

Garland Erbele, P.E.
State Engineer &
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2018 Issue III

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

Since the State Water Commission (SWC or Commission) was created by legislative action in 1937, it has long served as an authority to investigate, plan, construct, and develop water-related projects. The Commission consists of the Governor as chairman, the Commissioner of Agriculture as an ex-officio member, and seven members who are appointed by the Governor to serve terms of six years each (Current Commission members are featured in the November 2017 edition of *The Current*, available on our website). Of the Commission's many responsibilities, perhaps its most critical duty is to serve as a mechanism of financial support to water-related projects throughout North Dakota.

Given the financial responsibility of the commission, it was determined at April's Commission meeting that the formation of subcommittees would be beneficial to Commissioners and SWC staff alike. The main objective of the subcommittees is to provide a means for the Commissioners' evaluation of projects earlier in the review process. In particular, subcommittees will be involved in project reviews in early planning stages and when projects request cost-share. As in the past, cost-share approvals will be determined at public Commission meetings.

The subcommittees wasted little time getting involved, when in May, Commission members participated in project reviews as part of the 2019 Water Development Plan. Developed ahead of each new biennium, the Water Development Plan includes a comprehensive water project inventory for North Dakota, and ultimately serves as the foundation of the SWC's budget request to the Governor and Legislature. Commissioners worked with SWC staff to review projects and studies that were submitted as part of the project inventory effort. Projects were reviewed for potential cost-share eligibility, and project types were assigned to each submittal for prioritization later this year.

(continued)

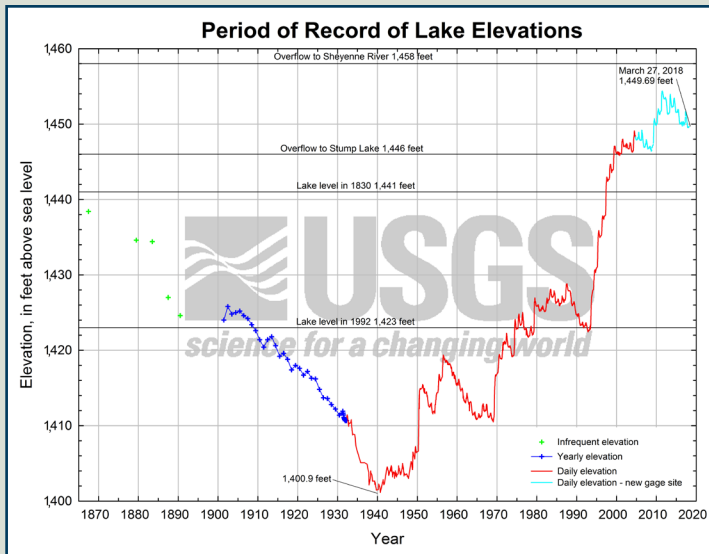
Can You Find The Water Drop?



This water drop is hidden
somewhere in this issue.

Devils Lake Flooding

UPDATE



DLOMAC DISCUSSED DEVILS LAKE OUTLETS

In April, the Devils Lake Outlet Management Advisory Committee (DLOMAC) held their annual meeting in Carrington at the Garrison Diversion Conservancy District Headquarters. The 17-member DLOMAC meets on at least an annual basis to review hydrologic conditions and outlet operations of the previous year, discuss climatological outlooks for the current year, receive updates on outlet projects, and discuss how best to manage the outlets to balance upstream and downstream needs.

The DLOMAC is a legislatively-created group that draws its membership from the Devils Lake region, downstream of the outlets to the Red River, as well as Minnesota and Manitoba.

At the April meeting, the DLOMAC expressed their gratitude for how effective the outlets have been at reducing lake levels. The DLOMAC recommended that the State Water Commission operate the outlets under the same water quality and flow constraints as they were in 2017. But in the event that Devils Lake drops to a level of 1,448' in 2018, the group will meet again, and have additional discussions on target levels for sulfates in the Red River.

