes. Respond to data gaps and program needs identified through testing and make final modifications.
1.3 Document the data flow and implement submittals for use by NPDES permit holders.
    Piloted data flow is completed, with DNR now accepting data electronically.

The target date for complete compliance with the e-reporting rule is June 2020.

Contact

The primary contact person for the project is Adrian Stocks, Wastewater Permits Section Chief. He can be contacted via email [Adrian.Stocks@wisconsin.gov] or phone [608-266-2666].

These projects will be carried out by an integrated team of WDNR environmental program and information technology staff, consistent with the state's technology development framework. The individuals involved have extensive experience in the development, evaluation, and implementation of the state's Exchange Network node and current environmental data exchanges.

Additional key staff involved includes:

Keri Behm, Water Quality IS specialist- ICIS NPDES data coordination, keri.behm@wisconsin.gov

David Argall, Water Quality IS specialist-SWAMP database manager, david.argall@wisconsin.gov

Andy Kempen, IT contractor lead-SWAMP programmer , andy.kempen@wisconsin.gov

Michelle Ollier, SWAMP-ICIS XML programmer, michelle.ollier@wisconsin.gov

Tom Bauman, CAFO program, thomas.bauman@wisconsin.gov

Marjorie Damgaard, Information Systems Supervisor, marjorie.damgaard@wisconsin.gov

Section 2: Wisconsin WPDES Universe (July 22, 2016)

Majors	…………………………………...	**125**
	Municipal………………………...	86
	Industrial………………………...	39
Minors		**852**
	Municipal………………………...	556
	Industrial………………………...	296
MS4	…………………………………...	**27**
CAFO	…………………………………...	**256**
General Permits…………………………...		**5310**
	Carriage and Interstitial Water from Dredging Operations………	54
	Concrete Products Operations….	153
	Contaminated Groundwater from Remedial Action Operations……	98
	Domestic Wastewater to a Subsurface Soil Adsorption System…………………………..	9
	Forest Canopy Pest Control……..	2
	Hydrostatic Test Water and Water Supply System Water……………	439
	Land Application of Byproduct Solids………………………………	12
	Land Application of Industrial Sludge…………………………...	17
	Land Application of Liquid Industrial Waste…………………	97
	Large Dairy CAFO……………...	27
	Mosquitoes or Other Flying Insects…………………………..	19
	Noncontact Cooling Water or Condensate and Boiler Blowdown………………………	514
	Nondomestic Wastewater to a Subsurface Discharge to Soil Absorption………………………	34
	Nonmetallic Mining Operations...	2416
	Outside Washing Of Vehicles…...	111

Petroleum Contaminated Water…	71
Pit/Trench Dewatering…………..	189
Potable Water Treatment Conditioning……………………	118
Satellite Sewage Collection Systems………………………….	275
Short Duration Discharge……….	3
Swimming Pool Facilities……….	183

Section 3: Current and Planned NPDES Data Systems and E-Reporting Tools

The Department requires all individual municipal and industrial permittees to submit applications for wastewater discharge permits electronically and report DMR data electronically to SWAMP. This requirement has been in place since 2010.   Currently, the Department transmits all major facility DMR data, inspection data and SEV data electronically through the exchange network node to ICIS. All additional Phase 1 data elements are being tested and will be ready for transmittal to ICIS beginning in 2017.

For general permits, applicants download a paper copy of the permit application that is completed and sent back and the WDNR enters facility data and coverage letter into SWAMP (the wastewater database). Each facility is assigned a unique FID (facility identification) number and any reporting or inspection documentation is stored in SWAMP. This is the same process for annual reports. The exceptions to the paper applications is the pest control and pit/trench dewatering general permits, which are available as online permit applications in Sharepoint. Facility and permit information for these permits is transferred into SWAMP.

Prior to the E-Reporting Rule taking effect, WDNR invested resources to streamline the general permitting process for the most commonly applied for general permits (storm water, aquatic plant management and wastewater pit-trench dewatering). Currently, WPDES permit holders are able to submit notices of intent through the ePermitting system for some wastewater permits and apply for CAFO permits. DMR and inspection reports for municipal and industrial WPDES permitted wastewater facilities can completed through SWAMP WebForms. The ePermitting system, which uses SharePoint, receives information from permittees through electronic forms and downloads specific data into databases, such as SWAMP. To comply with the E-Reporting Rule, these capabilities need to be expanded to incorporate additional annual reporting requirements in compliance with the e-reporting rule. The Department will utilize grant funding to develop and implement electronic reporting tools and processes for some of the following program reports:

Our planned NPDES data system and e-reporting tools upgrade will require general permit applicants to acquire a unique WAMS (Web Access Management System) ID. Once a WAMS ID has been assigned, permit applicants then log on to SharePoint using their WAMS ID where they choose and apply to their permit. Data from online permit form is transferred to SWAMP. SWAMP data for all NOIs, DMRs and program reports will be transferred to ICIS through the EIEN node.

