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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.

Article II of the Constitution of the North Dakota Water and Pollution Control Conference
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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 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.
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.

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, there is 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
- 100+ dozers, loaders, backhoes, skid-steer loaders
- 40+ pumps

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.
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)

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.

- 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
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

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**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

---

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
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(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.

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.

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.

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)

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.

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.”
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)
Save the Date

27th Annual Water Expo
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President’s Letter

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
North Dakota Water and Pollution Control Conference

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#### North Dakota Chapter of the American Public Works Association

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OFFICIAL BULLETIN, July-September 2012
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.

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.

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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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 OEL is exceeded if the calculated value exceeds either 0.080 milligrams per liter (mg/L) for TTHM or 0.060 mg/L for HAA5. 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.

The formula is:

\[
OEL = \frac{\text{sum of 2 previous quarters results} + (2 \times \text{current quarter results})}{4}
\]

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.

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

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<tr>
<th>SYSTEM NAME:</th>
<th>PWSID ID:</th>
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<table>
<thead>
<tr>
<th>Year</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>First, 2013</th>
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<tbody>
<tr>
<td></td>
<td>TTHM</td>
<td>LRAA</td>
<td>TTHM</td>
<td>LRAA</td>
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<tr>
<td></td>
<td></td>
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<td>TTHM</td>
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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).

---

**A Spreadsheet for Calculating Locational Running Annual Averages and OEL Exceedances**

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

---

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

**SYSTEM NAME:**

**PWSID ID:**
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](http://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](mailto:lfewless@nd.gov) or by phone 701-328-5221.

### Total Haloacetic Acids Five (HAA5) – Stage 2 LRAA and OEL Calculations

**SYSTEM NAME:**

**PWSID ID:**

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<th>Year</th>
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<th>LRAA</th>
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Total Haloacetic Acids Five (HAA5) – Stage 2 LRAA and OEL Calculations

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<tr>
<td>Wednesday</td>
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<tr>
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## SPOUSE/GUEST PROGRAM

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<th>Day</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>11:00 a.m. - 1:30 p.m.</td>
<td>A free spouse/guest program Wednesday October 17, will include an 11:00 a.m. luncheon and 12:30 p.m. tour</td>
</tr>
</tbody>
</table>

## MEALS

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>11:30 a.m.</td>
<td>Grand Ballroom</td>
</tr>
<tr>
<td>Tuesday</td>
<td>5:00 p.m. - 7:00 p.m.</td>
<td>Grand Ballroom</td>
</tr>
<tr>
<td>Wednesday</td>
<td>7:30 a.m. - 11:30 a.m.</td>
<td>Candlelite I &amp; II</td>
</tr>
<tr>
<td>Wednesday</td>
<td>8:00 a.m. - 10:00 a.m.</td>
<td>Convention Center</td>
</tr>
<tr>
<td>Thursday</td>
<td>12:00 noon</td>
<td>Convention Center</td>
</tr>
</tbody>
</table>

## WATER AND WASTEWATER OPERATOR CERTIFICATION EXAMINATIONS

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>7:30 a.m. - 11:30 a.m.</td>
<td>Candlelite I &amp; II</td>
</tr>
</tbody>
</table>

## TABLETOP DISPLAY PROGRAM

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>8:30 a.m. - 5:00 p.m.</td>
<td>Convention Center</td>
</tr>
<tr>
<td>Tuesday</td>
<td>7:00 p.m. - 9:00 p.m.</td>
<td>Convention Center</td>
</tr>
<tr>
<td>Wednesday</td>
<td>7:00 a.m. - 7:30 a.m.</td>
<td>Convention Center</td>
</tr>
<tr>
<td>Wednesday</td>
<td>7:30 a.m. to 11:30 a.m.</td>
<td>Convention Center</td>
</tr>
</tbody>
</table>

## GOLF TOURNAMENT

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>1:00 p.m.</td>
<td>Souris Valley Golf Club</td>
</tr>
</tbody>
</table>

## FIELD TRIPS

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>9:30 a.m.</td>
<td>Minot Municipal Facilities, High Service Pumps, and Flood Zone</td>
</tr>
</tbody>
</table>

Transportation will be provided at door 8 north of the Convention Center.

