

The Current

2016 Issue II

A NEWSLETTER FROM NORTH DAKOTA'S OFFICE OF THE STATE ENGINEER & STATE WATER COMMISSION



Todd Sando, P.E.
State Engineer &
Chief Engineer-Secretary

At the March 9 State Water Commission meeting in Bismarck, I announced that I will be retiring in June from my position as State Engineer and Chief Engineer-Secretary to the Commission.

As my wife Lunette and I contemplated this decision in the months leading up to my announcement, it became more and more apparent to both of us that this decision wasn't just about walking away from a professional career. It was, in fact, much more than that. It was also about a change in how much I would be involved in one of my life long passions – water.

From fishing to flooding, water has always been a big part of my life. As I look back on my younger years, some of my fondest memories involve time spent at my grandparents' lake place in Minnesota, or fishing on the Missouri River system with my father Ron, or father-in-law Al. In my college years, when I started to pursue an education in civil engineering, my growing understanding of the breadth of water's impact on our lives only grew my intrigue. I began to understand its influence. I began to understand its importance and unyielding power. But more than anything, I began to understand its necessity.

For that reason, when I began my career with the State Water Commission back in 1985, I knew right away it was my dream to one-day serve as North Dakota's State Engineer. In 2010, I realized that dream, and I am incredibly grateful for the experiences and satisfaction that have come with this opportunity.

Over the course of my 31 years at the State Water Commission, I have learned a very simple yet fundamental lesson. Water gives, and water takes. And with that simple truth in mind, there are several events and agency accomplishments that stand out as I look back on my time with the agency.

I will never forget the pain and sorrow that I've seen in the eyes of residents and government officials who gave everything they had to the flood fights in Grand Forks in 1997, Minot in 2011, Devils Lake since the early 1990s, and in dozens of other communities throughout this great state. I can recall story after story

(Continued)

**SAVE THE
DATE!**

**TODD
SANDO'S**

RETIREMENT
CELEBRATION

**JUNE 22, 2016
2:00-4:00PM**

Missouri River
Events Center

North Dakota
Heritage Center

612 E. Boulevard Ave.
Bismarck, ND

Can You Find The Water Drop?



This water drop is hidden
somewhere in this issue.

PROMOTIONS & NEW HIRES



CONGRATULATIONS AARON!

Aaron Carranza has been promoted as the new Section Chief of Engineering and Permitting in the Regulatory Division. Aaron has been employed with the State Water Commission for the past four years and was previously a Regulatory Water Resources Engineer. He grew up near Plymouth, MN and graduated with a Bachelor's degree in Civil Engineering from Iowa State University and Technology in Ames, IA. Aaron is married and has two daughters, Maren and Alana. His hobbies include snowboarding, camping, gardening, and playing softball and golf.



TIM DODD

Tim Dodd has recently been hired as a Water Resource Engineer III in the Water Development Division. Tim is originally from Bismarck. He graduated from North Dakota State University with a Bachelor's in Civil Engineering. Tim proudly served in the National Guard for 6 years, and was deployed to Kosovo in 2010 for one year. He was previously employed at Pinnacle Engineering in Wilton, working with environmental compliance, stormwater, erosion control and inspection. Tim enjoys hunting, fishing, and playing tennis. He also enjoys spending time with his wife and preparing for the arrival of their first child that is due in May.



BRIAN MAGER

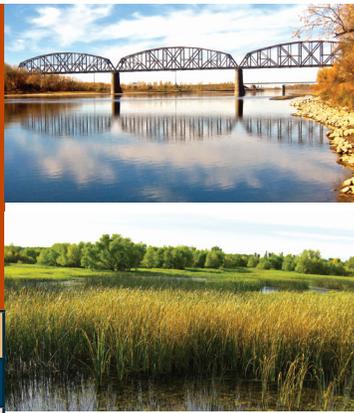
Brian Mager started in February in the Regulatory Division at the State Water Commission as a Water Resource Engineer III. Brian grew up in Alvarado, MN, just north of Grand Forks. He attended the University of North Dakota and completed his undergraduate degree in Civil Engineering in 2012 and later completed his Master's degree in Water Resources. He was recently employed with Ulteig Engineering focusing on water resources at their Bismarck office. Brian enjoys hunting, fishing, kayaking, and biking.



