Wisconsin
Department of Natural Resources

Drinking Water and Groundwater Study Group Meeting

Madison

April 4, 2019

WISCONSIN
DEPT. OF NATURAL RESOURCES

Welcome

Darsi Foss – Environmental Management Division Administrator

Overview of the lab's efforts to distribute over 1,000 test kits to southwest WI and Dane county after the 2018 summer floods

David Webb and **Jocelyn Hemming**, Wisconsin State Lab of Hygiene and **Doug Voegeli**, Public Health Madison Dane County

PFAS Update

Internal Updates

Steve Elmore – Program Director
Kyle Burton - Field Operations Director

Internal Actions to Date

- ***In 2018, requested NR 140 recommendation from DHS on PFOA & PFOS***
  - *Expect recommendation by Mid 2019*
- ***DNR and DHS informal coordination group.***
  - Established roles, communication, and response protocols
- ***Internal working group in EM division.***
  - Program Directors communicate PFAS issues and actions
- ***Partnering with Municipal Water Supplies who voluntarily sample for PFAS***
  - Madison, Marinette, others beginning exploring plans

Internal Actions to Date

- ***External advisory group on PFAS cleanup issues.***
  - RR led group to discuss issues and share updates
- ***Visited Minnesota Pollution Control Agency on their initiative.***
  - Acquired valuable information regarding MN approach
- ***New PFAS – DNR web page in January 2019***
  - ***https://dnr.wi.gov/topic/Contaminants/PFAS.html***
- ***Requested PFAS Funding & Staff in Budget.***
  - RR Program will be filling coordinator position soon

Internal Actions to Date

- ***Surface Water and fish sampling near potential PFAS sources***
  - Fish were collected in 2017 and 2018 from Green Bay and the Menominee River up to the first dam. The remaining sections of the Menominee River (upstream of the first dam) are on schedule to be sampled in 2019.
- ***RR program is requesting sampling for PFAS on case-by-case basis at sites associated with PFAS***
  - Coordinating with DG regarding potential drinking water well impacts

Looking Forward

- ***WI DNR continues to put significant time and resources into PFAS work and response, and will continue to work with partner agencies, stakeholders, and the legislature to address PFAS issues across the EM Division and department as a whole.***

PFAS Update

Lab’s role and what testing is offered

Paul Junio– Northern Lake Service Laboratory
David Webb- Wisconsin State Lab of Hygiene

Break

Agency Update

Steve Elmore– Program Director

Drinking Water & Groundwater Program

Darsi Foss
Environmental Management Division Administrator

Programs

- Air Management
- Drinking & Groundwater
- Office of Great Waters
- Remediation & Redev.
- Water Quality
- Waste & Material Mgmt.

Deputy Division Administrator
Jim Zellmer

Bureau of Drinking Water & Groundwater
Steve Elmore, Director

Field Operations Director
Kyle Burton

- South Central — **Eileen Pierce**
- Southeast — **Jesse Jensen**
- West Central — **Troy Stapelmann**
- Northeast — **JaNelle Merry**
- Northern — **Mark Pauli**

- Public Water Supply — **Adam DeWeese**
- Public Water Engineering — **Cathy Wunderlich**
- Private Water Supply — **Liesa Lehmann**
  - Field Supervisor — **Marty Nessman**
- Water Use — **Adam Freihoefer**
- Groundwater — **Bruce Rheineck**

America's Water Infrastructure Act of 2018

Cathy Wunderlich - Public Water Engineering Section Chief

America's Water Infrastructure Act

Bioterrorism Act of 2002	**VS.**	**AWIA of 2018**
Vulnerability Assessment (VA) (& Emergency Response Plan)	→	Risk & Resilience Assessment (& Emergency Response Plan)*
Terrorism or Intentional Act	→	All-Hazards (malevolent act or natural hazard)*
Submit VA to EPA	→	Submit certification letter of each requirement to EPA*
One time requirement	→	Perform requirements every 5 years*

AWIA of 2018 Requirements

Risks and Resilience Assessment:

- Risks of **malevolent acts** or **natural hazards**;
- Resilience of the water system **assets**: *physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems*;
- The **monitoring** practices of the system;
- The **financial** infrastructure of the system;
- The use, storage, or handling of various **chemicals** by the system;
- The operation and maintenance (**O&M**) of the system;
- May include an evaluation of capital and operational **needs** for risk and resilience management.