## LOCAL ARRANGEMENTS COMMITTEE

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

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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 ___________
   Please bill us ___________
   Pay by credit card ___________
   Our check is enclosed ___________
   MAKE CHECK PAYABLE TO: 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)
   Name___________________________________________
   Address _________________________________________
   City, State & Zip Code______________________________
   __________________________________________________
   Your Name/Position/Job Title To Be Used on Name Badge
   __________________________________________________
   __________________________________________________
   Employer ________________________________________
   Work Phone No. __________________________________
   Fax Phone No. ___________________________________
   Email Address ____________________________________

G. FOR CONFERENCE USE ONLY:
   Check #_________________ Cash ___________________
   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
### 2012 Conference Sponsors for Door Prizes, Social Hour, Coffee Breaks and Golf Tournament

*Thank You for Your Contribution.*

<table>
<thead>
<tr>
<th>Sponsor Name</th>
<th>Address (City and State)</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE2S</td>
<td>4050 Garden View Dr, Ste 200, Grand Forks, ND 58201</td>
<td>701-746-8087</td>
</tr>
<tr>
<td>Apex Engineering Group</td>
<td>4733 Amber Valley Parkway S, Fargo, ND 58104</td>
<td>701-373-7992</td>
</tr>
<tr>
<td>Dakota Supply Group, Inc.</td>
<td>4500 Carbine Dr, Bismarck, ND 58501</td>
<td>605-336-8884</td>
</tr>
<tr>
<td>Electric Pump</td>
<td>1434 5th Ave N, Fargo, ND 58102</td>
<td>701-235-7500</td>
</tr>
<tr>
<td>Fargo Water Equipment</td>
<td>4557 15th Ave N, Fargo, ND 58102</td>
<td>701-237-0222</td>
</tr>
<tr>
<td>Ferguson Waterworks</td>
<td>1917 1st Ave N, Fargo, ND 58102</td>
<td>701-293-5511</td>
</tr>
<tr>
<td>HD Supply Waterworks</td>
<td>407 72nd St SE, Minot, ND 58701</td>
<td>952-974-8100</td>
</tr>
<tr>
<td>HDR Engineering, Inc.</td>
<td>6300 S Old Village Place, Ste 100, Sioux Falls, SD 57108</td>
<td>605-977-7740</td>
</tr>
<tr>
<td>Houston Engineering, Inc.</td>
<td>3712 Lockport St, Bismarck, ND 58503</td>
<td>701-323-0200</td>
</tr>
<tr>
<td>Interstate Engineering, Inc.</td>
<td>PO Box 2035, Jamestown, ND 58402</td>
<td>701-252-0234</td>
</tr>
<tr>
<td>Kadrmas, Lee &amp; Jackson</td>
<td>128 Soo Line Dr, Bismarck, ND 58501</td>
<td>701-355-8400</td>
</tr>
<tr>
<td>Killoran Trucking &amp; Brokerage, Inc.</td>
<td>PO Box 66, Tower City, ND 58071</td>
<td>701-749-6190</td>
</tr>
<tr>
<td>Moore Engineering, Inc.</td>
<td>925 10th Ave E, West Fargo, ND 58078</td>
<td>701-282-4530</td>
</tr>
<tr>
<td>MVTL Laboratories, Inc.</td>
<td>2616 E Broadway Ave, Bismarck, ND 58501</td>
<td>701-258-9720</td>
</tr>
<tr>
<td>ND Sewage Pump &amp; Lift Station Service</td>
<td>1734 Main Ave E, West Fargo, ND 58078</td>
<td>701-282-6760</td>
</tr>
<tr>
<td>Olson Engineering, Inc.</td>
<td>PO Box 1062, Devils Lake, ND 58301</td>
<td>701-662-6520</td>
</tr>
<tr>
<td>Olson Engineering, Inc. (SEH)</td>
<td>1200 25th Ave S, St. Cloud, MN 56301</td>
<td>320-229-4300</td>
</tr>
<tr>
<td>Short Elliott Hendrickson, Inc.</td>
<td>2335 W Highway 36, St. Paul, MN 55113</td>
<td>651-636-4600</td>
</tr>
<tr>
<td>Stantec Consulting Serv., Inc.</td>
<td>PO Box 1467, Detroit Lakes, MN 56501</td>
<td>218-846-9490</td>
</tr>
<tr>
<td>Team Lab</td>
<td>PO Box 1467, Detroit Lakes, MN 56501</td>
<td>218-846-9490</td>
</tr>
<tr>
<td>Visu-Sewer, Inc.</td>
<td>W230 N4855 Betker Dr, Pewaukee, WI 53072</td>
<td>262-695-2340</td>
</tr>
<tr>
<td>Visu-Sewer, Inc.</td>
<td>W230 N4855 Betker Dr, Pewaukee, WI 53072</td>
<td>262-695-2340</td>
</tr>
</tbody>
</table>

