OFFICIAL BULLETIN

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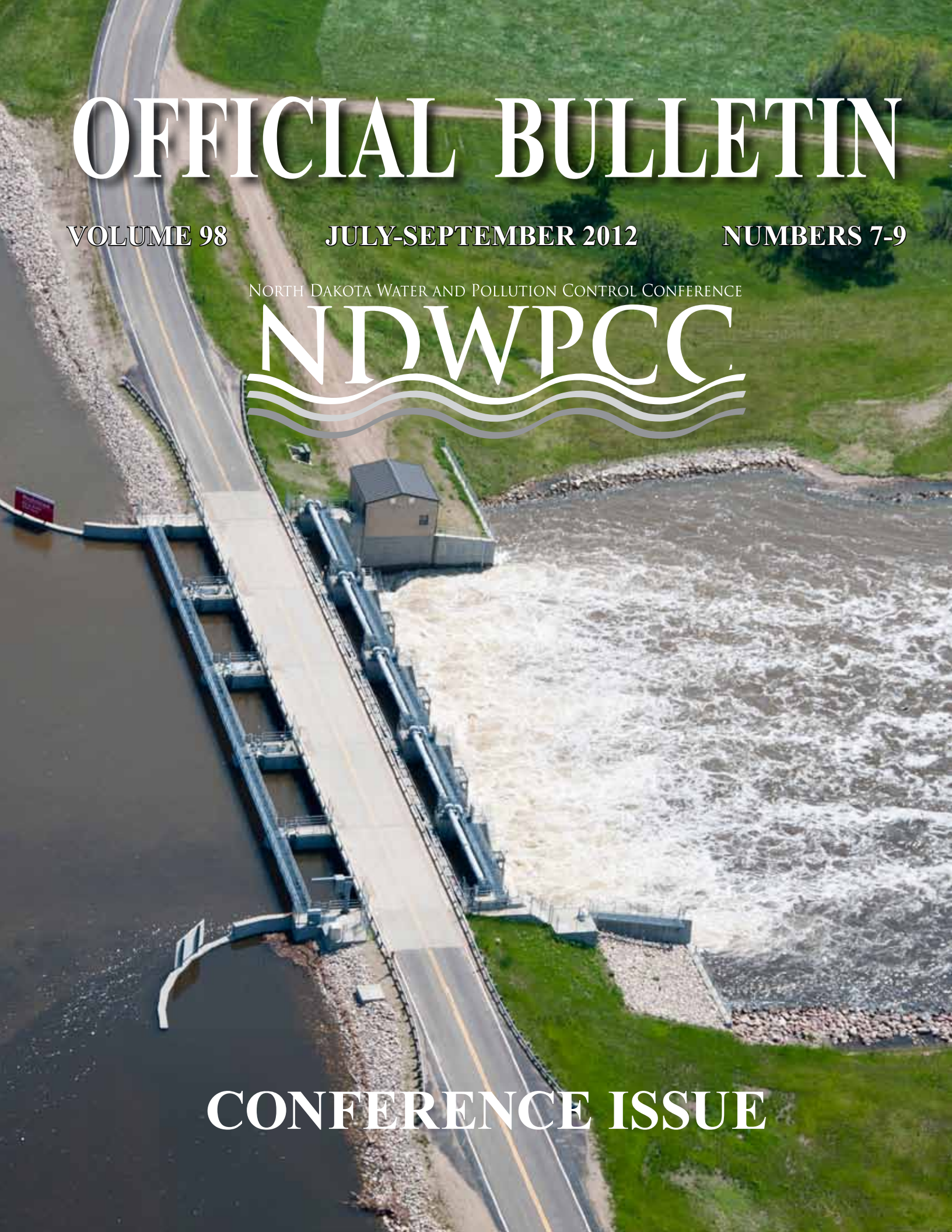
North Dakota Water and Pollution Control Conference

NDWPCC



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On the cover: The Lake Darling Dam released record flows of water during 2011. The dam is located northwest of Minot, on the Mouse River (photo by Sgt. Brett Miller, North Dakota National Guard Visual Information).

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The objectives of this Conference shall be: the advancement of the knowledge of design, construction, operation and management of water and wastewater systems; the promotion and encouragement, through annual meetings or otherwise, of an exchange of information and experience among its membership; the promotion and encouragement of the protection of public health and improved environment through the construction and efficient operation of water supply and wastewater treatment facilities; and the promotion of water and wastewater system operator education and certification programs.

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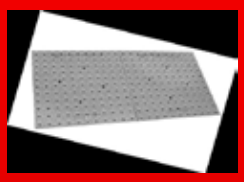

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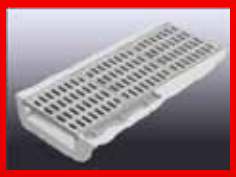

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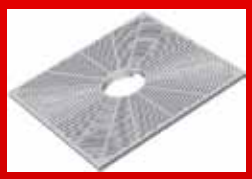

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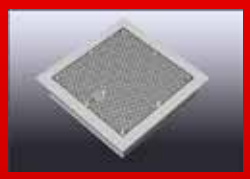

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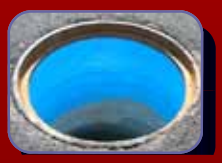

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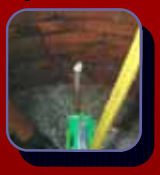

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2011 Mouse River Flood: Response and Recovery
Facing the Worst

Mark Lyman, Odney

A view of the central valley of the city of Minot with the swollen Mouse River at its height, June 26, 2011. (photo by Army Sgt. Darron Salzer, National Guard Bureau)

The Mouse River flood of 2011 will long be remembered as a flood that the region almost beat, but in the end, Mother Nature wasn't to be stopped. In the decades since the last major flood of the Mouse River (called the Souris River in Canada and by the U.S. federal government, but the Mouse River in North Dakota), tens of millions of dollars in channel improvements, dam enlargements and reservoir additions to the river system have protected the city of Minot. This protection was designed to at least 5,000 cubic feet per second (cfs) of water flow in the Mouse River.

Additional measures taken by raising levees and dikes in the weeks and months prior to the flood of 2011 had the Mouse River contained within its banks to just over 10,000 cfs. So, up until the middle of June 2011, many thought residents in the valley would escape the worst case scenario. In the end, the heavy rainfall in the upper Souris River Basin in mid-June 2011 proved too much to handle.

At its height, the Mouse River pushed more than 27,000 cfs through river gauges. Water flows of that level would fill an Olympic-size pool in just four seconds – truly an enormous, unprecedented amount of water. The level of water topped out at nearly 1,562 feet above sea level on June 26, 2011 – surpassing the record set in 1881 by almost 4 feet.

The city of Minot built emergency, secondary levees that saved more than 700 homes, valued at more than $100 million. This photo shows the northwestern side of Minot. (photo by Army Sgt. Darron Salzer, National Guard Bureau)

More than 11,000 residents were evacuated as the Mouse River damaged more than 4,100 homes and hundreds of businesses along its path across north central North Dakota. The estimated total level of damage on personal property, contents, commercial and farm structures has been set at more than $650 million by the U.S. Army Corps of Engineers. Add to that the damage done to public infrastructure, schools and parks, money spent fighting the flood and the unknown dollars needed to continue recovery efforts, and there is easily a billion dollar price tag attached to the 2011 Mouse River flood.

For weeks, homeowners waited while the river slowly receded, wondering what would be left in the 2,500 plus homes where 6 to 10 feet of water inundated the main floor. When the families did return to the valley, volunteers followed. Thousands poured into the communities to provide a helping hand in starting the long process of restoring homes.

We are on our Way back.

It could have been worse. No one lost his or her life as a direct result of the flood, and yet, no one's life in the region will ever be quite the same. A "new normal" has already developed for some, while others work to make 2012 truly a "Summer of Hope" as they rebuild.

The city of Minot estimates that more than half of the homes flooded in 2011 are already restored and being occupied. The "I'm Coming Back" signs popular during the flood, are slightly modified once the homeowner returns.

In the region's time of need, many organizations from across our great state and region stepped up in the true spirit of volunteerism and charity. Their service and kindness will never be forgotten.

It's obvious that recovery from a disaster of this magnitude doesn't happen overnight, within a year or even in five years and yet looking back at how far the entire community has come in the first year, ther eis much to be proud of.

Through all the damage, devastation and destruction, Minot remains a resilient community, insistent on being positive and focusing on the many varied elements of recovery. And while the new normal presents unique challenges at every turn, Minot residents know they can face them as they rebuild and recover together.

Resources Used in the Flood Fight

- More than 750,000 cubic yards of clay hauled to levees
- 200+ trucks
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The North Dakota National Guard assisted the city of Minot greatly. On June 24, 2011, the Guard used a UH-60 Black Hawk helicopter to quickly reinforce a flood levee at 13th Street and Railway Avenue with a 1-ton sandbag. (photo by Senior Master Sgt. David H. Lipp)

- 2 million+ sandbags
- 1 ton bags – placement done by Black Hawk helicopters
- 100+ city of Minot public works personnel
- 800 North Dakota National Guard soldiers/airmen

Level of Devastation – By the Numbers

- 4,100 homes were flooded
- 3,100 homes extensively damaged or lost (6 feet or more of water on the property)
- One in 10 homes carried flood insurance
- 11,000+ individuals displaced
- Six Minot public schools severely damaged
  - Two schools labeled as complete losses
  - 1,200 students displaced
- 200+ businesses damaged
- 51 park buildings damaged
  - Five baseball fields damaged
  - 29 zoo buildings damaged
  - Roosevelt pool and bathhouse lost
  - Oak Park splash pad and mechanical building lost
  - Nine playgrounds damaged
- 12 churches damaged
- 20+ breaks in the city's water system
- 12 of 27 city-wide sanitary lift stations inundated with water

Ramstad Middle School was deemed a complete loss by FEMA and Minot Public Schools (MPS) as this look at a classroom inside the building illustrates (photo by MPS).

Many of the Minot park district's parks, green spaces, baseball fields, the zoo and main golf course were swamped by the 2011 flood. This is what one hole along the Souris Valley Golf Course looked like after the waters receded.

A sink hole approximately 7 feet long and 6 feet across is shown on El Rio Drive in Minot, July 16, 2011. (photo by Master Sgt. Marvin Baker, Joint Force Headquarters)

- 13 (all) city water wells inundated with water
- Six river pump stations damaged
- 30 to 40 sink holes due to ground water
- Three pedestrian bridges damaged
- Two highway/street bridges damaged
- 277 street lights damaged
- 16 electrical feed points damaged
- 1,000 traffic signs damaged
- 51 miles of roads, sewer and water lines damaged
- 33 miles of storm sewers damaged

How the City of Minot Responded to Flood Recovery Needs in the Past Year.

The city of Minot coordinated closely with a variety of state and federal agencies in the prolonged flood fight. City staff worked around the clock to organize and manage the hundreds of trucks of clay needed to build up the existing river banks in an effort to protect Minot residents. After it became evident that the Mouse River would overflow enhanced levees, the city turned its attention to critical infrastructure, such as the water treatment plant, in the fight to protect tens of millions of dollars in public structures that serve the entire city.

In the weeks and months following the flood, city staff set about assessing damages, prioritizing projects and

On June 22, 2011, water from the swollen Mouse River started to pour over the city's emergency levees. (photo courtesy North Dakota National Guard)

beginning the immense task of making emergency repairs and preparing for long-term recovery.