GRAHAM HART

Graham Hart has been hired in the Regulatory Division as a Water Resource Engineer II. He recently moved to Bismarck from Everett, Washington. Graham attended Washington State University and received a Bachelor's degree in Civil Engineering and Mathematics. After graduation, he moved to Anchorage, AK and worked for a private firm focusing on water resources for state and local government. He also has previous employment experience working on land development projects in the Seattle, WA area. Graham enjoys hiking, outdoor activities, and reading.

2016 WATER EDUCATION Season Starting



DATE	EVENT/LOCATION
MARCH	
16-17	Gateway To Science, Bismarck
29	Prairie Waters Water Festival, Kathryn
APRIL	
12	Morton County Water Festival, Mandan
19	Bottineau Water Festival, Bottineau
21	Bismarck Earth Day Festival, McCabe Church
21	Earth Day Festival, Bismarck State College
22-23	ND Science & Math Conference, Grand Forks
27-28	Confluence Center Water Festival, Williston
MAY	
3-4	G.F. Water Festival, East Grand Heritage Farm
4	Red River Water Festival, Chahinkapa Zoo
10	Fort Totten Water Festival, Fort Totten
11-13	Envirothon, Crystal Springs Camp
16 -17	Bismarck Water Festival, Jack Science Center

North Dakota Water Forums

The next ND Water Forum webinar will take place on Thursday, May 5. We invite you to log in and listen in to experts who will address some of North Dakota's contemporary water-related issues.

**Thursday, May 5,
2:00-3:30 P.M. (Central)**

Greg Power, ND Game & Fish
ND 2016 Fishery Outlook

Laura Ackerman, SWC
Missouri River Recovery Implementation Committee
(MRRIC)

Look for more information at www.swc.nd.gov including registration and login information.

WESTERN STATES WATER COUNCIL TO HOLD SUMMER MEETING IN BISMARCK

On July 13-15, the Western States Water Council (WSWC) will be holding their summer meeting in Bismarck, hosted by the State Water Commission.

The WSWC is an organization consisting of representatives appointed by the governors of 18 western states.

The purpose of the WSWC is:

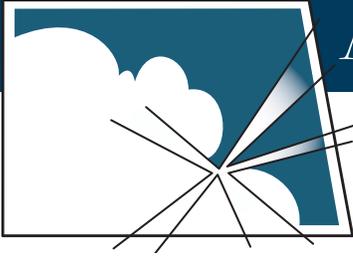
- To accomplish effective cooperation among western states in the conservation, development and management of water resources;
- To maintain vital state prerogatives, while identifying ways to accommodate legitimate federal interests;
- To provide a forum for the exchange of views, perspectives, and experiences among member states; and
- To provide analysis of federal and state developments in order to assist member states in evaluating impacts of federal laws and programs and the effectiveness of state laws and policies.

During their time here, the WSWC will meet to discuss water policy issues of concern to the governors of the member states, and tour the Missouri River near Bismarck in order to discuss water issues facing North Dakota.

The tour will highlight:

- Flooding and Flood Mitigation
- Erosion and Sedimentation
- Endangered Species Act
- Recreation
- Sovereign Lands
- Emerging Water Supply Technologies
- Interstate Water Conflicts

Welcome in advance WSWC members!



ATMOSPHERIC RESOURCE BOARD



ANOTHER CROP OF NDMCP INTERNS

Shortly after college campuses adjourn for the summer, another dozen bright and talented students will travel to Bismarck for the start of the North Dakota Cloud Modification Project (NDCMP). The NDCMP is a long-running cloud seeding program covering more than 11,500 square miles in western North Dakota. The goals of the program are to enhance growing season rainfall and reduce crop-damaging hail.

Nine intern pilots from the University of North Dakota's (UND) John D. Odegard School of Aerospace Sciences will serve as co-pilots in modified airplanes equipped with cloud seeding generators and flares. Interns will assist the pilots-in-command (PICs) with all aspects of the operation while learning the duties of the PIC and the techniques for flying aircraft around thunderstorms. Since 1974, when the National Science Foundation provided UND a grant to establish a weather modification pilot training program, more than 350 students have participated as interns on the NDCMP.