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

TUESDAY, OCTOBER 16, 2012
AFTERNOON CONCURRENT SESSIONS

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

1:30 p.m. Title:
“Fixed Intergrated Treatment Technologies, An Innovation”
Speaker: Tim Petz, Owner, Innovative Treatment Systems

2:30 p.m. Title:
“Investigation of Pinhole Copper Corrosion in Household Plumbing”
Speaker: Delvin DeBoer, Special Projects Engineer, AE2S

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. Title:
“Keeping Track of Your Infrastructure”
Speaker: Hazel Sletten, Water Plant Superintendent, City of Grand Forks

3:00 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:
“Successful Operation of Nanofiltration Water Treatment Plants: Lessons Learned”
Speaker: Steve Ahlschlager, Senior Project Engineer, Moore Engineering

4:00 p.m. Title:
To Be Determined
Speaker: UND WEFTEC Design Team

5:00 p.m. Title:
Adjourn
Speaker: Adjourn

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

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:
“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. Title:
“Keeping Track of Your Infrastructure”
Speaker: Hazel Sletten, Water Plant Superintendent, City of Grand Forks

3:00 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:
“Successful Operation of Nanofiltration Water Treatment Plants: Lessons Learned”
Speaker: Steve Ahlschlager, Senior Project Engineer, Moore Engineering

4:00 p.m. Title:
To Be Determined
Speaker: Adjourn

5:00 p.m. Title:
Adjourn
Speaker: Adjourn

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

1:30 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

2:30 p.m. Title:
“Impact of Climate Variability on Runoff”

3:00 p.m. Title:
“Keeping Track of Your Infrastructure”
Speaker: Hazel Sletten, Water Plant Superintendent, City of Grand Forks

3:00 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:
“Successful Operation of Nanofiltration Water Treatment Plants: Lessons Learned”
Speaker: Steve Ahlschlager, Senior Project Engineer, Moore Engineering

4:00 p.m. Title:
To Be Determined
Speaker: UND WEFTEC Design Team

5:00 p.m. Title:
Adjourn
Speaker: Adjourn

Break, Grand Ballroom

5:00 - 7:00 p.m. Buffet Dinner, Grand Ballroom
WEDNESDAY, OCTOBER 17, 2012
AFTERTUN CONCURRENT SESSIONS