Recognizing the need to offer as many "breaks" for flooded homeowners as possible, the city suspended the cost requirement on building permits for reconstruction done by homeowners. In addition, in 2011 assessments were done on roughly 3,500 homes in the flood zone, and property tax discounts were given for the last six months of the year. A similar assessment was done in early 2012 on more than 2,700 homes with main-floor water damage from the flood. The assessment allowed the city to more accurately determine property values in the flood zone. By spring of 2012, roughly 42 percent of those hardest hit were either already living in their rehabbed home or appeared close to completing the rebuilding process.

A local survey of landlords whose apartments or houses were impacted by the 2011 Mouse River flood shows "about 50 percent of the rental units in Minot have been or will be back in service very soon." The survey was conducted in December 2011 by the Great Plains Center for Community Research & Service at Minot State University.

A key goal for the city was to provide adequate housing prior to winter setting in. Working closely with federal partners, the Federal Emergency Management Agency

Continued on page 9

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Continued from page 7

(FEMA) and the city were able to secure locations for housing units. At these sites and on personal property in the flood zone. Just over 2,000 FEMA temporary housing units were put in place. This represents the peak of the program's impact. As of early August 2012, the number of FEMA units in Ward County was down to 1,263.

Hundreds of street lights, more than a dozen intersection signals and at least 22 electrical hub feed points in the city were damaged by the 2011 flood. By early 2012, the city had repaired more than 60 of the street light and pedestrian flashing signals that belonged solely to Minot. The city went through the Federal Highway Administration for funding to repair or replace street lights and intersection signals along federal-aid roads. A lengthy review and comprehensive assessment of damage along federal aid routes (streets such as Burdick Expressway, 16th Street, 4th Avenue and others) was submitted by the city and has been reviewed and completed by the appropriate state and federal agencies. Projects to fix street lights and intersection signals were scheduled to be finished this fall to repair 10 intersection signals and close to 200 street lights.

Lynn Braaten takes off her mask after removing debris from her grandmother's house in Minot, July 24, 2011. Most of the debris behind Lynn was taken out of the house by a volunteer group from The Church of Jesus Christ of Latter-day Saints, in town to help flood victims. (photo by Master Sgt. Marvin Baker, Joint Force Headquarters)

The greatest challenge faced by the Minot Fire Department during the flood was ensuring it could reach all of its residents when emergency help was needed. As roadways and bridges were lost to the flood waters, the fire department moved assets around in order to reach all areas of Minot.

This included opening a temporary fire station at the city shop to serve southeast Minot. The Minot Fire Department opened a Rescue Operations Center at Fire Station One and had three airboat teams along with National Guard high wheel vehicles and helicopters available for rescue and infrastructure work throughout the city and along the entire Souris River Valley. As the waters receded, the Minot Fire Department worked with First District Health Unit, Law Enforcement, Montana Dakota Utilities, Northern States Power and the Building Inspections Department to ensure the safe reentry of the city's residents.

After the flood, the U.S. Army Corps of Engineers and its contractors were given the flood debris removal mission by FEMA. In 2011, they removed more than 61,000 tons of debris within Ward County, including 54,000 tons from Minot. The flood debris removal project finished in 2012 with two pickups scheduled for the spring and summer. These last pickups collected 2,531 tons of debris.

A regional engineering team, hired by the North Dakota State Water Commission at the request of the Souris River Joint Water Resource Board, has presented an enhanced flood protection project proposal for the valley. This project has an estimated price tag of $820 million and would cover communities from Burlington to Velva, including Minot, and would protect to the flood of record (last year's 27,400 cfs). In April 2012, the Minot City Council decided unanimously to adopt the flood protection plan as laid out in the Preliminary Engineering Report. The council requested the North Dakota State Water Commission contract with the engineering team to put the project into phases. This would allow the enhanced flood protection project to proceed as funding sources become available.

According to the mayor of Minot, having a plan adopted by the city council allows residents in the flooded areas to know with more certainty the direction the city would like to take with an enhanced flood protection plan. With the potential for water management changes with the Canadians and potential increased storage space, the city feels comfortable that this direction will protect Minot to the flood of record, 27,400 cfs. Having the footprint laid out for a larger plan would allow the addition of earthen levees in a scenario similar to the flood of 2011.

In 2011, the city of Minot hired a flood recovery consultant to manage project worksheets as they relate to FEMA reimbursements for flood recovery expenses. The city continues to work with its disaster consultant, CDM Smith, in completing and obtaining the proper federal funding for damages caused during the flood. Overall, project worksheets that have been or are in the process of being written equal nearly 10 million dollars. Some of these projects include sanitary sewer lift station repairs, city street repairs (e.g., sinkholes), water well cleaning and mold remediation, pedestrian bridge repairs and others.

This home was a typical site in the Minot valley as many homeowners had to completely gut out their properties. (photo courtesy city of Minot)

City staff and consultants compiled a 123-page report titled, "City of Minot Long-Term Recovery Framework with an Emphasis on Mitigation." This document identifies short-term, mid-term and long-term goal areas and projects that the city of Minot wishes to achieve in order to reduce or limit the effects of future disasters.

This long-term recovery framework will assist the city of Minot in efforts to secure important hazard mitigation funding from the federal government. Additional flood recovery city staff positions were recently approved by the city council. At this time, the city has identified the need for two project engineers, an assistant city planner, a disaster recovery grant reporting clerk, an assistant finance director, an invoice clerk and an internal auditor, as well as additional staffing in the city attorney's office and inspectors as needed.

In late 2011, the city of Minot identified roughly 115 homes it would like to acquire regardless of permanent flood protection plans or decisions. The acquisition of these homes would provide easier access to the current levee system for future flood control until the adopted plan is designed and constructed. Funding for these home acquisitions has been identified. Environmental reviews and other portions of the closing process are now underway. Additional properties may be identified for acquisition in the future.

More than 1,000 FEMA temporary housing units remain in Minot, more than one year after the flood. (photo courtesy city of Minot)

The city learned in 2012 that it would be the recipient of more than $67.5 million in Community Development Block Grant-Disaster Recovery (CDBG-DR) funds. This grant comes from the federal government to address unique community needs. The CDBG-DR funds are for economic development, housing assistance to include acquisition programs, rehabilitation and repair and public infrastructure. City leaders and staff developed a recovery action plan that is a key initial step before putting the money to use. This action plan can be viewed on the city's Recovery Information website, www.minotrecoveryinfo.com.

The city has received approval for millions of dollars in flood impact aid, as the North Dakota Department of Trust Lands agreed in late April on infrastructure development grants. Minot will receive grants totaling $12.6 million to assist in a variety of flood recovery projects, including:

- Property acquisition for homes damaged by temporary dikes/levees, $.75 million
- Repairs to sewer lift (pumping) stations, $4.05 million
- Completion of the Puppy Dog sewer expansion in south Minot, $.65 million
- Expansion of the Minot landfill, $2.15 million
- Expansion of sanitary sewer lines in north Minot, $5 million

Engineering on the above projects is underway. The Department of Trust Lands grants will pay up to 50 percent of the total amount required for individual projects. In total, the five projects that received partial funding from the state will cost roughly $37.5 million.

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Timeline of events leading up to the 2011 Mouse River Flood

January 2011

8 - Lake Darling releasing 200 cfs with plans to increase to 450 cfs.

10 - Saskatchewan Watershed Authority begins first-ever winter releases from Rafferty Reservoir "necessary for spring flood protection and to meet the water level requirements specified in the International Agreement on Water Supply and Flood Control in the Souris River Basin with the United States."

26 - The National Weather Service predicts "major flooding" probable once the spring melt gets under way. Souris River Basin in Canada has received heavy snowfall on top of 200 percent of normal moisture in many areas, including the Moose Mountains drainage.

February 2011

6 - Lake Darling releasing 600 cfs.

18 - National Weather Service (NWS) issues ominous Flood Potential Outlook for the Souris River Basin. "The risk of flooding from late winter into spring is well above normal for most locations in the Souris River Basin. In fact, several locations do not have historical model solutions that would produce an orderly runoff with no flood risk. That goes through 60 years of historical data. It's probably in the top three in terms of water sitting in the basin. The basic expectation is for a tremendous amount of water coming through the Souris Basin this spring. There's a pile of water for this time of year, a pile of water." Alan Schlag, NWS.

25 - Lake Darling releasing 1,100 cfs. NWS reports that models show this year's snowpack contains a water content ranked among the highest in the last 60 years.

26 - Lake Darling level at 1,594.9.

March 2011

25 - New NWS Flood Outlook shows a big jump in Souris River predictions, increasing the possibility of reaching flood stage at Broadway Bridge from 52 percent to 82 percent. The Souris is given a 62 percent chance of reaching 1,551 feet and the Des Lacs River a 90 percent chance of surpassing flood stage. All three dams in Saskatchewan are at or below flood storage zones.

30 - City begins plans for emergency diking. NWS confirms forecast.

Rafferty Reservoir 19.1 feet below spillway level, Alameda 34.4 feet below spillway, Lake Darling 6 feet below spillway

April 2011

1 - Lake Darling level at 1,594.98. City begins preliminary plans for protection against 7,000 cfs.

11 - Lake Darling releasing 2,400 cfs. First flooding occurs in Burlington.

12 - Lake Darling cuts releases to 1,500 cfs at 12:15 p.m., record flow of 6,790 cfs is recorded in Long Creek. Broadway Bridge 1,846.6 feet, flow of 3,600 cfs.

26 - Flow at Boy Scout Bridge reaches 5,440 cfs, flooding underway.

"The Souris River broke all-time flow records in its upper reaches, snow remains and flows are increasing." Saskatchewan Watershed Authority

May 2011

2 - Lake Darling releasing 3,800 cfs; Corps announces cut to 3,000 cfs by Friday, May 6.

10 - Releases from Saskatchewan dams totals 4,907 cfs. Rafferty and Boundary declared "pass through" facilities by Saskatchewan Watershed Authority, and an "Advisory" is issued for the Souris Basin.

Flows of 7,000 to 10,000 cfs at Sherwood predicted as rainstorm approaches. Lake Darling releases cut from 3,800 to 3,500 cfs, elevation 1,597.15 feet.

11 - Saskatchewan Watershed Authority announces Rafferty at maximum allowable elevation, meaning outflows must match inflows. Boundary and Rafferty are also at maximum levels with no capacity to store further inflows. Alameda expected to reach maximum elevation by May 17.

17 - Lake Darling releasing 4,800 cfs, the highest releases ever.

21 - Many basements in Minot reported to be taking on water, Broadway Bridge level at 1,552 feet.

23 - Water begins to enter city, NWS Flood Outlook calls for "additional rises."

24 - Minot City Council holds a special meeting to secure services of Corps of Engineers.

Lake Darling level at 1,600.14 feet with releases of 5,100 cfs.

25 - Dike improvement underway in Minot to protect against 9,000 cfs. Lake Darling releasing 5,500 cfs.

26 - Dike construction continues, some road closures in city, citizens told no immediate need to evacuate but should consider preparations to do so.

31 - Lake Darling level at 1,601.26.

Work begins on a secondary dike system to protect vital infrastructure in Minot. Saskatchewan Watershed Authority announces "reservoirs have no capacity to store further inflows."

The Lake Darling Dam released record flows of water during 2011. The dam is located northwest of Minot, on the Mouse River (photo by Sgt. Brett Miller, North Dakota National Guard Visual Information)

June 2011

1 - Saskatchewan dams releasing 7,943 cfs.

An estimated 10,000 Minot residents begin mandatory evacuation following a noon announcement to "get out of harm's way as soon as possible."