AWIA of 2018 Requirements

Emergency Response Plan, considering:

- **Strategies and resources** to improve the resilience of the system (incl. both *physical* and *cybersecurity)*;
- **Plans and procedures** that can be implemented, and identification of equipment that can be utilized, in the event of a malevolent act or natural hazard;
- **Actions, procedures, and equipment** which can mitigate or significantly lessen the impact of a malevolent act or natural hazard *(incl. development of alternative source water options, relocation of water intakes, construction of flood protection barriers)*; and
- **Strategies to aid in the detection** of malevolent acts or natural hazards that threaten the security or resilience of the system.

AWIA of 2018 Requirements

Compliance deadlines:

Utility Size (Population Served, incl. consecutive)	Number of Community Water Systems in WI	Risk & Resilience Assessment	Emergency Response Plan
>100K	7	March 31, **2020 ***	Sept. 30, **2020 ***
50K - 100K	9	Dec. 31, **2020 ***	June 30, **2021 ***
3,300 - 50K	168	June 30, **2021 ***	Dec. 30, **2021 ***
<3,300	870	N/A	N/A

* Utilities must review, update and recertify EVERY 5 YEARS

AWIA of 2018 Requirements

✓ Other provisions of AWIA:

- **Source water** items that are effective immediately:
  - ✓State must promptly notify a community water system of a release impacting source waters (spill);
  - ✓Communities have access to *Emergency Planning and Community Right-to-Know Act* (EPCRA)* Tier II data for any facility within a delineated source water area
- **Consumer Confidence Reports** have to be reported twice per year (unsure of implementation date)
- All water systems >3,300 must participate in **UCMR** (unregulated contaminant monitoring rule) starting in 2022

After the Fact Reviews and Notices of Noncompliance for Community Water Systems and NR 812 Wells

Cathy Wunderlich - Public Water Engineering Section Chief

Reviewable Projects

NR 108.02 Definitions.

(13) "Reviewable project" means any construction or installation project for which department approval is required, pursuant to s. 281.41, Stats. The following projects are reviewable within the meaning of this chapter:

(a) Any new community water system or any water system intended to serve 7 or more homes, 10 or more apartments, 10 or more mobile homes or 10 or more condominium units.

(b) Any improvements, extensions or alterations which may affect the quality or quantity of water delivered by an existing community water system or delivered by a water system serving 7 or more homes, 10 or more apartments, 10 or more mobile homes or 10 or more condominiums units except distribution systems not in streets or easements, or water systems where all of the living units are owned by a single owner and the owner provides information indicating that less than 25 year–round residents will be served.

NR 108.03 Construction of reviewable projects.

(1) No person may commence, or cause to be commenced, construction of any reviewable project until final plans and specifications for such project have been reviewed and approved by the department or until at least 90 days has elapsed since the submission of final plans and specifications to the department, and the department has not rejected the final plans and specifications. The 90–day time period may be extended as provided in s. 281.41, Stats.

Reviewable Project Approval Req's

Subchapter I — Submission of Plans

NR 811.08 General requirements. **(1)** PLANS AND SPECIFICATIONS REQUIRED. The owner of a community water system shall submit plans and specifications for all reviewable projects in accordance with ch. NR 108. Plans and specifications shall comply with or incorporate the general design and operating requirements in this chapter and chs. NR 108 and 810. Worksheets shall be included with all submittals for reviewable projects for which applicable worksheets are provided by the department.

(2) APPROVALS REQUIRED. Written department approval shall be obtained prior to starting construction for all reviewable projects as defined by s. NR 108.03 (1). The department may deny approval or grant a limited approval in cases where the requirements of this chapter are not met.

NR 812.09 Department approvals.

(4) APPROVALS REQUIRED. Prior department approval is required for the activities described in this subsection. When deemed necessary and appropriate for the protection of public safety, safe drinking water and the groundwater resource, the department may specify more stringent well and heat exchange drillhole locations, well and heat exchange drillhole construction or pump installation specifications for existing and proposed high capacity, school or wastewater treatment plant water systems requiring approval by this subsection or water systems approved by variance. Approval by the department does not relieve any person of any liability which may result from injury or damage suffered by any other person. In addition, failure to comply with any condition of an approval or the construction, reconstruction or operation of any well or water system in violation of any statute, rule or department order shall void the approval. Approval is required for:

(a) The construction, reconstruction, or operation of a high capacity well or well system, including dewatering wells. An application for a high capacity well or well system approval shall include, for every well, the location, construction or reconstruction features, pump installation features, the proposed rate of operation and the distance to nearby public utility wells, as defined in s. 196.01, Stats.