<table>
<thead>
<tr>
<th>Session A</th>
<th>Session B</th>
<th>Session C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Room of the Convention Center</td>
<td>Lower Banquet Center</td>
<td>Candlelite I &amp; II Rooms</td>
</tr>
<tr>
<td>Moderator: Nancy Huether, Trustee, NDAWWA</td>
<td>Moderator: Wei Lin, President-Elect, NDWEA</td>
<td>Moderator: Walt Smith, Director, NDCAPWA</td>
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<table>
<thead>
<tr>
<th>Time</th>
<th>Session A</th>
<th>Session B</th>
<th>Session C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 p.m.</td>
<td>No Session</td>
<td>&quot;Wastewater Disposal Challenges in Western ND&quot;</td>
<td>&quot;Challenges and Opportunities in Permit Implementation and MS4 Management&quot;</td>
</tr>
<tr>
<td>Speaker:</td>
<td>Scott Kinsella, Branch Manager, Hawkins, Inc.</td>
<td>Panel Discussion</td>
<td>Panel Discussion</td>
</tr>
<tr>
<td>2:30 p.m.</td>
<td>&quot;Chemically Cleaning Distribution Systems&quot;</td>
<td>&quot;Membrane Thickening Aerobic Digestion Process&quot;</td>
<td>&quot;Urban Forestry - The Green Infrastructure&quot;</td>
</tr>
<tr>
<td>Speaker:</td>
<td>Scott Kinsella, Branch Manager, Hawkins, Inc.</td>
<td>Bryen Woo, Project Manager, Ovivo USA, LLC</td>
<td>W.L. Jackson Bird, City Forester, City of Bismarck</td>
</tr>
<tr>
<td>Karla Olson, Associate/Project Manager, Apex Engineering Group</td>
<td></td>
<td>Karla Olson, Associate/Project Manager, Apex Engineering Group</td>
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<tr>
<td>3:00 p.m.</td>
<td>Break</td>
<td>Break</td>
<td>Break</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>&quot;Sustainable Communities in North Dakota&quot;</td>
<td>&quot;Industrial Pretreatment&quot;</td>
<td>&quot;Fargo-Moorhead Flood Diversion Project Update&quot;</td>
</tr>
<tr>
<td>Speaker:</td>
<td>Brock Storrusten, Branch Manager, Moore Engineering</td>
<td>Panel Discussion</td>
<td>To Be Determined</td>
</tr>
<tr>
<td>4:30 p.m.</td>
<td>Adjourn</td>
<td>Adjourn</td>
<td>Adjourn</td>
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<tr>
<td>5:30 p.m.</td>
<td>Social Hour, Grand Ballroom</td>
<td></td>
<td></td>
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<tr>
<td>6:30 p.m.</td>
<td>Banquet: Convention Center</td>
<td></td>
<td></td>
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<tr>
<td>Invocation: Terry Rust</td>
<td>Master of Ceremonies: Entertainment:</td>
<td></td>
<td></td>
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</tbody>
</table>
### Session A
**Norse Room of the Convention Center**  
**Moderator:** NDAWWA  
**Title:** Wastewater Collection  
**Speakers:**
- Larry Thelen, Drinking Water Program Administrator, NDDH
- Cory Chorne, Project Manager, AE2S
- David Johnson, Operations Manager, AE2S

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

9:30 a.m.  
**Title:** Water Distribution System Modeling for Improved Water Quality  
**Speaker:** Tom Welle, President, Apex Engineering Group

10:00 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  
**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.  
**Title:** Williston Wastewater Treatment Facility Update-Domestic Wastewater Needs in an Oil Boom  
**Speakers:** 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  
**Title:** LIDAR Survey-Scanning the Future  
**Speaker:** Pete Eade, Lead Engineering Tech, Bartlett & West

9:00 a.m.  
**Title:** Sediment Dynamics on the Red River and its Tributaries near Fargo, ND  
**Speaker:** Joel Galloway, U.S. Geological Survey

9:30 a.m.  
**Title:** Storm Water Pollution Prevention Plan  
**Speaker:** Dallas Grossman, Environmental Engineer, NDDH

10:00 a.m.  
**Title:** Storm Water Lift Station Assessment and Long-term Planning  
**Speakers:** Joel Paulsen, Municipal Group Leader, Kadmas, Lee & Jackson
- John Wirries, Project Engineer, Kadmas, Lee & Jackson

11:00 a.m.  
**Title:** NDPDES Update  
**Speaker:** Karl Rockeman, NDPDES Program Manager, NDDH

11:30 a.m.  
**Adjourn**

**OFFICIAL BULLETIN, July-September 2012**

**THURSDAY, OCTOBER 18, 2012**

**MORNING CONCURRENT SESSIONS**

**Joint Luncheon and Business Meetings, NDAWWA and NDWPCC**  
**NDAWWA Chair:** Tim Paustian and **NDWPCC President:** Karla Olson  
**Guest Speaker:** Gene Kooutz, Vice-President, AWWA, Lemoyne, PA
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New Ulm, MN 800-782-3557