Rainfall causes Des Lacs River to rise 7 feet at Foxholm in 24 hours.

Minot told to expect 10,000 cfs, announces plan to raise primary diking system and fight the flood at the riverbank.

6 - Saskatchewan dams releasing 7,943 cfs. Minot evacuees allowed to return home.

Broadway Bridge reading 1,551.8 feet at 7,100 cfs, Lake Darling releasing 6,000 cfs.

12 - Broadway Bridge reaches 1,553.5, a new high for the year.

13 - Lake Darling releasing 7,500 cfs at an elevation of 1,600.75 feet, filling is projected.

Broadway Bridge at 1,553 feet with a flow of 8,100 cfs.

19 - Saskatchewan releasing at Estevan 15,885 cfs (following significant rain). At 11 p.m., Estevan is releasing 19,415 cfs.

20 - Lake Darling releasing 8,600 cfs; Saskatchewan dams releasing 23,760 cfs.

Mandatory evacuations ordered again in Minot. NWS forecasts 1,564.3 feet at Broadway Bridge, releases of 17,000 cfs possible for Lake Darling.

21 - Rafferty and Boundary releases through Estevan, Saskatchewan, reach 27,181 cfs; an additional 1,765 cfs released from Alameda for a total of 28,946 cfs.

Minot evacuation deadline moved from 10 p.m. Wednesday to 6 p.m. Wednesday.

22 - Sirens sound to evacuate all Minot flood zones. Souris flow at Estevan is 25,063 cfs.

23 - Souris flow at Estevan is 21,533 cfs.

24 - Souris flow at Estevan is 15,827 cfs. Souris River peaks at 29,700 cfs at Sherwood says USGS, previous record was 14,800 cfs in 1976. Lake Darling releasing 26,000 cfs, Broadway Bridge forecast now 1,564.5 feet; water begins flowing into city.

25 - Lake Darling releasing 24,000 cfs. Mayor Curt Zimbelman announces crest of 1,561.8 feet reached at Broadway Bridge;- boil order issued for Minot water supply.

(Timeline condensed and reprinted with permission from *The Minot Daily News*.) ♦

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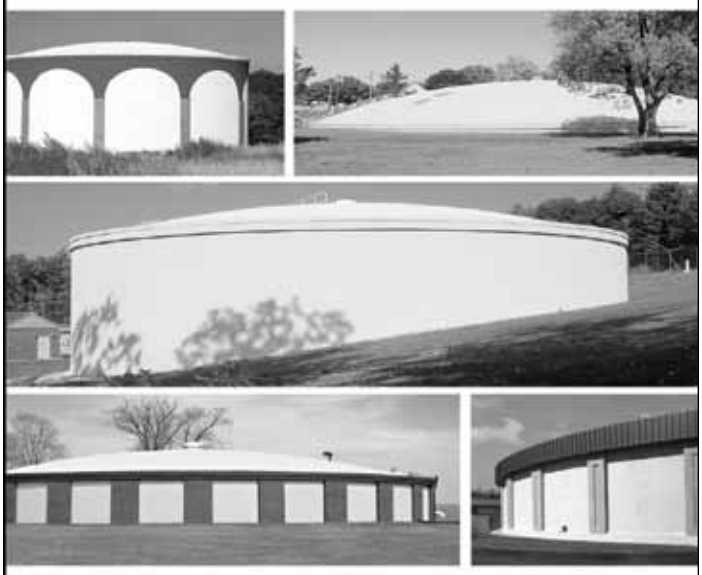

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President's Letter

KARLA OLSON
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Dear Conference Members and Friends:
The annual North Dakota Water and Pollution Control Conference is jointly sponsored by the North Dakota Water and Pollution Control Conference, the North Dakota Water Environment Association, the North Dakota Section of the American Water Works Association and the North Dakota Chapter of the American Public Works Association. On behalf of these sponsoring organizations, I am happy to invite you to attend the 84th Annual Conference on October 16, 17 and 18 at the Grand International Inn in Minot.

What an exciting time to be in North Dakota! The oil boom, strong agricultural base and other robust financial sectors have vaulted North Dakota to one of the most stable economic locations in the United States. None of the economic growth would be possible without reliable infrastructure. Water, wastewater, storm water and other public works projects are essential. So many of our conference attendees play an integral role in providing the necessary infrastructure to sustain this growth throughout the state. Whether you are an operator ensuring the infrastructure is maintained and properly working; a municipal, county or industry decision maker prioritizing projects; a state regulator making certain projects are built to standards or an engineer designing projects to solve problems – this conference is for you. As always, the conference includes technical sessions emphasizing issues affecting the state, a vendor exhibition showcasing infrastructure equipment and services, tours of local municipal projects, opportunities for professional networking with our colleagues and the chance to recognize deserving individuals in our industry.

I encourage you to not only attend this year's conference in Minot but also become active in one or more of these fine organizations. Your participation is important to the success of the Annual Conference and the sponsoring organizations. Register today – I look forward to seeing you in Minot!

Sincerely,
Karla Olson, President
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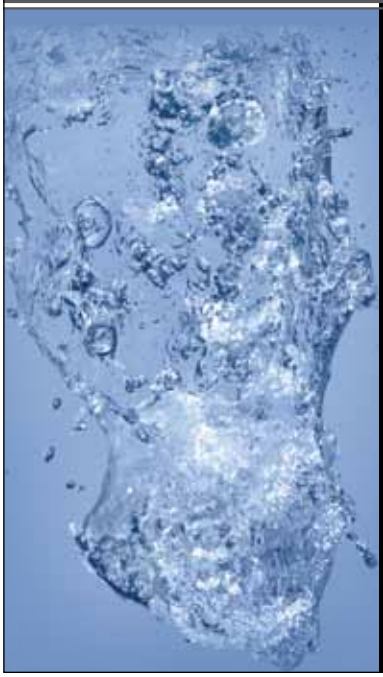

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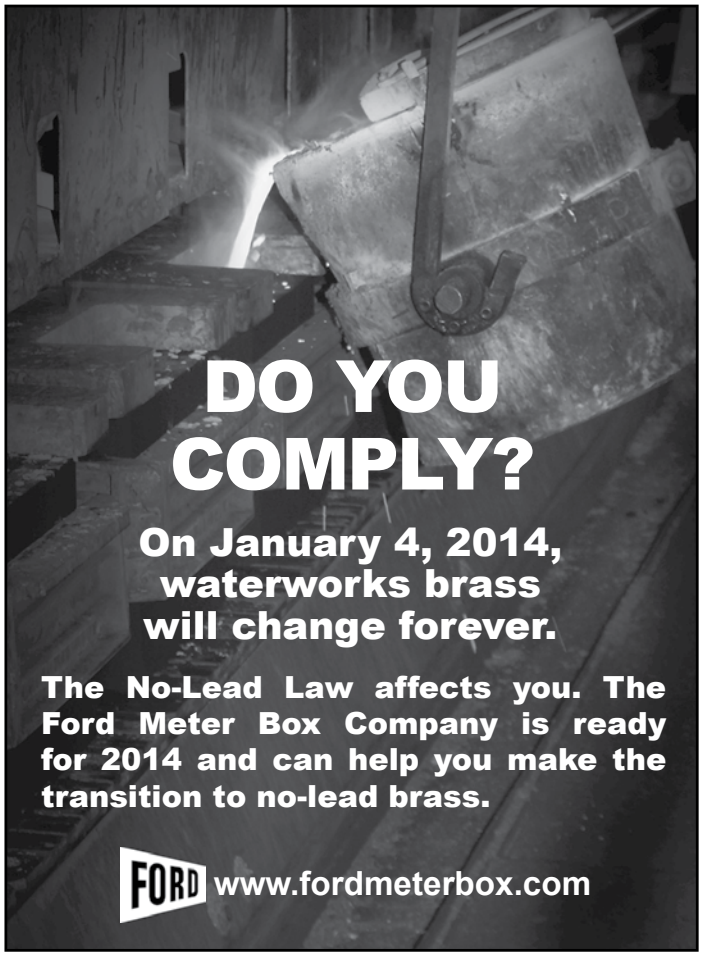

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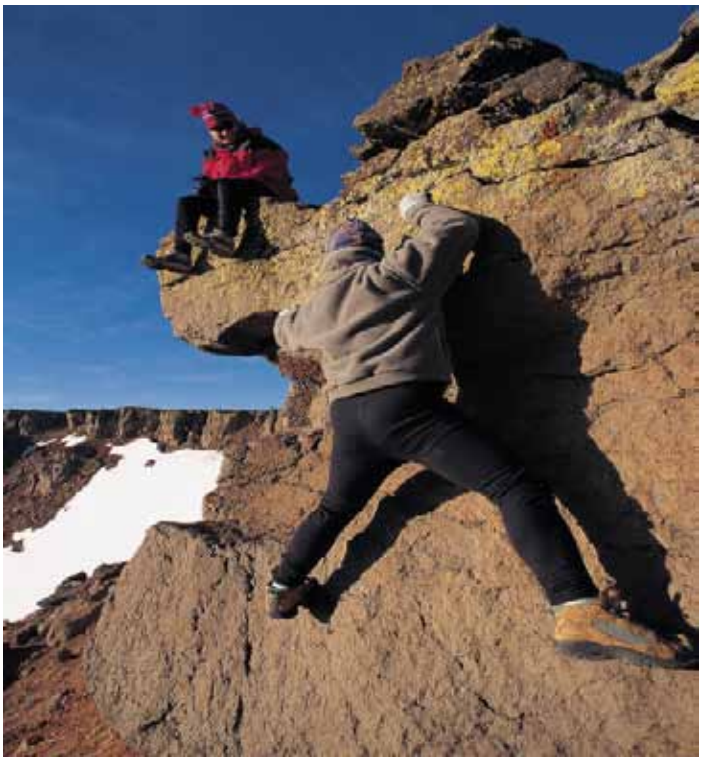
Stage 2 D/DBP Rule Operational Evaluation Level

Benefit or Burden

Lydia Fewless, North Dakota Department of Health, Division of Municipal Facilities



In the third article of a series outlining key components of the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 D/DBP Rule), I discussed operational evaluations. The evaluation report can and should be more than just a paperwork exercise.

The operational evaluation level (OEL) report can provide valuable information to assess current operational practices or to plan system modifications or improvements. The evaluation can also provide information for use in developing standard operation procedures, preventative maintenance plans and asset management plans.

Operational Evaluation Level (OEL) can and should be more than just a paperwork exercise

State review of OEL reports can provide insight for use in sanitary surveys, review of distribution, treatment or source modifications and in technical and compliance assistance.

Source Examination

The OEL must include an examination of source and source water changes. Disinfection Byproducts (DBPs) are formed when organic matter reacts with chlorine. Other factors like pH, alkalinity and temperature can also affect this reaction. Evaluating the source for these precursors and factors that have caused them can assist a system in deciding how best to treat or remove the precursors.

- If a reservoir experiences a heavy rainfall in spring followed by an algae bloom in summer, it may be decided that a system needs to review and update its source water protection plan or develop new standard operating procedures for these occurrences.

- An evaluation of multiple sources can assist a system in balancing the usage to provide the best source water quality.

- Source water quality is not limited to untreated water. A consecutive system's source is treated water and an evaluation of the precursors, chlorine levels, or DBPs at the master meter can assist a consecutive system in developing a treatment or control plan for its wholesale system.

Treatment Examination

The operational evaluation must include an examination of treatment changes or problems that may have occurred. Systems will have different treatment processes as well as different data available to them for regulatory reasons and/or for treatment process control.