Section 4: Key Tasks for Updating Agency Data Systems and Data Transmission Systems for Phase 2 Data Groups

The key tasks for updating the WPDES data system to include all individual reporting elements, program reports, and notices of intent from NPDES permit holders through SharePoint and/or SWAMP Web Forms are described below in the table. WDNR's plan is to design, develop, and test methods to receive electronic discharge monitoring report (eDMR) and annual reports from NPDES permit holders by utilizing current IT contractors to make necessary enhancements and upgrades to our internal system. The reporting tools and annual report template development will include wastewater general permits DMRs, MS4 annual reports, CAFO annual reports and other required program reports to comply with E-

Reporting Rule requirements. WDNR's order of specific report development will be based on analysis of needed data elements and complexity as the project progresses. The program will begin with simpler program report development steps and use this work as a building block for further work. However, the prioritized program reports will be developed concurrently with DMR reporting and electronic NOIs for general permits.

Goal 1: Develop, test and implement additional data types and data flows to the Integrated Compliance Information System – National Pollutant Discharge Elimination System (ICIS-NPDES) and enhance data submittal process to EPA in compliance with EPA's E-reporting rule.	1.1 Prioritized task list is developed based on identified data needs	January 2018
	1.2 Define and analyze DNR data submittal process	April 2018
	1.3 Design solutions for prioritized tasks	September 2018
	1.4 Expanded DNR database and ICIS-NPDES submittal process	September 2019
	1.5 Data flow and submittal process is tested and assessed	January 2020
	1.6 Data flow is completed with new data entries being sent to ICIS-NPDES	June 2020
Goal 2: Design, develop and test a method to receive discharge monitoring reports (eDMRs) and annual reports from NPDES general permit holders to enhance and streamline the data review and validation process and comply with EPA's E-reporting rule-Phase 2	2.1 Prioritized list of data submittals/forms from NPDES permit holders to automate reporting and comply with Phase 2 E-reporting rule.	January 2018
	2.2 Define and analyze data submittal process for NPDES permit holders	April 2018
	2.3 Design solutions for prior tasks	September 2018
	2.4 Expand NPDES user interfaces to comply with E-Reporting Rule and update DNR database to accommodate changes	September 2019
	2.5 Applications (SharePoint and SWAMP) are tested and assessed	April 2020
	2.6 Piloted data flow is completed, with DNR now accepting and transferring data electronically	June 2020

Section 5: CROMERR Compliance Status for Agency Electronic Reporting Systems

Wisconsin's CROMERR application is currently under review at EPA. The proposed CROMERR compliant signature process will be applicable to all WPDES permit holders. This process will

incorporate some elements of the current WAMS ID user name creation and password protocol with additional steps to comply with CROMERR requirements. The WPDES program proposes to update EPA Region 5 monthly on the CROMERR application and process status.

Section 6: State Statutes, State Regulation/Administrative Rule, and NPDES Permit Update Estimated Completion Dates

Updating state statutes, state regulations, administrative rule, and/or NPDES permits is not necessary at this time pursuant to ss. NR 200.06 Wis. Adm. Code state that the application for reissuance of a permit shall be submitted electronically using the department's web-based application system and shall be signed in accordance with s. NR 200.07.

Section 7: Temporary and Permanent Waiver Approval Process

Wisconsin's program is expecting a high percentage of compliance with electronic reporting requirements. In the event of a situation where the permittee cannot comply with the reporting requirements, the program will provide a waiver process. The waiver process will be composed of a printable application for a waiver that includes a requirement for justifying the need for the waiver. All permittees requesting a waiver will still be required to submit all data elements listed in Appendix A. The Department currently has staff trained for manual data entry into ICIS and staff will populate ICIS database with the data of any permittees granted waivers.

Section 8: Outreach and Training

All WPDES individual permit holders are already submitting applications and reporting monitoring data electronically. The wastewater program is anticipating some hardship in converting all GP holders to electronic NOIs and electronic reporting, however.

The program has already undertaken an effort to update contact information for all permittees by requesting all GP holders respond with a current e-mail address as this is critical for further outreach and for obtaining a WAMS ID. As part of the contact update survey, the Department explained that an effort was beginning to convert our application and reporting process to an electronic process.   There are plans to add staff to act as technical support for permittees when obtaining a WAMS ID and accessing electronic forms for the first time as the program makes the conversion from paper to electronic reporting for general permittees.

Section 9: Alternative Options

The WDNR's alternative option for converting to e-reporting is to utilize EPA's offered services and systems.

Section 10: Obstacles to Rule Implementation

There are a number of obstacles that the program will face as it implements the necessary processes to comply with the e-reporting rule. The most significant obstacle will be financial resources for IT contracting costs to update our current system. We have applied for an exchange network grant to possibly provide some relief. Also, we anticipate establishing unique FIDs for transient general permits will be problematic, as will ensuring all GP holders can successfully sign up for a WAMS ID and meet the CROMERR signature requirements .

Section 11: Implementation Plan Reassessment
The plan will be reassessed every 3 months as part of the e-reporting readiness team scheduled meetings.