

2018 ND WATER QUALITY MONITORING CONFERENCE

March 6-8, 2018

Bismarck State College ♦ National Energy Center of Excellence
Bismarck, North Dakota

PRESENTATION SCHEDULE (SUBJECT TO CHANGE)

TUESDAY, MARCH 6, 2018

| | | |
|-----------------------|---|---|
| | PRE-CONFERENCE WORKSHOP | |
| 9:00 am - 12:00 pm | STATISTICAL ANALYSIS FOR WATER-QUALITY DATA <i>Karen Ryberg, Skip Vecchia - US Geological Survey, Dakota Water Resource Center</i> <i>ROOM 431-433, NATIONAL ENERGY CENTER OF EXCELLENCE</i> | |
| 11:00 am | REGISTRATION & CHECK-IN | FOYER, 4TH FLOOR, NATIONAL ENERGY CENTER OF EXCELLENCE |
| | EXHIBITOR SHOWCASE | BAVENDICK STATEROOM |
| 1:00 pm | WELCOME | BAVENDICK STATEROOM |
| | <i>Doug Burgum, Governor, State of North Dakota (invited, tentative)</i> <i>Steve Robinson, Dakota Water Science Center, USGS (conference co-chair)</i> <i>Karl Rockeman, Division of Water Quality, ND Dept. of Health (conference co-chair)</i> | |
| 1:30 pm | OPENING PLENARY SESSION | |
| | ▪ CYANOBACTERIA HARMFUL ALGAE BLOOM MONITORING AND APPLICATIONS USING SATELLITE REMOTE SENSING <i>Blake Schaeffer, U.S. Environmental Protection Agency</i> | |
| 2:20 pm | HARMFUL ALGAL BLOOMS | |
| | <i>Moderator: Karl Rockeman, ND Dept. of Health</i> | |
| | ▪ DATA FROM THE 2012 USEPA NATIONAL LAKES ASSESSMENT REVEAL PLAINS ECOREGIONS AS HOTSPOTS FOR HARMFUL ALGAL BLOOMS <i>John Beaver, BSA Environmental Services, Inc.</i> | |
| | ▪ MONITORING HARMFUL CYANOBACTERIA BLOOMS AND ASSESSING THE ROLE OF NUTRIENTS AT TWO NORTH DAKOTA NATIONAL WILDLIFE REFUGES <i>Joseph Nett, ND Dept. of Health</i> | |
| 3:00 pm | BREAK | BAVENDICK STATEROOM |
| 3:30 pm | RED RIVER BASIN | |
| | <i>Moderator: Ted Alme, USDA, Natural Resources Conservation Service</i> | |
| | ▪ WATER QUALITY ON THE RED RIVER OF THE NORTH NEAR FARGO-MOORHEAD FROM 2001-2017 <i>Kim Morris, Riverkeepers</i> | |
| | ▪ EXAMINING THE IMPACT OF DEVILS LAKE OUTLETS ON FLOOD RISK OF THE SHEYENNE RIVER <i>Afshin Shabani, University of North Dakota</i> | |
| | ▪ WHAT CAN GEOLOGY TELL US ABOUT WATER QUALITY IN THE RED RIVER BASIN? <i>Scott Korom, Barr Engineering Company</i> | |
| 4:50 pm | WRAP-UP | |
| | EVENING (ON YOUR OWN) | |

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|-----------------------|---|----------------------------|
| 8:00 am - 10:00 am | CAREERS IN WATER SCIENCE WORKSHOP <i>A Visit with Scientists and Engineers</i> | Rooms 431/433 |
| 8:00 am | MORNING PLENARY SESSION <ul style="list-style-type: none">HYDROCARBONS IN GROUNDWATER OVERLYING OIL AND GAS PRODUCTION AREAS IN THE CENTRAL AND WESTERN U.S. <i>Peter McMahon, U.S. Geological Survey, Denver CO</i> | |
| 8:50 am | ENERGY DEVELOPMENT <i>Moderator: Kim Fischer, ND State Water Commission</i> <ul style="list-style-type: none">ASH COULEE CREEK SPILL UPDATE <i>Bill Suess, ND Dept. of Health</i>UNDERSTANDING THE RELATION BETWEEN ENERGY AND WATER IN THE WILLISTON BASIN <i>Joanna Thamke, U.S. Geological Survey, WY-MT Water Science Center</i>INDUSTRIAL WASTE AS A SUSTAINABLE FILTRATION MEDIA TO TREAT PESTICIDES IN WATER <i>Tauqeer Abbas, North Dakota State University</i> | |
| 10:00 am | BREAK | BAVENDICK STATEROOM |
| 10:30 am | WATER QUALITY EDUCATION <i>Moderator: Jim Collins, ND Dept. of Health</i> <ul style="list-style-type: none">LARIMORE HIGH SCHOOLMINTO HIGH SCHOOLWEST FARGO HIGH SCHOOLMAYVILLE-PORTLAND HIGH SCHOOLMINOT HIGH SCHOOL | |
| 12:00 pm | LUNCH WITH KEYNOTE PRESENTATION LESSONS LEARNED DOWN THE MISSISSIPPI <i>Alyssum Pohl, Authenticity Coach and Paddle On Adventurer</i> | BAVENDICK STATEROOM |