- Surface water systems are required to monitor turbidity, but ground water systems

may have turbidity data for process control. An evaluation of any or all available data may help a system focus its evaluation.

- For example, if finished water total organic carbon is higher than normal, the system may have a problem with the coagulation process.

- If the chlorine concentration is higher than normal, the operator may have overfed chlorine for primary disinfection.

- Various treatment processes may affect the water quality entering the system and may include pre-disinfection, pre-sedimentation, coagulation, sedimentation, filtration, primary disinfection and secondary disinfection. These processes build upon each other, so any minor treatment changes or problems in one or more processes may not obviously cause an OEL exceedance; however when those changes or problems combine, they can cause an exceedance.

- Simultaneous compliance is a concern for many systems and affects their treatment process control. An evaluation may assist systems in choosing treatment processes that provide compliance with all regulatory rules.

Distribution Examination

If there are no obvious changes in the finished water parameters, the cause of the OEL exceedance may be in the distribution system. Consecutive systems may want to obtain treatment data from their wholesaler to help identify the cause of the OEL exceedance. The OEL must include an examination of storage tank operations, excess storage capacity and flushing. Factors like pH, temperature, water age, chlorine residual and pipeline or storage tank sediment affect DBP formation and can be controlled in the distribution system.

- Systems will have different data available to them, but most systems should have chlorine residual records, maintenance records, meter readings and customer complaint records.

- Systems may also have pump and tank level records which can be used to determine if storage tank operations contributed to the exceedance.

- A comparison of DBP data (concentrations entering the system to concentrations throughout the distribution system), can enable a system to focus on comprehensive strategies to achieve compliance.

- An evaluation of distribution system operations may also assist in the evaluation of treatment operations.

Finally, the OEL must include an examination of steps that could be considered to minimize future exceedances. The evaluation is conducted to ensure that the operational and design changes chosen will provide the most impact toward improving water quality and ensuring simultaneous compliance with Safe Drinking Water Act rules. Multiple steps may need to be taken simultaneously to create a substantial effect on water quality.

For example, if a system changes a treatment process to improve water quality entering the system it may need to make changes to operations in the distribution system to maintain that water quality at the DBP monitoring locations within the distribution system.

As part of a general communication strategy for OELs, consecutive systems are encouraged to ask the wholesale system to notify them in the event of source, treatment, or operational upsets that might impact DBP formation. Similarly, consecutive systems should notify the wholesale system if they encounter unusual water quality data such as changes in chlorine residuals or DBP concentrations.

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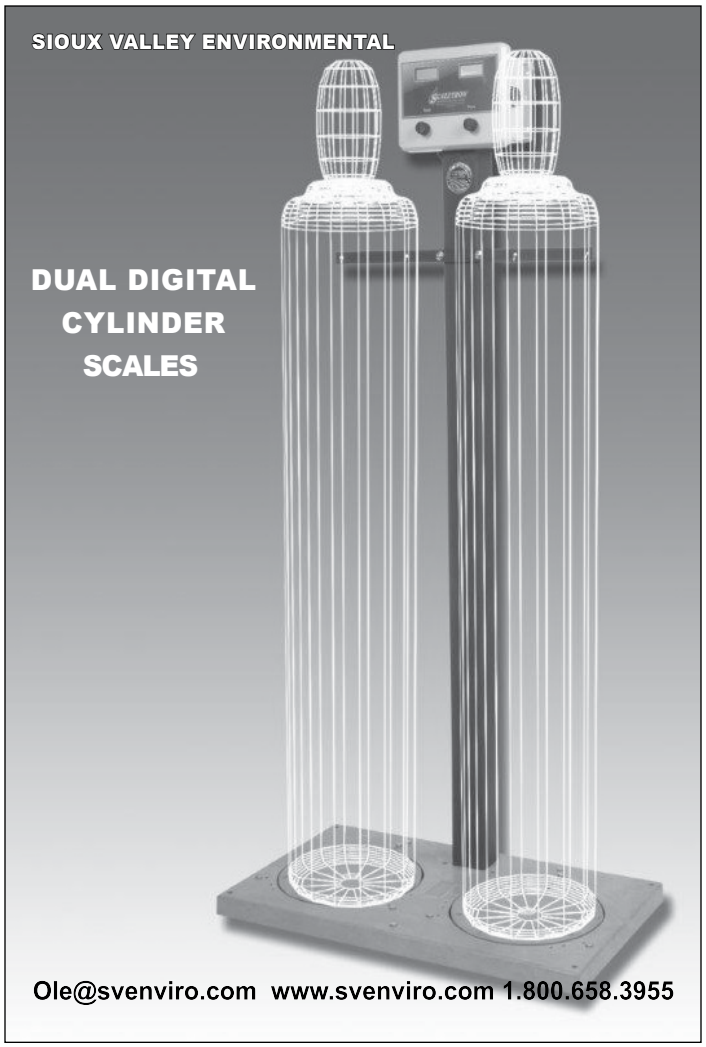
In conclusion, the OEL, an indicator of operational performance, can provide valuable information to use in future operational decisions or in planning system modifications or improvements if it is conducted systematically, in a timely manner and without any presumptions toward success or failure.

This is the fourth in a series of articles that summarizes key components of the Stage 2 D/DBP Rule. For additional information, please contact Lydia Fewless at lfewless@nd.gov or by phone 701-328-5221. Additional information is also available on the EPA web site at http://www.epa.gov/safewater/disinfection/stage2/compliance.html



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A Spreadsheet for Calculating Locational Running Annual Averages and OEL Exceedances

Lydia Fewless, North Dakota Department of Health, Division of Municipal Facilities

The Stage 2 Disinfectants and Disinfection Byproducts Rule compliance monitoring of disinfection byproducts (DBPs) took effect April 2012 beginning with large water systems. With it comes the implementation of the operational evaluation level (OEL). An OEL is calculated based on the total trihalomethane (TTHM) and haloacetic acids (HAA5) levels at each compliance site for the current and previous two calendar quarters.

The formula is:

OEL = [sum of 2 previous quarters results + (2 × current quarter results)] ÷ 4

If the OEL at a Stage 2 monitoring site within a water system exceeds either 0.080 milligrams per liter (mg/L) for TTHM or 0.060 mg/L for HAA5, the system will have to conduct an OEL evaluation of its operational practices. The OEL must consider the factors which may have contributed to the OEL exceedances and what steps could be taken to minimize future exceedances. A written report of the evaluation has to be submitted to the state within 90 days. For each quarter that an OEL is exceeded, an evaluation report will be required. Failure to submit the OEL report would result in a reporting violation.

In the examples below, an OEL exceedance occurred in the third and fourth quarters at sites STG2-01 and STG2-03, and an OEL report would be required for both quarters. Note, however, the system was in compliance with the maximum contaminant level (MCL) based on its locational running annual average (LRAA).

Total Trihalomethanes (TTHM) – Stage 2 LRAA and OEL Calculations

SYSTEM NAME:

PWSID ID:

Year	Quarter/TTHM mg/L												
2012	Second		Third		Fourth				First, 2013				
Site	TTHM	LRAA	TTHM	LRAA	TTHM	OEL	OEL >0.080	LRAA	TTHM	OEL	OEL >0.080	LRAA	LRAA >0.080
STG2-01	57	NA	85	NA	107	89	YES	NA	65	81	YES	79	NO
STG2-02	46	NA	55	NA	64	57	NO	NA	54	57	NO	55	NO
STG2-03	60	NA	79	NA	106	87	YES	NA	70	81	YES	79	NO
STG2-04	54	NA	64	NA	59	59	NO	NA	62	62	NO	60	NO

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Total Haloacetic Acids Five (HAA5) – Stage 2 LRAA and OEL Calculations
SYSTEM NAME:
PWSID ID:

Year	Quarter/HAA5 mg/L												
2012	Second		Third		Fourth				First, 2013				
Site	HAA5	LRAA	HAA5	LRAA	HAA5	OEL	OEL >0.060	LRAA	HAA5	OEL	OEL >0.060	LRAA	LRAA >0.060
STG2-01	32	NA	54	NA	78	61	YES	NA	65	66	YES	57	NO
STG2-02	18	NA	22	NA	25	23	NO	NA	54	39	NO	30	NO
STG2-03	30	NA	58	NA	82	63	YES	NA	70	70	YES	60	NO
STG2-04	15	NA	19	NA	24	21	NO	NA	39	30	NO	24	NO

The purpose in calculating the OEL is to require a system to evaluate its performance in order to prevent a potential MCL violation. The OEL includes an examination of system treatment and distribution operational practices, including storage tank operations, excess storage capacity, distribution system flushing, changes in sources or source water quality and treatment changes or problems that may contribute to TTHM and HAA5 formation. The OEL also will address what steps could be considered to minimize future exceedances.

The scope of the OEL report may be limited by permission of the state if the water system is able to identify a specific cause for the OEL exceedance. A system wishing to limit the scope of its OEL must submit a written request to the state. If the state approves the limited scope of the evaluation, the system will receive permission in writing.

More information can be found in EPA's Stage 2 Disinfectants and Disinfection Byproduct Rule Operational Evaluation Guidance Manual (EPA 815-R-08-018) at www.epa.gov/ogwdw/disinfection/stage2/compliance.html

If you have additional questions regarding the Stage 2 Disinfectants and Disinfection Byproducts Rule and how the rule pertains to your system, please contact Lydia Fewless at lfewless@nd.gov or by phone 701-328-5221. ♦

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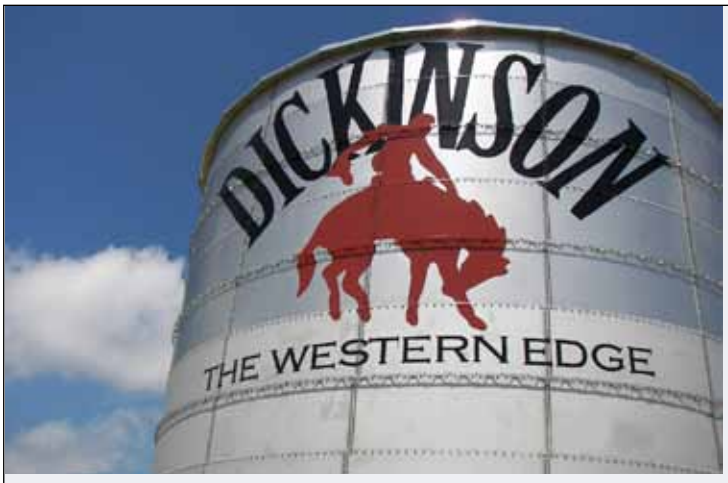

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Wednesday 8:00 a.m. - 5:00 p.m.
Thursday 8:00 a.m. - 10:00 a.m.
Hotel Lobby

MEALS

Tuesday Lunch 11:30 a.m.