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### CONFERENCE HISTORY

<table>
<thead>
<tr>
<th>Conference Year</th>
<th>Host City</th>
<th>President</th>
<th>President’s Residence</th>
<th>Conference Year</th>
<th>Host City</th>
<th>President</th>
<th>President’s Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Minot</td>
<td>Karla Olson</td>
<td>Fargo</td>
<td>2011</td>
<td>Bismarck</td>
<td>Chuck Abel</td>
<td>Bismarck</td>
</tr>
<tr>
<td>2010</td>
<td>Fargo</td>
<td>Miranda Kleven</td>
<td>Grand Forks</td>
<td>2009</td>
<td>Minot</td>
<td>Lisa Ansley</td>
<td>Bismarck</td>
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<td>2008</td>
<td>Bismarck</td>
<td>Terry Rust</td>
<td>West Fargo</td>
<td>2007</td>
<td>Fargo</td>
<td>Mark Blonigen</td>
<td>Fargo</td>
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<tr>
<td>2006</td>
<td>Minot</td>
<td>Tom Walle</td>
<td>Moorhead</td>
<td>2005</td>
<td>Bismarck</td>
<td>Jack Long</td>
<td>Bismarck</td>
</tr>
<tr>
<td>2004</td>
<td>Fargo</td>
<td>Rick Gillund</td>
<td>Enderlin</td>
<td>2003</td>
<td>Minot</td>
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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.
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 Sorensen, 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.

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 mailed 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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Fargo, ND  58104 FAX 701-373-7981
tom.welle@apexenggroup.com
Apex Engineering Group was founded in 2012 by an entrepreneurial group of engineers and technicians with a long history in the engineering consulting business. The owners and employees of Apex share a common vision of what it takes to build a successful engineering firm - exceptional client service, quality work, integrity, experience, expertise and a drive for success. Our team has extensive experience in the industry and this region. Our leaders are professionals with proven track records of producing successful projects with many long-term clients and are considered experts in their respective fields. At Apex we have put a ban on bureaucracy. We have stripped away anything and everything that stands in the way of what matters: serving our clients. Apex’s business focus is Water, Transportation, Municipal and Electrical Engineering Services. We recently added land surveying to complement our current services in order to better serve our clients. Apex has offices in Fargo and Bismarck, North Dakota.

Quality Flow Systems, Inc. Kevin Huson
800 6th St NW 952-758-9445
New Prague, MN  56071 FAX 952-758-9661 pat@qfsi.net
Quality Flow Systems, Inc. is a manufacturers’ representative for KSB, Grundfos, Yeomans, Chicago, Sewer Chewer, Morris, Siemens, QLI, Sensaphone, Crane Pumps & Systems, Goulds, American Turbine, Griswold and GPM Pumps. We provide 24-hour service assistance and have six fully equipped service trucks operating throughout our territory of Minnesota, North Dakota, South Dakota, Iowa and Nebraska. We have stock pumps and parts.

Advanced Drainage Systems Andy Mastel
4111 Bayport PL SE 701-204-3850
Mandan, ND  58554 FAX 866-545-3237 andy.mastel@ads-pipe.com
Advanced Drainage Systems (ADS) is a North Dakota company. We are proud to have a plant in Buxton, North Dakota. ADS manufactures plastic drainage products. We specialize in manufacturing single well and dual well-corrugated polyethylene pipe. We offer products for many markets in North Dakota including; agriculture, storm water drainage, onsite septic systems, retention/detention systems, sanitary sewer and many others.

Houston Engineering, Inc. Kevin Martin
3712 Lockport St 701-323-0200
Bismarck, ND  58503 FAX 701-323-0300 ldockter@houstoneng.com
Houston Engineering, Inc. is a full service engineering firm with offices throughout the Upper Midwest. A
regional leader in the industry, we continue to expand
our client base across the nation and beyond. Today,
as always, our focus is on our clients. We offer
comprehensive evaluations and innovative solutions for
your engineering challenges. At Houston Engineering,
we have the talent, we have the technology and we have
the experience.

**Construction Specialties**  
Rocky Waldin  
7100 Utica Ln  
Chanhassen, MN  55317  
FAX 952-470-0342  
rockyw@minn.net

Manufacturers’ representative for Royal Erosion
Control Systems (licensed precaster is Cretex West),
supply the cable concrete erosion control products and
Cretex Specialty Products supply a full line of manhole
and pipe sealing products. We also work with APM/
Permaform, offering manhole spray lining and cast-in-
place structural rebuilding.