After-the-Fact Req's

NR 108.04 Plans for reviewable projects.

(5) POST START OF CONSTRUCTION SUBMITTALS. The department may not approve plans and specifications for any project for which construction has commenced. The department may review the plans and specifications and require changes to components which may adversely affect public health, the operation of the proposed or existing facility and the determination of permit compliance. This review does not prohibit the department from taking enforcement action under s. NR 108.03.

NR 108.03 Construction of reviewable projects.

(1) No person may commence, or cause to be commenced, construction of any reviewable project until final plans and specifications for such project have been reviewed and approved by the department or until at least 90 days has elapsed since the submission of final plans and specifications to the department, and the department has not rejected the final plans and specifications. The 90–day time period may be extended as provided in s. 281.41, Stats.

ATF Reviews

Year	No. of ATF Reviews*	Types of Projects
2015	5	New well pump/increase in capacity; VFD installation; new/replaced chemical feed equipment (not like kind)
2016	4	Chlorine injection system; Nitrate analyzer & SCADA upgrades; Iron removal system; elevated storage tank modifications
2017	7	Well casing modifications; water main replacement; replaced chemical feed equipment (not like kind); elevated storage tank modifications
2018	18	Cross connection; new well pump (not like kind); chlorine injection system/modifications; filter discharge modifications; VFD installation; chemical treatment modifications (control panel, process/dose, equipment); elevated storage tank modifications
2019 *(to date)*	2	Well rehab and new well pump; chemical treatment system addition

* Record keeping/identification has continued to improve, so these numbers may be low

Proposed ATF Operating Procedure

Table 1- NON vs. NOV Severity Consideration Matrix

Notice Type	Criteria	Examples
Notice of Noncompliance	- Impacts secondary drinking water standards - Has the potential to impact finished water quality (NR 810.20)	- Replacement infrastructure is 'not like-kind' (i.e. Discharge piping, valves, other appurtenances, chemical feeders, well pumps, etc.) - Well rehabilitation - Replaced existing treatment process with new process components or a new process for secondary contaminant - Chemical dose modification (*see the Guidance for Field approval vs. Plan Approval Chemical Feed Submittals*)
Notice of Violation	- Impacts primary drinking water standards - Adversely impacts the finished water quality parameters (NR 810.20) - Comes in direct contact with drinking water - Impacts design and/or operation of water system -Repeat pattern of after-the-fact reviews	- Started construction of new source, storage structure, building, treatment process, transmission mains, booster station, or other infrastructure - Constructed infrastructure without prior approval that is different than what was previously approved - Replaced existing treatment process with new process components or a new process for primary contaminant - New chemical addition - Chemical dose modification (*see the Guidance for Field approval vs. Plan Approval Chemical Feed Submittals*)

DRAFT

Proposed ATF Operating Procedure

DNR person sending NON*:

- Plan Reviewer if discovered during plan review
- Field Representative if discovered during an inspection (sanitary survey, onsite, etc.)

Environmental Enforcement will continue to send all NOVs

**System/owner will NOT receive two NON's for the same ATF project*

Proposed ATF Operating Procedure

Standard language:

Notice of noncompliance: In accordance with s. NR 811.08, Wis. Admin. Code, written Department approval shall be obtained prior to starting construction for all reviewable projects as defined by s. NR 108.03 (1), Wis. Admin. Code. This is to notify you that a notice of noncompliance is hereby being issued for the work conducted without prior to department approval and that future violations of this nature may result in enforcement action by the Department.