To qualify for the pilot internship, prospective students must complete AtSci 252 Applied Weather Modification, a 4-credit course offered in the UND Department of

Atmospheric Sciences. Pilots must also have their multi-engine commercial instrument rating and be enrolled for summer internship credit with the university. Total and multi-engine flight time is an additional consideration. Those meeting the requirements may apply for the internship and are interviewed by UND and Atmospheric Resource Board (ARB) staff.

The NDCMP also employs three meteorology interns each season to assist in the logistics of seeding operations and weather forecasting. Interns must be undergraduates majoring in atmospheric science. Started in 1996, the meteorology internship program has provided 50 students an opportunity to gain work experience in their field of study. Several have returned to the NDCMP as radar meteorologists after completing their degree.

ARB is proud of its long relationship with UND's Aerospace program and the many students that have participated in the NDCMP. The internships have launched hundreds of careers in meteorology and aviation over the past 40 years. Their contributions have helped make the NDCMP one of the most successful cloud seeding programs in the world.

SWC MEETING HIGHLIGHTS

TODD'S FAREWELL

On March 9, the State Water Commission approved multiple cost-share requests.

COST-SHARE	
City of Beulah Water Treatment Plant Improvements	\$3,520,000
Garrison Rural Water District System Expansion	\$2,003,550
Northeast Regional Water District Devils Lake Water Supply	\$16,696,920
Southeast Water Users District System Wide Expansion	\$11,791,000
Walsh Rural Water District Phases 1 & 2 System Expansion	\$250,490
USGS Cooperative Hydrologic Monitoring Program	\$529,075
Richland County Legal Drain #2 Reconstruction/Extension	\$535,500
Trail County Buxton Township Improvement District	\$512,090
Cass County Lake Bertha Flood Control Project #75	\$201,350
Richland County Legal Drain #31 Improvements	\$161,852
Sargent Count Shortfoot Creek Watershed Planning Program	\$154,000
City of Lisbon Levee E Construction	\$2,625,000
Williams County Epping Dam Spillway Reconstruction	\$719,045
Richland County Legal Drain #5 Reconstruction	\$531,000
Nelson County Michigan Spillway, Cost Overrun	\$382,049
Pembina County Tongue River NRCS Watershed Plan	\$104,703
Richland County North Branch Antelope Creek NRCS	\$113,400
Cass County Drain #23 Channel Improvements	\$137,181
City of Underwood Floodwater Outlets, Cost Overrun	\$382,541
Cass County Drain #15 Channel Improvements	\$296,562
Cass County Drain #37 Channel Improvements	\$230,326
Cass County Drain #39 Channel Improvements	\$221,871
Sheyenne-Maple Flood Control District #1 Improvements	\$198,023
Mouse River STARR Program	\$7,200,000
Design Engineering Amendment, Phases 1, 2, & 3	\$987,000
TOTAL	\$50,484,528
FEDERAL MUNICIPAL, RURAL & INDUSTRIAL (MR&I) WATER SUPPLY FUNDING	
City of Burlington Water Tower	\$600,000
City of Leonard Service Area Cass Rural Water Users District	\$2,370,000
City of Carrington Water Tower	\$1,900,000
City of Casselton Water Tower	\$1,248,000
City of Kindred Water Tower	\$735,000
City of New England Water Tower	\$1,592,500
City of Rugby Water Treatment Plant Improvements	\$458,000
City of Wahpeton Water Treatment Plant Improvements	\$960,000
City of Westhope Water System Improvements	\$255,000
Southwest Pipeline Project	\$1,000,000
TOTAL	\$11,118,500

(Continued from first page.)

from people concerned about their families who were living with poor water supplies – both in terms of quality and quantity. And I know full well the frustrations that thousands experience every day as we fight to secure our right to develop the Missouri River for the benefit of our state's citizens.

Despite these challenges, North Dakota has experienced incredible progress in the “water world.” Through steadfast dedication and a cooperative spirit that I've seen from my predecessors, countless individual citizens, and officials at all levels of government; we have accomplished the seemingly impossible. Today, all of North Dakota's major population centers have permanent flood protection in place, or have projects in the works. Dozens of rural, regional, and municipal water supply systems across the state have been improved and expanded to serve hundreds of thousands of our citizens with clean, reliable water supplies. And I am very proud of the fact that we have continued to manage our water resources in a way that supports the economic well-being of the state, while also protecting it for generations to come.