Tuesday Buffet Dinner 5:00 p.m. - 7:00 p.m.
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Wednesday Free Buffet Breakfast 8:00 a.m. - 10:00 a.m.
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Thursday Lunch 12:00 noon
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Tuesday 7:30 a.m. - 11:30 a.m.
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Tuesday 7:00 p.m. - 9:00 p.m.
Set-up Time

Wednesday 7:00 a.m. - 7:30 a.m.
Last Chance Set-up Time

Wednesday 7:30 a.m. to 11:30 a.m.
Display Hours

Wednesday 11:30 a.m. - 1:30 p.m.
Takedown Time

LOCAL ARRANGEMENTS COMMITTEE

Jason Sorenson
Dan Jonasson
Dave Burckhard
Mark Vollmer
Dolly Mickelson
Lance Meyer
Rick Hair

REGISTRATION FORM

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NDWPCC
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JOINT MEETING OF THE
NORTH DAKOTA WATER & POLLUTION CONTROL CONFERENCE
NORTH DAKOTA CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION
NORTH DAKOTA WATER ENVIRONMENT ASSOCIATION
NORTH DAKOTA SECTION OF THE AMERICAN WATER WORKS ASSOCIATION
October 16, 17, and 18, 2012, Grand International Inn, Minot, North Dakota (701) 852-3161

Write in Costs

A. PACKAGE REGISTRATION ($150.00)

Includes all fees for registration banquet, buffet, and noon luncheons _____

PACKAGE REGISTRATION AFTER SEPTEMBER 28, 2012 ($170.00) _____

B. INDIVIDUAL COSTS IF PACKAGE NOT SELECTED

Registration ($60.00) _____

Student Registration ($10.00) _____

Tues. Luncheon ($11.00) _____

Tues. Evening Buffet ($26.00) _____

Wed. Buffet Breakfast (Sponsored by Tabletop Exhibitors)

Wed. Luncheon ($12.00) _____

Wed. Evening Banquet ($29.00) _____

Thurs. Luncheon ($12.00) _____

C. SPOUSE/GUEST

Name_____

Please include any meals your spouse/guest is planning to attend:

Tues. Luncheon ($11.00) _____

Tues. Buffet ($26.00) _____

Wed. Breakfast (Free) _____

Wed. Luncheon ($12.00) _____

Wed. Banquet ($29.00) _____

Thurs. Luncheon ($12.00) _____

D. **TOTAL PAYMENT DUE** _____

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NDWPCC or ND Water & Pollution Control Conference

E. PLEASE CHECK ALL THAT APPLY

Yes ☐ No ☐ Do you qualify as a water treatment or water distribution operator for a system serving 3,300 or less? This will determine eligibility for reimbursement.

Yes ☐ No ☐ Do you plan to participate in the golf tournament starting at 1:00 p.m. on Tuesday?
Your average score or handicap _____.
The golf course will be charging a green and golf cart fee.

Yes ☐ No ☐ Do you plan to participate in the field trips to Minot municipal facilities on Wednesday morning?
Transportation will be provided.

F. USE ONLY ONE NAME PER REGISTRATION
(Make copies if more are needed)
(PLEASE PRINT)

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Address_____

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To Be Used on Name Badge

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Fax Phone No. _____

Email Address_____

G. **FOR CONFERENCE USE ONLY:**

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Credit Card_____ **Charge** _____

Date_____ **Amount**_____

Paid ☐ **Entered** ☐ **Invoice #**_____

Conference Database ☐

2012 Meeting Schedule

Monday

7:30 p.m.	**Preconference Meeting** North Dakota Section of the American Water Works Association (NDAWWA) Executive Room

Tuesday

7:30 - 11:30 a.m.	**Water and Wastewater Operator Certification Examinations** North Dakota Department of Health Candlelite I & II Rooms
7:30 a.m.	**Officers Meeting** NDAWWA Executive Room
8:00 a.m.	**Officers Meeting** North Dakota Chapter of the American Public Works Association (NDCAPWA) Viking Room
8:00 a.m.	**Officers Meeting** North Dakota Water Environment Association (NDWEA) Norse Room
9:30 a.m.	**Officers Meeting** Joint Board of Directors of the North Dakota Water and Pollution Control Conference (NDWPCC), NDCAPWA, NDWEA and NDAWWA Viking Room
10:30 a.m.	**AWWA Committee Meetings** NDAWWA Executive Room
11:30 a.m.	**Business Meeting** NDWEA Grand Ballroom
1:30 - 4:30 p.m.	**Concurrent Sessions** Lower Banquet Center Candlelite Rooms Executive Room

Wednesday

9:00 a.m.	**North Dakota Operator Certification Advisory Committee Meeting** Lobby Lounge
12:00 noon	**Business Meeting** NDCAPWA Grand Ballroom
1:30 - 4:30 p.m.	**Concurrent Sessions** Lower Banquet Center Candlelite Rooms Executive Room

Thursday

7:30 a.m.	**Annual Public Works Directors and City Engineers Meeting** Lobby Lounge
8:00 - 11:30 a.m.	**Concurrent Sessions** Convention Center
12:00 noon	**Business Meetings** NDAWWA and NDWPCC Grand Ballroom

Future Conferences

2013 - GRAND FORKS, OCTOBER 22, 23 AND 24, ALERUS CENTER

2014 - FARGO, OCTOBER 14, 15 AND 16, HOLIDAY INN

2015 - BISMARCK, OCTOBER 6, 7 AND 8, RAMKOTA HOTEL

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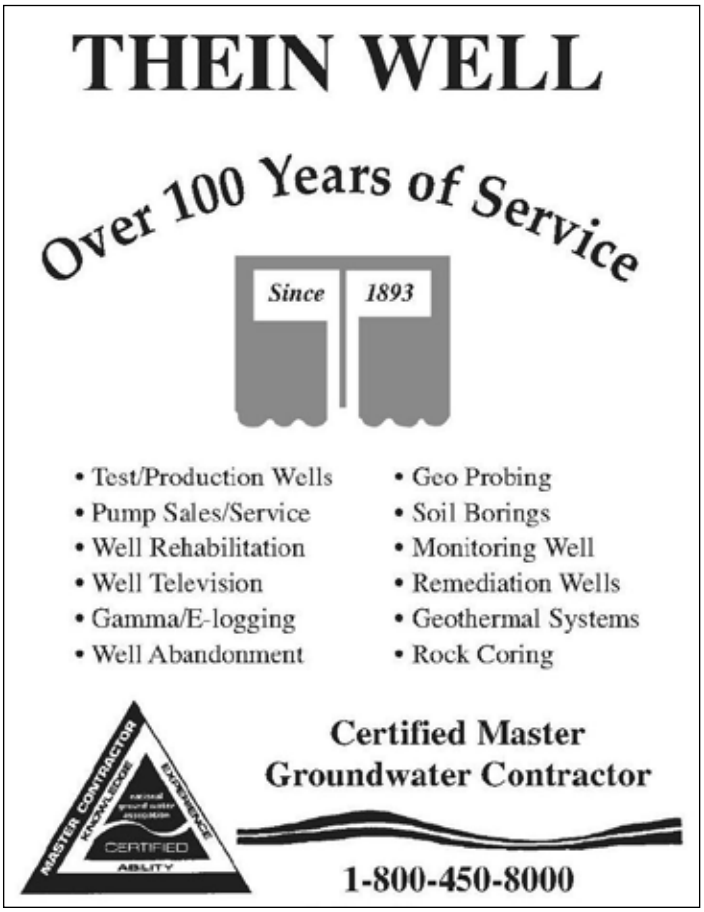
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701-282-6760

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TUESDAY, OCTOBER 16, 2012

AFTERNOON CONCURRENT SESSIONS

11:30 a.m.
Luncheon and Business Meeting, NDWEA
Grand Ballroom
President: Don Tucker, Presiding
Guest Speaker:

Welcome: Minot Mayor Curt Zimbelman
NDAWWA Chair: Tim Paustian

Session A

Executive Room of the Convention Center
Moderator: Eric Volk, Chair-Elect, NDAWWA

1:30 p.m. Title:	"Southwest Pipeline Project OMND Membrane WTP and Membrane Process Residual Challenges"
Speaker:	James Lennington, Project Manager, Bartlett & West
2:30 p.m. Title:	"Investigation of Pinhole Copper Corrosion in Household Plumbing"
Speaker:	Delvin DeBoer, Special Projects Engineer, AE2S
3:00 p.m.	Break, Grand Ballroom
3:30 p.m. Title:	"Keeping Track of Your Infrastructure"
Speaker:	Hazel Sletten, Water Plant Superintendent, City of Grand Forks
4:00 p.m. Title:	"Successful Operation of Nanofiltration Water Treatment Plants: Lessons Learned"
Speaker:	Steve Ahlschlager, Senior Project Engineer, Moore Engineering
4:30 p.m.	Adjourn
5:00 - 7:00 p.m.	Buffet Dinner, Grand Ballroom

Session B

Lower Banquet Center
Moderator: Jessica Wagner, Vice President, NDWEA

1:30 p.m. Title:	"Fixed Intergrated Treatment Technologies, An Innovation"
Speaker:	Tim Petz, Owner, Innovative Treatment Systems
2:30 p.m. Title:	"Combined Heat and Power Systems Using Biogas in WWTPs"
Speakers:	John Fisher, Senior Design Leader, SEH Tracy Ekola, Regional Practice Center Leader, SEH
3:00 p.m.	Break, Grand Ballroom
3:30 p.m. Title:	"Achieving Low Level Nitrogen and Phosphorus Effluent Concentrations in the Moorhead Wastewater Treatment Plant"
Speaker:	NDSU WEFTEC Design Team
4:00 p.m. Title:	To Be Determined
Speaker:	UND WEFTEC Design Team
4:30 p.m.	Adjourn

Session C

Candlelite I & II Rooms
Moderator: Dan Jonasson, President, NDCAPWA

1:30 p.m. Title:	"City of Minot Lift Station Repairs and Sewer Expansion"
Speakers:	Lance Meyer, City Engineer, City of Minot Mike Berg, Vice President, Apex Engineering Group Tim Paustian, Associate, Apex Engineering Group
2:30 p.m. Title:	"Impact of Climate Variability on Runoff"
Speaker:	Karen R. Ryberg, Statistician, U.S. Geological Survey
3:00 p.m.	Break, Grand Ballroom
3:30 p.m. Title:	"North Dakota Solid Waste and Recycling Association"
Speaker:	Diana Trussell, Vice President, NDSWRA
4:00 p.m. Title:	"Upper Missouri and Souris River Flooding 2011"
Speaker:	Gregg J. Wiche, Director, USGS Water Science Center
4:30 p.m.	Adjourn

WEDNESDAY, OCTOBER 17, 2012

AFTERNOON CONCURRENT SESSIONS

7:30 - 11:30 a.m. Tabletop Display Program, Convention Center
8:00 a.m. - 10:00 a.m. Free Breakfast
Grand Ballroom

11:45 Luncheon and Business Meeting, NDCAPWA
Grand Ballroom
President: Dan Jonasson, Presiding
Guest Speaker: Brian Van Norman, Director of Chapter Relations, APWA

Session A

Executive Room of the Convention Center
Moderator: Nancy Huether, Trustee, NDAWWA

1:30 p.m. Title:	No Session
Speaker:	
2:30 p.m. Title:	"Chemically Cleaning Distribution Systems"
Speaker:	Scott Kinsella, Branch Manager, Hawkins, Inc.
3:00 p.m.	Break
3:30 p.m. Title:	"Sustainable Communities in North Dakota"
Speaker:	Brock Storrusten, Branch Manager, Moore Engineering
4:30 p.m.	Adjourn
5:30 p.m.	Social Hour, Grand Ballroom
6:30 p.m.	Banquet: Convention Center Invocation: Terry Rust Master of Ceremonies: Entertainment:

Session B

Lower Banquet Center
Moderator: Wei Lin, President-Elect, NDWEA

1:30 p.m. Title:	"Wastewater Disposal Challenges in Western ND"
Speakers:	Panel Discussion
2:30 p.m. Title:	"Membrane Thickening Aerobic Digestion Process"
Speakers:	Bryen Woo, Project Manager, Ovivo USA, LLC Karla Olson, Associate/Project Manager, Apex Engineering Group
3:00 p.m.	Break
3:30 p.m. Title:	"Industrial Pretreatment"
Speakers:	Panel Discussion
4:30 p.m.	Adjourn