ALYSSUM POHL

Alyssum is a cheerful and multi-talented woman with extensive scientific, policy, and creative training. Her love and appreciation of the natural world began at an early age as her family raised rabbits, built a home in the Kentucky hills sandwiched between State Park and National Forest, and then took a year to live aboard a sailboat. She holds a B.S. in biology from the University of Kentucky, an M.A. in International Environmental Policy from the Monterey Institute of International Studies, and spent several years in veterinary school. In 2015, she embarked on a self-directed expedition, Paddle On, in which she solo kayaked the Mississippi River from source to sea, documenting plastic waste and water quality. She is now working on a memoir of her many adventures.

1:30 pm **URBAN AND STORMWATER**

Moderator: Christina Hargiss, North Dakota State University

- DEVELOP INFORMED IMPLEMENTATION PLANS AND DEMONSTRATE COMPLIANCE WITH DNA EVIDENCE
Daron Stein, Source Molecular
- URBAN WATER QUALITY IN A COMMUNITY BASED GREEN INFRASTRUCTURE DESIGN: THE FARGO PROJECT
Jesse Riley, North Dakota State University
- INVESTIGATING SOURCES OF FECAL INDICATOR BACTERIA IN STORMWATER AND STREAMS IN RAPID CITY, SOUTH DAKOTA
Galen Hoogestraat, U.S. Geological Survey, Dakota Water Science Center

2:30 pm **Poster Presentation Lightning Round**

BAVENDICK STATEROOM

3:00 pm **EXTENDED BREAK; POSTER REVIEW**

4:00 pm **WETLANDS**

Moderator: Kris Jensen, US Environmental Protection Agency, Region 8

- HOW ARE REFERENCE CONDITION WETLANDS IN NORTH DAKOTA CHANGING OVER TIME?
Christina Hargiss, North Dakota State University
- MULTI-ELEMENT ASSESSMENT OF WETLANDS SOILS REFLECTS DISTURBANCE
Marinus Otte, North Dakota State University
- HYDROLOGIC AND WATER QUALITY MODELING IN DEPRESSION-DOMINATED BASINS
Mohsen Tahmasebi Nasab, North Dakota State University

5:00 pm **WRAP-UP**

Evening (ON YOUR OWN)

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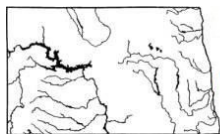
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THURSDAY, MARCH 8, 2018

MORNING PLENARY SESSION

BAVENDICK STATEROOM

8:00 am

Conservation Effects Assessment Project (CEAP)

Lee Norfleet, Natural Resources Conservation Service, Resource Assessment Division

8:50 am

AGRICULTURE

Moderator: Greg Sandness, ND Dept. of Health

- **NORTH DAKOTA RED RIVER BASIN PTMAPP**
Chuck Fritz, International Water Institute
- **MAKING INFORMED CONSERVATION INVESTMENTS TO IMPROVE WATER QUALITY - NORTH DAKOTA'S OPPORTUNITY**
Mark Deutschman, Houston Engineering
- **RUNOFF AND WATER-QUALITY CHARACTERISTICS OF THREE DISCOVERY FARMS IN NORTH DAKOTA, 2008-16**
Joel Galloway, U.S. Geological Survey, Dakota Water Resources Center
- **SUBSURFACE DRAINAGE AND SUBIRRIGATION IMPACT ON GROUNDWATER AND SURFACE WATER QUALITY**
Xinhau Jia, North Dakota State University
- **ASSESSING THE EFFECT OF TILE DRAINAGE ON STREAMFLOW AND NITRATE LOAD USING SWAT MODEL**
Ali Rashid Niaghi, North Dakota State University

10:30 am

BREAK

BAVENDICK STATEROOM

10:50 am

TRENDS: PAST, PRESENT AND FUTURE

Moderator: Joel Galloway, US Geological Survey, Dakota Water Resources Center

- **LESSONS LEARNED FROM CALCULATING 11,893 WATER-QUALITY TRENDS NATIONWIDE**
Karen Ryberg, U.S. Geological Survey, Dakota Water Resources Center
- **THE NORTH DAKOTA AGRICULTURE AMBIENT GROUNDWATER MONITORING PROGRAM: A 25 YEAR SUMMARY**
Andrew Peterson, ND Dept. of Health, Division of Water Quality
- **RED RIVER BASIN TREND ANALYSIS: A PRELIMINARY LOOK**
Rochelle Nustad, U.S. Geological Survey, Dakota Water Resources Center
- **SCENARIOS OF THE NORTH DAKOTA ENVIRONMENT IN 30 YEARS**
Jack Norland, North Dakota State University

12:10 pm

Closing

THANK YOU FOR ATTENDING THE 2018 ND WATER QUALITY MONITORING CONFERENCE!

North Dakota
Water Quality
Monitoring Council