From a personal perspective, I would like to express my gratitude to my predecessors who helped me develop as a professional over the years, and gave me opportunities to advance to this point in my life. Thank you to Governor Hoeven and Governor Dalrymple for entrusting me with this responsibility. Thank you to the Water Commission members and all of the agency's staff. Your dedication, commitment, and professionalism in what has been an incredible and challenging time in our state is unparalleled. And most importantly, I want to express my sincerest thanks to my wife Lunette and my family for your years of unwavering support.



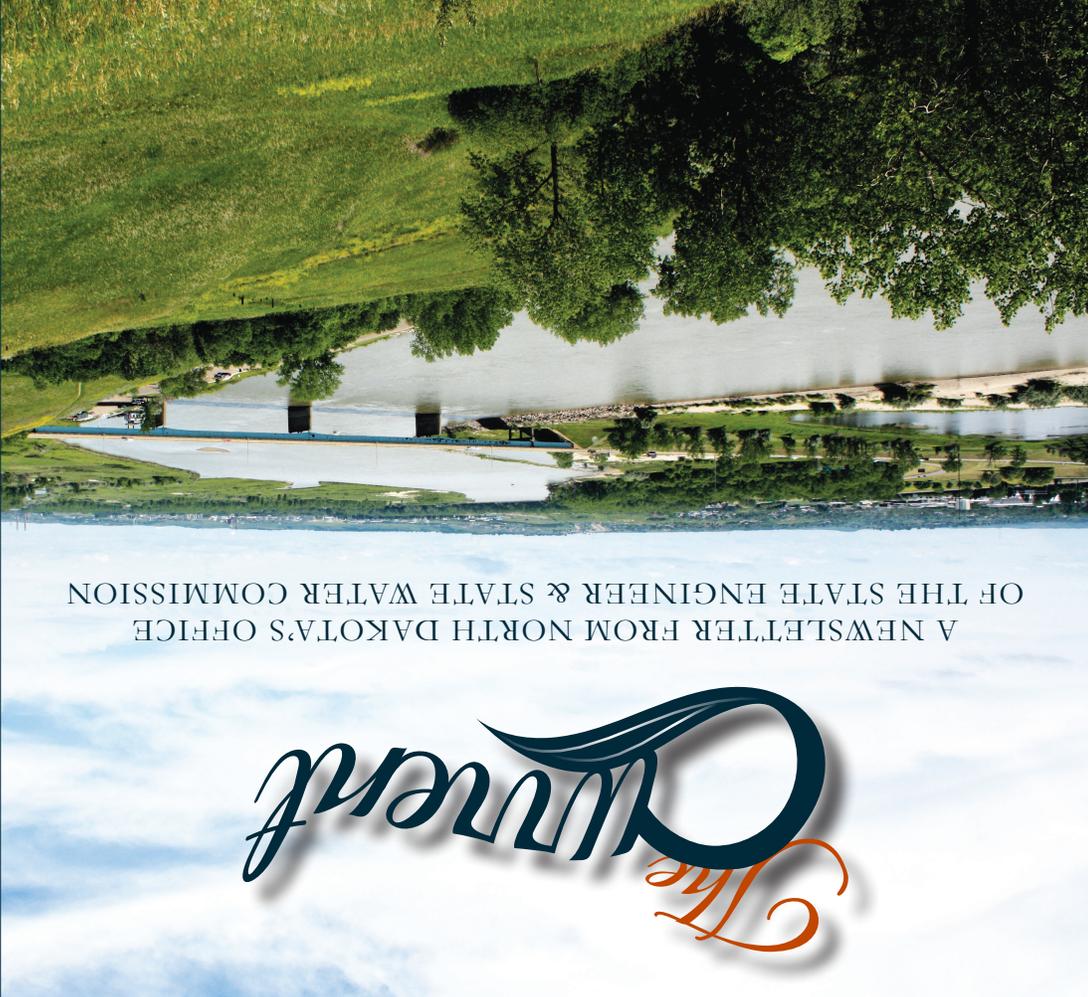
Todd Sando
State Engineer and Chief Engineer-
Secretary





NORTH DAKOTA STATE WATER COMMISSION

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- And Much More!