Session C

Candlelite I & II Rooms
Moderator: Walt Smith, Director, NDCAPWA

1:30 p.m. Title:	"Challenges and Opportunities in Permit Implementation and MS4 Management"
Speakers:	Panel Discussion
2:30 p.m. Title:	"Urban Forestry - The Green Infrastructure"
Speaker:	W.L. Jackson Bird, City Forester, City of Bismarck
3:00 p.m.	Break
3:30 p.m. Title:	"Fargo-Moorhead Flood Diversion Project Update"
Speaker:	To Be Determined
4:30 p.m.	Adjourn

THURSDAY, OCTOBER 18, 2012

MORNING CONCURRENT SESSIONS

Session A

Norse Room of the Convention Center
Moderator: , NDAWWA

8:00 a.m.	Title:	"Wastewater Collection"
	Speakers:	Panel Discussion
9:00 a.m.	Title:	"Western Area Water Supply Project Update"
	Speakers:	Cory Chorne, Project Manager, AE2S David Johnson, Operations Manager, AE2S
9:30 a.m.	Title:	"Water Distribution System Modeling for Improved Water Quality"
	Speaker:	Tom Welle, President, Apex Engineering Group
10:00 a.m.		Break
10:30 a.m.	Title:	"Enforcement Response Policy and Tracking Tool"
	Speaker:	Larry Thelen, Drinking Water Program Administrator, NDDH
11:00 a.m.	Title:	"Transformation of a Lime Softening Treatment into a Membrane Treatment Process"
	Speaker:	James Sepp, Senior Project Engineer, Moore Engineering
11:30 a.m.		Adjourn

Session B

Viking Room of the Convention Center
Moderator: Harvey Gullicks, Faculty Advisor, NDWEA

8:00 a.m.	Title:	"Nutrient Removal/Criteria Development"
	Speakers:	Panel Discussion
9:00 a.m.	Title:	"Phytoremediation of Contaminated Water"
	Speaker:	Tim Kenyon, Principal, Legette, Brashears & Graham, Inc.
9:30 a.m.	Title:	"Dickinson Sewer System Planning"
	Speaker:	Mike Berg, Vice President, Apex Engineering Group"
10:00 a.m.		Break
10:30 a.m.	Title:	"Williston Wastewater Treatment Facility Update-Domestic Wastewater Needs in an Oil Boom"
	Speaker:	Scott Schaefer, Wastewater Group Manager, AE2S
11:00 a.m.	Title:	"EPA Energy Star Rating of Municipal Facilities"
	Speaker:	Don Tucker, Wastewater Treatment Asset Manager, City of Grand Forks
11:30 a.m.		Adjourn

Session C

Executive Room of the Convention Center
Moderator: Lance Meyer, Director, NDCAPWA

8:00 a.m.	Title :	"LiDAR Survey-Scanning the Future"
	Speaker:	Pete Eade, Lead Engineering Tech, Bartlett & West
9:00 a.m.	Title:	"Storm Water Pollution Prevention Plan"
	Speaker:	Dallas Grossman, Environmental Engineer, NDDH
9:30 a.m.	Title:	"Sediment Dynamics on the Red River and its Tributaries near Fargo, ND"
	Speaker:	Joel Galloway, U.S. Geological Survey
10:00 a.m.		Break
10:30 a.m.	Title:	"Storm Water Lift Station Assessment and Long-term Planning"
	Speaker:	Joel Paulsen, Municipal Group Leader, Kadrmas, Lee & Jackson John Wirries, Project Engineer, Kadrmas, Lee & Jackson
11:00 a.m.	Title:	"NDPDES Update"
	Speaker:	Karl Rockeman, NDPDES Program Manager, NDDH
11:30 a.m.		Adjourn

12:00 p.m. Joint Luncheon and Business Meetings, NDAWWA and NDWPCC
NDAWWA Chair: Tim Paustian and NDWPCC President: Karla Olson , Presiding
Guest Speaker: Gene Kooutz, Vice-President, AWWA, Lemoyne, PA

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CONFERENCE HISTORY

Conference	Host City	President	President's Residence
2012	Minot	Karla Olson	Fargo
2011	Bismarck	Chuck Abel	Bismarck
2010	Fargo	Miranda Kleven	Grand Forks
2009	Minot	Lisa Ansley	Bismarck
2008	Bismarck	Terry Rust	West Fargo
2007	Fargo	Mark Blonigen	Fargo
2006	Minot	Tom Welle	Moorhead
2005	Bismarck	Jack Long	Bismarck
2004	Fargo	Rick Gillund	Enderlin
2003	Minot	Mike Schneider	Bismarck
2002	Bismarck	Pat Denne	West Fargo
2001	Fargo	Charles Jaszkowiak	Bismarck
2000	Dickinson	Randal Loeslie	Thompson
1999	Minot	Paul Lacina	Valley City
1998	Bismarck	Mel Bullinger	Bismarck
1997	Fargo	Wayne Tunseth	Mayville
1996	Minot	Don Olafson	Valley City
1995	Bismarck	Waide Kritsky	Jamestown
1994	Fargo	Byron Thronson	Minot
1993	Minot	Joe Manning	Fargo
1992	Bismarck	Tom Little	Mandan
1991	Fargo	Richard Wanner	Bismarck
1990	Williston	Richard Resell	Williston
1989	Minot	Dwight Wurzbacher	Grand Forks
1988	Grand Forks	Phil Furaus	Harvey
1987	Dickinson	Dale Hanson	Valley City
1986	Bismarck	Dan Boyce	Grand Forks
1985	Fargo	Lyle Weeks	Minot
1984	Williston	Kenneth Reynolds	Bismarck
1983	Minot	Dale Townsend	Carrington
1982	Mandan	Peter Bilstad	Fargo
1981	Jamestown	Don Cuskelly	Dickinson
1980	Grand Forks	Don Erikson	Watford City
1979	Bismarck	Ken Skuza	Fargo
1978	Dickinson	Gerald Zander	Mandan
1977	Fargo	Keith Cornell	Grand Forks
1976	Minot	Peter Mellmer	Bismarck
1975	Mandan	Lyle Mitzel	Wahpeton
1974	Grand Forks	Daniel Reiter	Minot
1973	Jamestown	Russell Kain	Neche
1972	Williston	John Muus	Grand Forks
1971	Fargo	Donald Wenaas	Jamestown
1970	Minot	Harry Hanson	Bismarck
1969	Bismarck	Clarence Johnson	Garrison
1968	Dickinson	Bevan Shaw	Williston
1967	Grand Forks	A.E. Forsman	Grand Forks
1966	Mandan	Alvin Mickelson	Casselton
1965	Fargo	Ken Ruby	Fargo
1964	Minot	Al Swanson	Jamestown
1963	Valley City	Carl Torkelson	Grafton
1962	Williston	Glenn Berg	Minot
1961	Jamestown	Richard Fuller	West Fargo
1960	Bismarck	Frank Orthmeyer	Grand Forks
1959	Grand Forks	Herbert Arnold	Williston
1958	Dickinson	L.W. Veigel	Dickinson
1957	Fargo	Erik Peterson	Jamestown
1956	Mandan	Edwin Ostlie	Grand Forks
1955	Williston	Paul Hays	Minot
1954	Grand Forks	C.M. Hagen	Oakes
1953	Minot	C.T. Stephenson	Jamestown
1952	Jamestown	Ed Booth	Bismarck
1951	Fargo	H.H. Behlmer	Fargo
1950	Bismarck	A.F. Hulteng	Grand Forks
1949	Dickinson	George Toman	Mandan
1948	Minot	R.J. Lockner	Cooperstown
1947	Grand Forks	John Kleven	Grand Forks
1946	Mandan	S.K. Svenkeson	Minot
1945	Fargo	F.W. Pinney	Fargo
1944	Bismarck	Dave MacDonald	Bismarck
1943	Grand Forks	Joe Morrissey	Jamestown
1942	Williston	Elmer Pearson	Minot
1941	Jamestown	R.M. Jenson	Grand Forks
1940	Wahpeton	William Nordley	Edgeley
1939	Dickinson	William Yegen	Bismarck
1938	Minot	S.S. Calvelage	Jamestown
1937	Mandan	Ora Ayliffe	Fargo
1936	Fargo	S.P. Ravnos	Mandan
1935	Grand Forks	H.T. Hintgen	Wahpeton
1934	Bismarck	W.H. Robinson	Williston
1933	Jamestown	O.N. Bergman	Valley City
1932	Minot	E.L. Lium	Grand Forks
1931	Fargo	W.P. Tarbell	Fargo
1930	Grand Forks	E.J. Thomas	Minot
1929	Bismarck	A.L. Bavone	Bismarck

National Representatives

2012 North Dakota Water and Pollution Control Conference

Brian Van Norman
Director of Chapter Relations
American Public Works Association

Brian Van Norman, CAE, is the director of Chapter Relations for the American Public Works Association. In this position, Brian oversees the resources to support the association's 63 chapters to strengthen their capacity development. Van Norman often visits chapters to facilitate strategic and leadership training programs and to provide guidance and assistance in supporting chapters with their goals.

Brian has more than 15 years of experience in association and not-for-profit management. He has served in leadership positions with the American Academy of Family Physicians and the University of Kansas. Van Norman served as the Executive Director for Hotel Brokers International, the world's largest professional membership association for hospitality real estate brokers. He also served three years as the executive director for Children's Miracle Network of Greater Kansas City, having overseen fundraising efforts to raise more than $3.5 million for pediatric health care services.

Van Norman holds a Bachelor of Arts degree in Organizational Management and Marketing from Southern Nazarene University in Bethany, Oklahoma. He is one of 3,500 individuals to have obtained his Certified Association Executive designation through the American Society of Association Executives. He is a recipient of the Professional Excellence Award presented by the Kansas City Society of Association Executives (KCSAE) and currently serves as the KCSAE President.

Gene Koontz
Vice President (2011-2013)
American Water Works Association

Gene Koontz has been with Gannett Fleming, Inc. for 35 years. He currently serves as senior vice president overseeing the firm's environmental group.

Gene has been a member of AWWA since 1982 and has been a very active volunteer and leader in the Pennsylvania Section. He has held many previous positions including Section Chair, Chair of the Water Quality Committee, member of the Water Utility Council and Chair of the Program Committee. On the national level, Gene has served on three separate Water Research Foundation Project Advisory Committees.

Outside of the professional organizations that Gene has been actively involved in, he has also served in many capacities within the community. He has held a multitude of roles in youth sports from coach up to president and chairman of various baseball, softball and basketball programs.

Gene received his Bachelor of Science degree from Lehigh University. Gene lives in Lemoyne, Pennsylvania with his wife Barbara. They are the proud parents of Adam and Sarah.

NDWPCC JOINT BOARD MEETING MINUTES

May 16, 2012
Mandan, ND

A meeting of the Joint Board of Directors of the North Dakota Water and Pollution Control Conference (NDWPCC); North Dakota Water Environment Association (NDWEA); North Dakota Chapter of the American Public Works Association (NDCAPWA); and North Dakota Section of the American Water Works Association (NDAWWA) was held on May 16, 2012, in the Santa Maria Room of the Seven Seas Inn, Mandan, ND. The following board members and guests were present: Chuck Abel, Lisa Ansley, Terry Boehm, Mike Brisben, Tracy Eslinger, Bill Gefroh, Rick Gillund, Jeff Heintz, Jeff Hruby, Nancy Huether, Dan Jonasson, Wei Lin, Lance Meyer, Karla Olson, Tim Paustian, Meredith Quinn, Terry Rust, Dean Sletten, Jason Sorenson, Larry Thelen, Don Tucker, Eric Volk, Jessica Wagner, Greg Wavra, Rachel Wolff and Chad Zander.