**Thein Well Co.**  
Zack Thein  
PO Box 778  
Spicer, MN  56288  
FAX 320-796-2114  
zack@theinwell.com

Thein Well Co. is a full service well contractor
installing water wells of all sizes and types. We also
install and service water pumps and pumping systems
and just about anything associated with a customer’s
water needs.

**Short Elliott Hendrickson, Inc. (SEH)**  
Tracy Ekola  
3535 Vadnais Center Dr  
St. Paul, MN  55110  
FAX 888-908-8166  
Tekola@sehinc.com

SEH is a multi-discipline firm of engineers, architects,
planners and scientists serving public and private sector
clients.

**Engineering America, Inc.**  
Matt Fritze  
647 Hale Ave N  
Oakdale, MN  55128  
FAX 651-777-5312  
mfritze@engamerica.com

Engineering America, Inc. sells and constructs
equipment for municipal water and wastewater needs.
Engineering America, Inc. will act as principal
contractor for the erection of liquid storage tanks and as
a supplier of process equipment.

**Wells Concrete**  
Richard Edgar  
5000 Demers Ave  
Grand Forks, ND  58201  
FAX 701-772-4315  
richard.edgar@wellsconcrete.com

For more than 45 years, building owners, developers
and contractors have counted on Wells Concrete to
provide the highest quality precast/prestressed concrete
products available in the market for buildings, bridges,
stadiums or parking ramps. The design flexibility
and versatility of precast concrete, coupled with our
experience, workmanship, design support services,
quick turnaround, accessibility and high level of
personal service ensure every project’s success.

**DN Tanks**  
Jerry Myers  
4247 Grove Ave  
Gurnee, IL  60031  
FAX 847-782-0361  
sarah.potts@dntanks.com

Prestressed wire-wound concrete ground water storage.

**Dakota Pump Control, Inc.**  
Angelo Polsinelli  
705 Quadee Dr  
Watertown, SD  57201  
FAX 605-886-4674  
angelo@dpc.us.com

DPC has been serving water and wastewater
communities for more than 46 years and is committed
to serving North Dakota. They are proud Diamond
Sponsors of NDRWSA. Their products and services
include pumps, tanks, valves and controls. They
also offer 24/7 service and have crane trucks. They
represent Fairbanks Morse and Hydromatic sewage and
water pumps; Tank Connection bolted stainless steel
and powder coated steel tanks, field-weld, shop-weld
and hybrid tank construction, Usemco booster pump
stations; Healy-Ruff; Control SCADA for the small
community; and ITT Goulds Aquavar; VFDs and much
more. Most importantly, they provide outstanding
customer service. DPC will work with you to help
solve your biggest challenges. Area served: Minnesota,
western Wisconsin, North Dakota and South Dakota.

**Vessco, Inc.**  
Terry Schiro  
8217 Upland Cr  
Chanhassen, MN  55317  
FAX 952-941-0796  
tschiro@vessco.com

Vessco, Inc. has been serving Upper Midwest
industrial and municipal customers for more than 20
years. During that time, we have built a reputation
for representing the best equipment in today’s water treatment world. We have also become known as the best source for a total solution that includes initial consultation, design partnering, installation assistance, field service and parts delivery. At a time when a strong demand for environmental preservation is putting pressure on municipalities and industries to uphold high quality standards for water, wastewater and process water, Vessco is the proven partner that offers much more than just components. We provide turnkey solutions from conception to ongoing support, well into the future.

Mishler Sales
PO Box 81348
Billings, MT

Cavin Noddings
406-633-2316
FAX 406-633-2650
cavin@mishlersales.com

Mishler Sales, Incorporated represents manufacturers’ quality products for the water, wastewater, storm drain and irrigation markets. We assist designers, owners, distributors and contractors in selecting products for use in those industries. Our industry experience is in PVC pipe (CERTAINTEED CORP), joint restraints (EBAA Iron), drainage pipe (HANCOR, INC.), repair clamps, couplings, casing spacers, service saddles, tapping sleeves (CASCADE WATERWORKS MFG.), hydraulic control valves, pressure reducing, pump control, altitude, anti-cavitation, relief, concrete and steel prefabricated valve vaults (SINGER VALVE, INC.), sewer service branch (INSERTA-TEE) and other related items. Most items are sold through distributors in their respective industries and appropriate areas of coverage.