Safe Drinking Water Loan Program Training Requirements for Governing Bodies

Cathy Wunderlich - Public Water Engineering Section Chief

SDW Loan Program Training

Technical Capacity
- Source water adequacy
- Infrastructure adequacy including source, treatment, distribution, storage
- Technical knowledge and imple-mentation

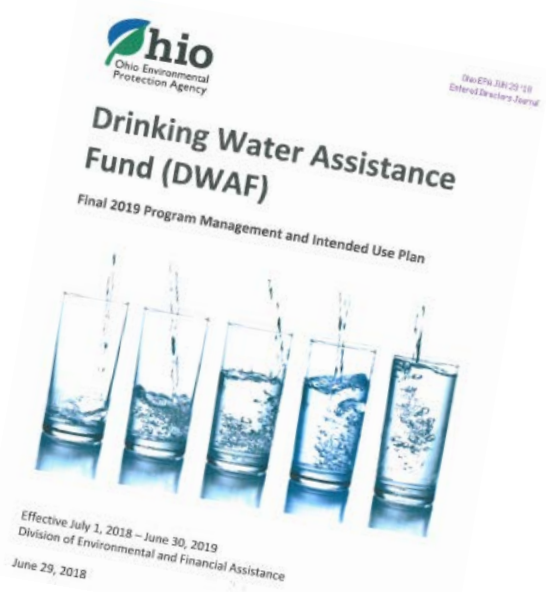
Managerial Capacity
- Ownership accountability
- Staffing and organization
- Effective external linkages

Short- and Long-Term Planning

Financial Capacity
- Revenue sufficiency
- Credit worthiness
- Fiscal management and controls

SDW Loan Program Training

9. Training requirements are still mandatory for all disadvantaged systems obtaining principal forgiveness in this program year. A minimum of 50% of the council members or governing board members for the water system must complete the following Rural Communities Assistance Program (RCAP) courses prior to loan award: 101 Utility Management for Local Officials and 201 Financial Management for Local Officials within the last five years. Both courses are offered free of charge and are available online or in a classroom setting. Ohio EPA will reassess and determine the final loan terms including disadvantaged community eligibility at the time of loan award.


Ohio Environmental Protection Agency

Drinking Water Assistance Fund (DWAF)

Final 2019 Program Management and Intended Use Plan

Effective July 1, 2018 – June 30, 2019
Division of Environmental and Financial Assistance

June 29, 2018

SDW Loan Program Training

360water Ohio EPA

Info | Courses

Utility Management for Local Officials

Part 1: Managerial Capability

- Utility Mgmt for Local Officials Part 1: Managerial Capability Course (History)

  Documents

Part 2: Technical Capability

- Utility Mgmt for Local Officials Part 2: Technical Capability Course

  Documents

Part 3: Financial Capability

- Utility Mgmt for Local Officials Part 3: Financial Capability Course

  Documents

SDW Loan Program Training

3 Required Courses*:

- Utility Management, Part 1 & 2 (Managerial Capacity)

  Available in 2020

- Asset Management (Technical Capacity)

  Available in 2021

- Financial Management (Financial Capacity)

  Available in 2022

**For governing bodies (village boards, city councils, town board, commissions) to improve on the owner-operator relationship and ultimately water utility success*

SDW Loan Program Training

Project Scope:

- Four 45-60 minute training modules
  - Free, online, accessible at any time
  - Interactive
  - Various forms of media (video, audio, written)
  - Min. 4 intermittent course review questions during the training
  - Min. 10 quiz questions at the end
  - Printable certificate at completion
  - Record of attendees and quiz score records

SDW Loan Program Training

Online Training Scope:

Course #1: Utility Management, Part 1 & 2 (Managerial Capacity) *Available in 2020*

- detail the overall roles and responsibilities of:
  - municipal water system operators,
  - utility managers, and
  - governing bodies

  as they relate to the technical, managerial, and financial capacity of owning and operating a water utility.

SDW Loan Program Training

Online Training Scope:

Course #2: Asset Management (Technical Capacity)

Available in 2021

- Detailed overview of:
  - How to create and maintain an asset inventory,
  - How to use an asset management plan to guide a utility's TMF decision-making
- Provide an understanding of long-term utility planning, budgeting, maintenance, and improvement projects;
- Cover the core components of asset management, including: current state of the assets, level of service, criticality, life-cycle costing, and long-term funding.

SDW Loan Program Training

Online Training Scope:

Course #3: Financial Management (Financial Capacity)

Available in 2022

- Delve deeper into financial planning, utility accounting, utility water rates, and management of planned vs. unplanned expenses;
- Introduce the concepts of shared services, public water partnerships, and how economies of scale can reduce costs;
- examine external factors that can impact the financial health of a utility, including population boom and decline, loss or addition of a major water customer, rule and regulation changes, new treatment requirements, emergency situations, and natural disasters.