The meeting was called to order at 10:36 a.m. by NDWPCC President Karla Olson. Copies of the meeting agenda and NDWPCC January 1-April 30, 2012 financial report were provided to those in attendance.

President Olson called for a motion to dispense with the reading of the minutes from the January 18, 2012 Joint Board Meeting and approve the minutes mailed to each board member. Terry Rust so moved, Rick Gillund seconded and the motion carried.

President Olson next called for the Treasurer's Report. Mike Brisben reported that so far in 2012 the NDWPCC had a net loss of $9,678.20 and total assets of $86,935.65. President Olson asked for any discussion. Lisa Ansley asked for clarification on $21,469.00 of undeposited funds. Mr. Brisben noted that the undeposited funds included a May 15, 2012 deposit from the Bank of North Dakota for operator expense reimbursement payments. President Olson asked if there was any further discussion. Hearing none, President Olson called for a motion to accept the Treasurer's report. Chuck Abel so moved, Dean Sletten seconded and the motion carried.

Moving on to old business, President Olson requested that a list of topics and presenters be sent to Mr. Brisben by June 1, 2012. Terry Rust suggested topics on oil field activity and flood recovery and that an update of the state's perspective on fracking water and man camps would be of interest.

Meredith Quinn noted that infrastructure demographics and impact areas would be well received. President Olson indicated that NDSU was looking at the impact of population increase in Dickinson and that she would inquire if NDSU would be willing to present. Tracy Eslinger noted that Lynn Helms would be a good contact for oil-related topics and that he would get Mr. Brisben the contact information. Mr. Eslinger indicated Moore Engineering would be willing to present case studies on Enderlin's switch from lime softening to membranes and West Fargo's well rehab and membrane operation and cleaning. Jeff Heintz suggested an urban forestry presentation and will follow up with the Bismarck City Forester. Dan Jonasson recommended that Jerry Volk with the North Dakota Solid Waste Association be considered as a possible presenter. Mr. Heintz indicated that Houston Engineering could be approached regarding Bismarck's landfill permit renewal and new ground water testing program. Mr. Rust noted that a Corp of Engineers update on Devils Lake flooding would be of interest. President Olson tabled further discussion and asked that topics and contact information be forwarded to Mr. Brisben. Mr. Brisben indicated that presenter, vendor and sponsor packages would be mailied in early June.

President Olson asked if there was any other old business. Hearing none, President Olson called for a report on the Minot local arrangement committee and convention center meetings. Mr. Brisben reported that the meetings were held Tuesday May 8, 2012 at the Minot Public Works Building and the Grand International. Activities being considered for the October conference include a casino night, spouses/guest luncheon and tours of the Minot Water Treatment Plant and high service pumps. Mr.

Jonasson added that nine holes would be opened in July allowing for the annual golf outing. Mr. Brisben noted that a member of the Minot Convention and Visitors Bureau (CVB) sat in on the local arrangement committee meeting and offered several ideas for the conference activities. Mr. Brisben also stated that 324 rooms are been secured and that he would continue to work with Minot CVB as new hotels opened.

Next, President Olson called for a report on the spring water and wastewater training program. Mr. Brisben reported that four water and two wastewater sessions were offered at the 52nd Annual Water and Wastewater Operator Training Sessions with more than 300 operators attending.

Mr. Brisben also noted that 229 exams were written with a passage rate of 70 percent.

Next, President Olson reported that tentative dates of 10/17-19/2017 in Fargo and 9/25-27/2018 or 10/30-11/1/2018 in Bismarck had been reserved. Mr. Brisben noted that the dates did not conflict with the WEFTEC schedule. Ms. Quinn expressed concern with the 9/25- 27/2018 dates overlapping with the Minnesota AWWA annual conference and Lisa Ansley inquired as to whether the 10/30-11/1/2018 dates were too late. Mr. Brisben noted that the earlier date would make it more difficult to organize. Mr. Rust asked if a motion was needed to explore other options. Mr. Heintz asked if there were other convention sites in Bismarck-Mandan. Mr. Brisben noted that, other than the civic center, the other sites would not support the vendor program and the three concurrent sessions. Larry Thelen moved to reserve the 10/30-11/1/2018 dates, Greg Wavra seconded and the motion carried. President Olson asked that further options be explored and that they be added to the agenda for the next board meeting.

Next, President Olson called for discussion on the 2012 exhibitor program and poster competition. Mr. Brisben reminded members that previous vendor programs allowed for only 45 to 50 booths. Tim Paustian indicated that NDAWWA members discussed the poster competition and a student/YP social during their meeting and that they supported both for the conference in Minot. Wei Lin felt that graduate students would be able to attend, but it would be difficult for the undergrads. Mr. Paustian reminded the board that young professionals were also part of the group. Further discussion included use of the pool area, having the poster competition in the Grand Ballroom and having the submitters available at a designated time during the breaks. Mr. Brisben agreed to explore more options leading up to the conference.

Next, President Olson invited Jeff Hruby from the North Dakota Chapter of the North America Stormwater and Erosion Control Association (NASECA-ND) to address the joint boards. Mr. Hruby indicated that the North Dakota Chapter was newly formed with officers elected in April. Mr. Hruby then offered their technical support and noted that NASECA-ND would be willing to provide topics and presenters for up to a half day during the fall conference.

Ms. Ansley noted that the new board would be a good fit to the current group and inquired as to whether they could be invited to join. Mr. Brisben stated there was nothing in the NDWPCC bylaws that would not allow a new member and, depending on the thoughts of the other boards, it could be brought to a vote at a future meeting. It was also noted that adding a stormwater track could increase attendance at the annual conference. Mr. Paustian asked how many members would be joining. Mr. Hruby estimated 30 to 100 at this time. Mr. Hruby thanked President Olson for allowing him to address the boards. President Olson called for any other new business.

Hearing none, President Olson called for a motion to adjourn. Dan Jonasson so moved, Terry Rust seconded and the motion carried.

The meeting adjourned at 11:19 a.m. NDCAPWA can be thanked for the refreshments and the noon luncheon.

Respectfully submitted,
Mike Brisben
Secretary/Treasurer

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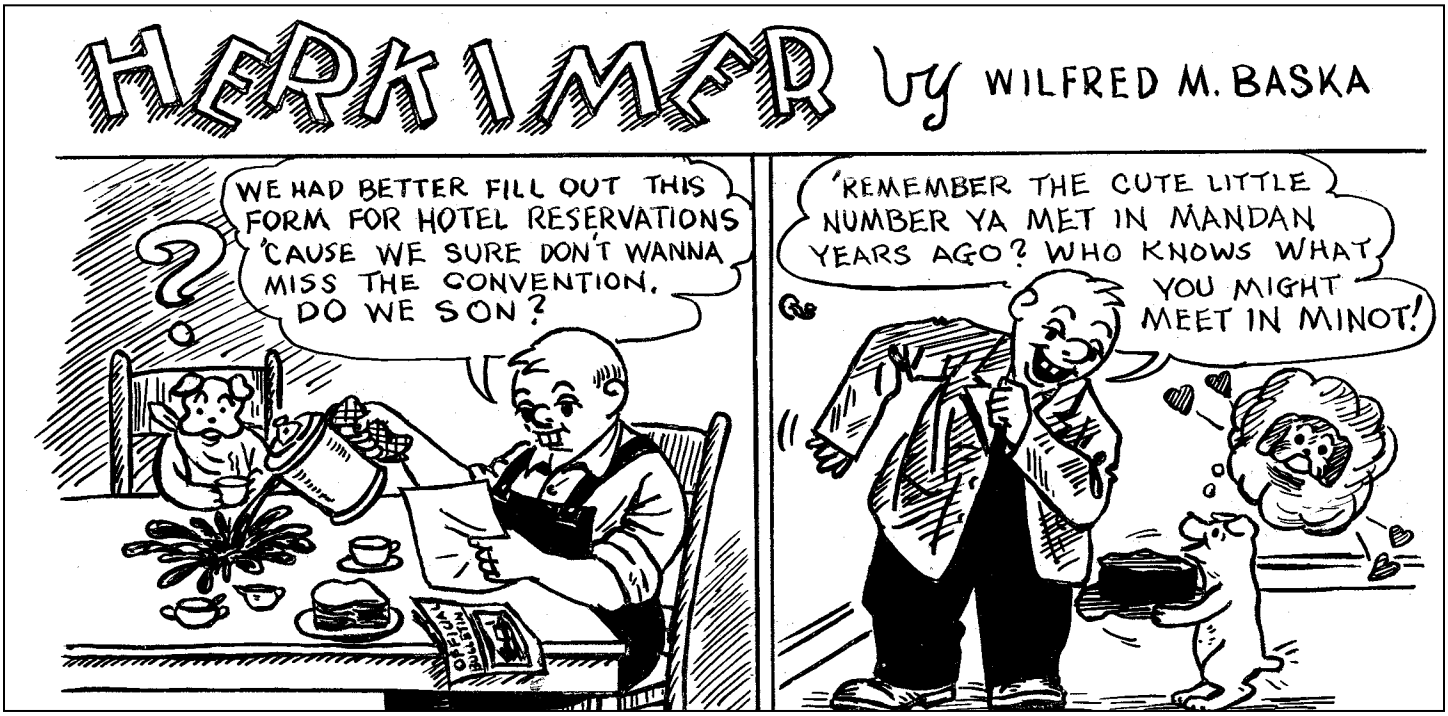

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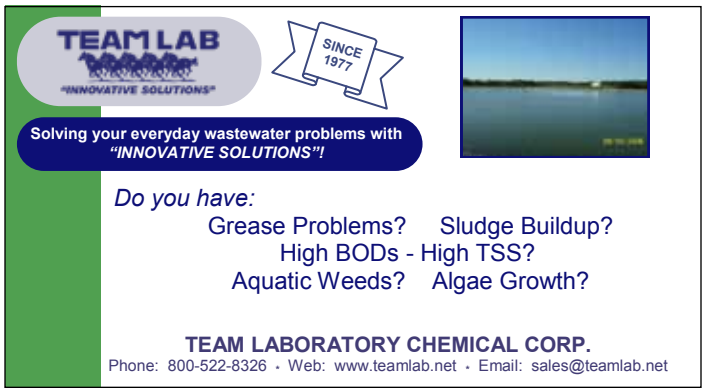

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2012 - Minot, October 16, 17 and 18, Grand International Inn

2013 - Grand Forks, October 22, 23 and 24 Alerus Center

2014 - Fargo, October 14, 15 and 16 Holiday Inn

2015 - Bismarck, October 6, 7 and 8 Ramkota Hotel

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darin.schaeffer@bartwest.com

Bartlett & West creates value for our clients through a portfolio of professional services, including engineering, field services, landscape architecture and data management. We take our purpose seriously: to lead our communities toward a better tomorrow. Our people focus on understanding clients' needs, accessibility and responsiveness, integrity, quality and proactive communication. We've built our business on these values and for every employee, this is service. The Bartlett & West Way.