Tech Sales Co.
311 44th St W
Minneapolis, MN 55409

Abraham Salamzadeh
612-823-8238
FAX 612-823-4272
salamzadeh@techsalesco.com

Tech Sales Co. is a manufacturers’ representative for water and wastewater instrumentation. Products include flow measurement, sampling, analytical, gas detection and remote monitoring.

Dakota Supply Group, Inc.
4500 Carbine Dr
Bismarck, ND 58501

Malcolm MacDonald
701-221-9070
FAX 701-221-9069
mmacdonald@sginc.biz

Just one call to us at Dakota Supply Group (DSG) and we can package water and sewer products with electrical controls to offer you easy-to-understand, turnkey solutions to your municipal or industrial water supply or waste water projects. Our waterworks division stocks a complete line of pipe and fittings, valves, hydrants and pumps. DSG Metering Technology offers comprehensive metering system solutions for municipal electric, gas, water and wastewater utility markets throughout the Midwest. The experienced engineers and technicians in our Industrial Automation Group can design and build automation solutions for any size project.

AE₂S
4050 Garden View Dr Ste 200
Grand Forks, ND 58201

Charlie Vein
701-746-8087
FAX 701-746-0370
conferences@ae2s.com

AE₂S is a specialized civil/environmental consulting engineering firm that provides professional services and our unique brand of extreme client service to clients in the Upper Midwest. AE₂S specializes in water, wastewater, water resources, rural water, civil engineering, geomatics, structural engineering, electrical engineering, instrumentation and controls and financial services. AE₂S has offices located in Bismarck, Dickinson, Fargo, Grand Forks, Minot, Watford City and Williston, North Dakota; Eagan, Maple Grove and Moorhead, Minnesota; and Great Falls and Kalispell, Montana. For more information, visit www.ae2s.com or AE₂S Facebook.

Van Bergen & Markson, Inc.
8814 7th Ave N
Minneapolis, MN 55427

Gary Metzler
763-546-4340
FAX 763-546-0973
info@vbminc.com

Van Bergen & Markson has been involved in the water and wastewater business since 1929. Serving North Dakota, South Dakota, Minnesota, Wisconsin and Michigan with quality products from manufacturers since 1977, they can help you solve your wastewater problems with innovative solutions!
such as OVIVO (formerly Eimco), Weir Floway, Moyno Pumps, Goulds, Sulzer, Ashbrook Sinion-Hartley, Enviro-Care, Hallsten, MTS, Hydro-Gate and Smith & Loveless.

**American Flow Control**

Chris Ruskamp
123 Airview Dr
Sgt. Bluff, IA 51054
712-574-6160
FAX 205-307-3951

cruskamp@american-usa.com

American Flow Control manufactures both American Darling and Waterous fire hydrants and gate valves used in water applications.

**Red Flint Sand & Gravel**

John Prock
One American Blvd
Eau Claire, WI 54701
715-855-7600
FAX 715-855-7608

John.prock@redflint.com

Producer of Red Flint Sand and Gravel specializing in low uniformity coefficients and custom sizes ranging from 2 ½” gravel to .20 mm sand. Exceeds AWWA and ANSI/NSF specifications for quality and purity. Low-acid solubility and sub-angular media yields maximum turbidity entrapment. Though our approach is expert, our solutions are simple. Red Flint Sand and Gravel - producing water filtration media since 1917. Red Flint Sand and Gravel (800) 238-9139; (715) 855-7750; FAX: (715) 835-0662, john.prock@redflint.com/www.redflint.com

**Parsons Engineered Products, Inc.**

Phil Parsons
5051 Hwy 7 Ste 290
Minneapolis, MN 55416
952-926-7000
FAX 952-925-1323
phil@pep-reps.com

Parsons Engineered Products, Inc. is a manufacturers’ rep firm serving the water and wastewater process equipment marketplace. We offer products and services for municipalities and industries alike. Specifically, we offer a wide range of products and services including pretreatment screens and compactors, grit removal and classification systems, aeration, blowers, clarification, sludge dewatering centrifuge and presses, anaerobic digester steel and fabric covers, mixers, FRP covers and domes, bolted steel tanks, plastic biological media for trickling filters and suspended growth systems for BOD and nitrification and a wide range of odor and corrosion control scrubbers and chlorine scrubbing systems.