Internal Updates

Kyle Burton – Field Operations Director

Reminders

- **2019 Seasonal Start-Ups**
  - ***Transient Non-Community Systems***
    - ***Receive Brochure – must fill out at return***
    - ***Link to Seasonal Start-Up Presentation Slides:***
      https://dnr.wi.gov/topic/DrinkingWater/documents/StudyGroup/Presentation20180405.pdf

- **2019 Annual Site Visits (ASV)**
  - ***Transient Non-Community Systems***
    - ***Annual visit completed by DNR and County Staff***
      - ***Required by RTCR***
      - ***Well, Pressure, and Distribution significant issues***
    - ***Link to ASV Slides:***
      https://dnr.wi.gov/topic/DrinkingWater/documents/StudyGroup/Presentation20180718.pdf

Reminders

- ***Annual Municipal cross connection control reports for 2019 are requested by March 1, 2019, per NR 810.15.***

- ***Consumer Confidence Reports for Community Water Systems are required to be completed and delivered by July 1, 2019 per NR 809.83(2)(a)***

Electronic Monthly Operating Reports (EMOR)

- ***Section NR 810.07, Wisconsin Administrative Code requires all suppliers of water for municipal water systems to submit monthly reports to the appropriate regional office of the Department.***

- ***Section NR 108.06(4), Wis. Adm. Code, requires reports regarding operation of waterworks during the preceding month to be submitted to the Department no later than the 10th day of each month.***

Electronic Monthly Operating Reports (EMOR)

- ***Late and Missing EMOR reports result in Reporting Violations and Notice of Non-Compliance Letters***
  - In the past DNR has extended the EMOR reporting deadline when advance notice was received for reasonable requests (i.e. additional training or resources needed, technical difficulties, etc.)
  - This is NOT consistent with how we handle such items (reporting violations) across the rest of the public water program.

- ***Section NR 108.06(4), Wis. Adm. Code, does not give DNR authority to waive reporting violations.***
  - Effective **APRIL 1, 2019** DNR will no longer waive EMOR reporting violations for any reason.
  - Drinking Water Program has developed a communication plan and Field Engineers have been notifying operators since February 2019

Water Supply Service Area Planning

- By 2026, all water utilities that serve a **population of 10,000 or more people** will be required to develop a Water Supply Service Area Plan (see s. 281.348, Wis. Stats.)

- The law requires that communities assess the **quantity and quality of available water supply** through a practical planning process that spans a 20-year period.
  - It is not intended to provide the level of detail involved in an engineering or facility planning.

- More information will be provided by the DNR's Water Use Section in 2020. Visit dnr.wi.gov search "water supply service area planning"

Contact Information

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Wisconsin DNR

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Christopher.Fuchsteiner@Wisconsin.gov

WPDES Permits for Flushing and Pump to Waste

- ***New Permit will be out for public notice May-June 2019***
  - ***Wastewater Program***
  - Applicable to discharges from hydrant flushing, hydrostatic testing, well development, water tower drainage, pigging operations, or other similar operations to waters of the state
  - Have permittees reapply under Operation and Maintenance of Water Distribution and Storage Systems General Permit
  - All Municipal Water Utilities will need coverage under Reissued General Permit (currently 348 out of 610 not covered under old permit)

Contact Information

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Email: Trevor.Moen@Wisconsin.gov.

General Permits Webpage: https://dnr.wi.gov/topic/wastewater/GeneralPermits.html

NR 812 Rulemaking Scope

DNR is proposing to revise NR 812 to:

- correct and clarify errors and unclear language
- streamline processes and requirements
- update construction standards
- be consistent with federal and state law

…while maintaining protection of groundwater and public health.

NR 812 Rulemaking Timeline

- January 2019 – Public Comment Period
- Spring 2019 – Review and Summarize Public Comments, Update Draft Rule in Response
- May 22, 2019 - Natural Resources Board meeting for adoption
- Summer/Fall 2019 – Governor and Legislative Review
- **January 2020** – Final rule changes published and go into effect

  ** if all steps are on schedule…*

Member roundtable

Wrap–up and adjourn

Next Meeting Date:

August 7, 2019

GEF 2, State Natural Resources Building, Madison, 9:30a.m. – 12:30 p.m.

Meeting minutes will be posted on the Drinking Water & Groundwater Study Group website