Fischer, Harris & Associates Joe Zauner
5865 Neal Ave N Ste 335 651-274-8506
Stillwater, MN 55082 FAX 630-377-3306
joe@fischer-harris.com

Fisher-Harris and Associates is a manufacturers' representative company for the Midwest Region that represents companies EBAA Iron, Smith-Blair, Team Industrial Valve Insertion, Adaptor Inc., Vent-O-Mat/RF Valves, Noreva Valves, Drainage & Water Solutions, Old Castle Precast and Engineered Fluid, Inc.

Tonka Equipment Co. T. J. Stroebl
13305 Watertower Cir 763-559-2837
Plymouth, MN 55441 FAX 763-559-1979
czehrer@tonkawater.com

Tonka Equipment Company creates customized water treatment systems for municipalities across the United States and abroad. Our designs provide engineers cost-effective solutions for the most challenging surface and groundwater problems. Tonka's Simul-Wash™ combined air/water backwash system provides superior media cleaning while reducing backwash water volume by 50 percent. Tonka provides solutions for iron, manganese, arsenic, radium, nitrate and organics removal through our broad range of products.

Stantec Consulting Services, Inc. Chip Robinson
2335 W Hwy 36 651-636-4600
St. Paul, MN 55113 FAX 651-636-1311
charles.robinson@stantec.com

Stantec provides professional consulting services in planning, engineering, construction and project management for infrastructure and facilities projects. At the forefront of responsible use and management of water sources and supply infrastructure, Stantec is committed to delivering efficient, sustainable water and wastewater solutions for communities of all sizes. Our services are provided on projects around the world through approximately 11,000 employees operating out of more than 170 locations in North America and four locations internationally. Stantec is One Team providing Integrated Solutions.

Larson Data Communications, Inc. Mike Larson
305 N Lawler St 605-996-5521
Mitchell, SD 57301 FAX 605-996-5642
mike.larson@larsondata.com

MDS Full Service Partner for ND, SD, MN, IA, NE - Industrial Wireless Data Networking Products, RF Engineering Services & Consulting and Certified Support for Critical Infrastructure Wireless applications. See us for Wireless Network Area Coverage & Path Profile Analysis, Point-to-Point, Point-to-Multipoint, Multiple Address Station (MAS), Mobile Data, and Mobile VPN Systems. MDS is the most technologically advanced, most reliable and most widely used industrial data radio product line available. Our customers and the customers of our Value Added Resellers and Integration Partners are among the best wireless data connected and supported companies in the world.

Prinsco, Inc. Mike O'Neill
1717 16th St NE 701-205-5168
Willmar, MN 56201 FAX 320-222-6820
mikeo@prinsco.com

Pollution Control Systems Mark Vogt
102 ½ E 4th St 319-472-4082
Vinton, IA 52349 FAX 319-472-5898
mark@qwestoffice.net

Supplier of AWWA-bottled water and wastewater tanks, SS or glass-lined, large HP flood control pumps, and Pre-Engineered wastewater treatment.

Northern Pipe Products Paul Tupa
1302 39th St NW 701-282-7655
Fargo, ND 58102 FAX 701-282-2887

HD Supply Waterworks Justin Hochhalter
407 72nd St SE 952-974-8100
Minot, ND 58701 FAX 952-937-8065
Justin.hochhalter@hdsupply.com

HD Supply Waterworks is a full line waterworks products distributor. We have 240 branches nationwide and just opened our new location in Minot. We are excited to be a part of the business community and located in the great state of North Dakota.

Fargo Water Equipment Jack Hendrickson
4557 15th Ave N 701-237-0222
Fargo, ND 58102 FAX 701-237-9609
jack@FGOH20.com

We provide water and sewer products and work with Underground Solutions doing fusible PVC piping systems.

TONKA WATER TREATMENT SYSTEMS
Phone: (763) 559-2837
Fax: (763) 559-1979
E-Mail: tonka@tonkawater.com
Website: www.tonkawater.com
TONKA EQUIPMENT COMPANY
P.O. BOX 41126
13305 WATERTOWER CIRCLE • PLYMOUTH, MN 55441

Membership Application

Step 1 Decide which type of membership works best for you (Individual or Group)

INDIVIDUAL MEMBERSHIP

Available to any official or employee of a governmental agency, manufacturer, supplier, contractor, or consulting firm that is actively engaged in the field of public works. ❑ $164 USD/CAN

❑ *Never been a member? Get your FIRST YEAR of individual membership at HALF-PRICE! (Just $82 USD/CAN each!)*

GROUP MEMBERSHIPS

Groups will receive one consolidated renewal notice with a member roster attached. Members may be added or dropped from the roster throughout the year, if necessary.

Public Agency Group Membership

Available to any federal, provincial, state, local or other public agency concerned with public works. The number of individual memberships and the annual fee for an agency are based on the population served by the agency. When joining as an agency, each member saves $26 USD/CAN on annual membership dues.

- **State or Provincial Agencies**—Number of rostered members and annual dues for the group would be determined using the "Population Served" row representing 10% of total state population. (Please also mark applicable category and provide names and contact information for all those who should be included on the group roster.)
- **County Agencies**—Number of rostered members and annual dues for the group would be determined using the "Population Served" row representing 50% of total county population. (Please also mark applicable category and provide names and contact information for all those who should be included on the group roster.)
- **Special Districts**—Number of rostered members and annual dues for the Group would be determined using the "Population Served" row representing 20% of total district population. (Please also mark applicable category and provide names and contact information for all those who should be included on the group roster.)
- **All others**—Refer to row representing total population served by the agency. (Mark the category representing total population served by the agency and provide names and contact information for all those who should be included on the group roster).

Population Served	Number of Rostered Members Covered*	Annual Dues USD/CAN
❑ 0 – 10,000	2	$ 276
❑ 10,001 – 25,000	4	$ 552
❑ 25,001 – 50,000	6	$ 828
❑ 50,001 – 100,000	10	$1380
❑ 100,001 – 300,000	16	$2208
❑ 300,001 – 500,000	20	$2760
❑ 500,001 – 1,000,000	26	$3588
❑ More than 1,000,000	30	$4140
❑ Federal Agency	50	$6900

Corporate Group Membership

Available to any non-governmental entity that furnishes public works services or products, including privately held or incorporated utilities. There are three levels of corporate group membership: Heritage, Prestige, and Crown. Please select a membership level and provide names and contact information for all those who should be included on the group roster.

Corporate Membership Level	Number of Rostered Members Covered*	Annual Dues USD/CAN
❑ Heritage	2	$ 403
❑ Prestige	10	$1683
❑ Crown	40	$7991

***You may designate additional members for $138 USD/CAN each.**

Fee schedule effective through December 31, 2012

Step 2 Dues, Member Information, and Payment

Membership is for one year and will begin upon receipt of dues payment. Purchase orders are acceptable, but members will not receive benefits until receipt of payment. MasterCard, Visa and American Express are accepted – please provide credit card number, expiration date, and cardholder name. If billing address is outside North Dakota, please contact APWA for information regarding chapter dues.

APWA membership dues are not deductible as a charitable contribution but may be deductible as an ordinary business expense, subject to IRS limits. APWA does not designate the use of membership dues for lobbying or advocacy efforts, however eight percent (8%) of our total operating budget is allocated towards advocacy-related programs, including staff salaries. Please consult your tax professional with regards to eligible ordinary business expenses.

Send remittance to: American Public Works Association, PO Box 802296, Kansas City, MO 64180-2296
(Credit card payments may be faxed to: 816-472-1905 or 816-472-1610)

Include the full name, job title, company/agency, mailing address, phone, fax, and e-mail (if available) for each person membership is to cover.

Questions? Contact a membership specialist at 800-848-APWA or membership@apwa.net.

APWA Headquarters: 2345 Grand Blvd, Suite 700, Kansas City, MO 64108-2625

Drinking Water Program Directory		
Program Administrator	Larry Thelen	701-328-5257
Acrylamide and Epichlorohydrin Rule	Gary Stefanovsky	701-328-5287
Arsenic Rule	Katie Luther	701-328-5258
Consumer Confidence Reports	LeeAnn Tillotson	701-328-5293
Disinfectant/Disinfection Byproducts Rule (TTHM, HAA5) Stage 1 and Stage 2 Rule	Lydia Fewless	701-328-5221
Filter and Backwash Recycle Rule	Gary Stefanovsky	701-328-5287
Fluoride Addition	Katie Luther	701-328-5258
Groundwater Rule	Gary Stefanovsky	701-328-5287
Inspections: Northeast	Gregg Stewart	701-328-6621
Inspections: Northwest	Justin Feld	701-328-6624
Inspections: Southeast	Rachel Wolff	701-328-6375
Inspections: Southwest	Bob Markhouse	701-328-6623
Inspections: Northwest/Southwest	Shawn Heinle	701-328-6627 or 701-328-5269 (GSB)
Lead and Copper Rule	Katie Luther	701-328-5258
Surface Water Treatment Rule: Interim Enhanced, Long Term 1 Enhanced, Long Term 2 Enhanced	Greg Wavra	701-328-5224
Microscopic Particulate Analysis (MPA)	Gary Stefanovsky	701-328-5287
Nitrate/Nitrite Program	Katie Luther	701-328-5258
Operator Certification	Craig Bartholomay	701-328-6626
Operator Expense Reimbursement/Public Notice Rule	LeeAnn Tillotson	701-328-5293
Operator Training	Mike Brisben	701-328-6622
Pesticides (SOCs)	Lydia Fewless	701-328-5221
Primary and Secondary Inorganics	Lydia Fewless	701-328-5221
Public Water System Updates (changes to source, treatment, contact, etc.)	Tammy Lamphear	701-328-5295
Radionuclide Rule: Gross Alpha, Total Radium, Uranium	Lydia Fewless	701-328-5221
Total Coliform Rule	Jeni Walsh	701-328-5231
Unregulated Contaminant Monitoring	LeeAnn Tillotson	701-328-5293
Volatile Organic Chemicals (VOCs)	Lydia Fewless	701-328-5221
Central Phone: 701-328-5211		**Fax: 701-328-5200**

North Dakota Pollutant Discharge Elimination System Program Directory		
Program Administrator	Karl Rockeman	701-328-5225
Animal Feeding Operations	Brady Espe Jeremy Lang	701-328-5228 701-328-5219
Biosolids	Marty Haroldson Karl Rockeman	701-328-5234 701-328-5225
Construction Stormwater	Dallas Grossman Luci Snowden Amanda Cross	701-328-5242 701-328-5239 701-328-5244
Dewatering and Hydrostatic Testing	Marty Haroldson	701-328-5234
Discharge Monitoring Reports (DMRs)	Curt Steier Marty Haroldson Jeff Roerick	701-328-5260 701-328-5234 701-328-5240
DMR Quality Assurance (QA) Study	Marty Haroldson	701-328-5234
Industrial Pretreatment	Jeff Roerick	701-328-5240
Industrial Stormwater	Dallas Grossman Luci Snowden Amanda Cross	701-328-5242 701-328-5239 701-328-5244
Inspections	All Staff	701-328-5210
Lagoon Overflows/Releases/Spills	All Staff	701-328-5210
MS4 Stormwater	Dallas Grossman Luci Snowden Amanda Cross	701-328-5242 701-328-5239 701-328-5244
Public Notices/NDPDES Permits	Curt Steier	701-328-5260
Septic Pumper	Marty Haroldson	701-328-5234
Wastewater Discharge Approvals	Curt Steier Marty Haroldson Jeff Roerick	701-328-5260 701-328-5234 701-328-5240
Central Phone: 701-328-5210		**Fax: 701-328-5200**

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