**Bartlett & West, Inc.**

Darin Schaeffer
3456 E Century Ave
Bismarck, ND 58503
701-258-1110
FAX 701-258-1111
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
Stillwater, MN 55082
651-274-8506
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 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
St. Paul, MN 55113
651-636-4600
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
Mitchell, SD 57301
605-996-5521
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
Willmar, MN 56201
701-205-5168
FAX 320-222-6820
mikeo@prinsco.com
Pollution Control Systems
Mark Vogt
102 ½ E 4th St
Vinton, IA 52349
319-472-4082
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
Fargo, ND 58102
701-282-7655
FAX 701-282-2887
HD Supply Waterworks
Justin Hochhalter
407 72nd St SE
Minot, ND 58701
952-974-8100
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
Fargo, ND 58102
701-237-0222
FAX 701-237-9609
jack@FGOH20.com
We provide water and sewer products and work with Underground Solutions doing fusible PVC piping systems.
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.)

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

*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

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

### North Dakota Pollutant Discharge Elimination System Program Directory

<table>
<thead>
<tr>
<th>Program Administrator</th>
<th>Name</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Feeding Operations</td>
<td>Brady Espe</td>
<td>701-328-5219</td>
</tr>
<tr>
<td>Biosolids</td>
<td>Marty Haroldson</td>
<td>701-328-5234</td>
</tr>
<tr>
<td>Construction Stormwater</td>
<td>Dallas Grossman</td>
<td>701-328-5242</td>
</tr>
<tr>
<td>Dewatering and Hydrostatic Testing</td>
<td>Marty Haroldson</td>
<td>701-328-5234</td>
</tr>
<tr>
<td>Discharge Monitoring Reports (DMRs)</td>
<td>Curt Steier</td>
<td>701-328-5260</td>
</tr>
<tr>
<td>DMR Quality Assurance (QA) Study</td>
<td>Marty Haroldson</td>
<td>701-328-5234</td>
</tr>
<tr>
<td>Industrial Pretreatment</td>
<td>Jeff Roerick</td>
<td>701-328-5240</td>
</tr>
<tr>
<td>Industrial Stormwater</td>
<td>Dallas Grossman</td>
<td>701-328-5242</td>
</tr>
<tr>
<td>Inspections</td>
<td>All Staff</td>
<td>701-328-5210</td>
</tr>
<tr>
<td>Lagoon Overflows/Releases/Spills</td>
<td>All Staff</td>
<td>701-328-5210</td>
</tr>
<tr>
<td>MS4 Stormwater</td>
<td>Dallas Grossman</td>
<td>701-328-5242</td>
</tr>
<tr>
<td>Public Notices/NDPDES Permits</td>
<td>Curt Steier</td>
<td>701-328-5260</td>
</tr>
<tr>
<td>Septic Pumper</td>
<td>Marty Haroldson</td>
<td>701-328-5234</td>
</tr>
<tr>
<td>Wastewater Discharge Approvals</td>
<td>Curt Steier</td>
<td>701-328-5260</td>
</tr>
</tbody>
</table>

Central Phone: 701-328-5210
Fax: 701-328-5200

Central Phone: 701-328-5211
Fax: 701-328-5200

These elements make up the structure of AE2S. What does that mean to you? Extreme client service, trusted relationships, a shared vision for your future, and passion for every project. They all translate into your success.

Advanced Engineering and Environmental Services, Inc. (AE2S) Offices:
Bismarck Dickinson Fargo Grand Forks Minot Watford City Williston
Eagan Maple Grove Moorhead
Great Falls Kalispell
www.ae2s.com

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WATER ENGINEERING
FINANCIAL/ASSET MANAGEMENT
INSTRUMENTATION & CONTROLS
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CIVIL ENGINEERING
STRUCTURAL ENGINEERING
LAND DEVELOPMENT
SURVEY/MAPPING/GIS

Think Big. Go Beyond.