After reaching the impressive milestone of discharging over 1,000,000 acre-feet of water from Devils Lake between 2005 and 2017, the Devils Lake outlets began operating for the 2018 season to once again provide flood relief to the people of the region.

On May 9, the West Devils Lake Outlet began operation, discharging approximately 125 cubic feet per second (cfs) into the Sheyenne River. The East Devils Lake Outlet underwent maintenance and repairs in the first part of the season and began operating on May 24.

Operation of the Devils Lake outlets is constrained by several factors; the 250 cfs maximum discharge of the West Devils Lake Outlet, the 350 cfs maximum discharge of the East Devils Lake Outlet, targets for combined sulfate concentrations of Devils Lake water with the Sheyenne River, high flow limitations at various locations on the Sheyenne River above Lake Ashtabula, and the maximum drawdown levels for the two outlets (elevations 1,445' and 1,446' for the West and East Devils Lake outlets, respectively).

The winter of 2017-2018 was a significantly drier period than what began as a wet cycle in 1993. It is expected that lake inflows from runoff will be minimal, resulting in a lower peak elevation for the lake. If lake inflows remain below average this summer, the outlets are expected to make significant headway on removing further floodwaters.

“North Dakota has been fortunate with how well the outlets have worked to lower the lake.” said Craig Odenbach, Water Development Division Director at the State Water Commission. “I have been impressed by the success of this project, and the hard work of agency staff. I am hopeful that we will make some real progress on further reducing the lake this year.”



NEW HIRE

JEREMY MCLEOD Water Resource Engineer II



The State Water Commission recently hired Jeremy McLeod, Water Resource Engineer, in the Water Appropriation Division. As part of his job responsibilities, Jeremy will provide engineering recommendations for temporary and industrial permits. He was previously employed with Knife River Corporation as a Project Manager/Estimator.

Jeremy attended the South Dakota School of Mines and Technology and earned a Bachelor of Science Degree in Civil Engineering. He was born and raised in Bismarck, ND and continues to make Bismarck his home with his wife Kendra and beloved dog Nalah.

Jeremy is an avid sports fan and enjoys participating in several activities. He plays indoor soccer, hockey, softball, golf, bowling, and basketball. He also enjoys spending time with his wife at their cabin in Riverdale, ND and can often be found fishing at the lake.

COURTNEY EVONIUK Administrative Assistant I



In May, Courtney Evoniuk accepted a full-time position as an Administrative Assistant in the State Water Commission's Water Appropriation Division. Her job responsibilities include, processing temporary water permits, drafting conditional and perfected water permits, coordinating mailings, answering phone calls, and providing customer service on behalf of the division.

Prior to working at the Water Commission, Courtney earned a Bachelor's of Science Degree in Paralegal. After acquiring her degree, she accepted a position at Pagel Weikum Law Firm in Bismarck. She was employed by the firm for two years.

Courtney was born in Belfield, ND. She spent her childhood in various places around North Dakota, Colorado, and Germany as a result of her Dad's military transfers with the Army. She now resides in Lincoln, ND with her daughter Rien and her boyfriend Austin. Courtney enjoys spending time with her family, along with hunting, fishing, and four-wheeling.

Missouri River Splash



Jessie Wald and Ashley Persinger at the State Water Commission booth.

The annual Missouri River Splash event took place on Thursday, May 19. The event was moved indoors due to rain, but despite the weather conditions, it was deemed a very successful day. Several agencies and organizations gathered to provide kid friendly activities that featured the importance of water education and water safety.

The Water Commission emphasized the importance of "Dam Safety" and to "Keep Your Beaches Clean." These educational public awareness campaigns focus on the dangers of low head dams and explains the consequences of littering and possession of glass containers on sovereign lands.



Dam Safety

Educational safety signs have been distributed to be installed at known low head dams around the state. Low head dams can create dangerous conditions that recreational river users may not be aware of or may underestimate. Under the right conditions, water flowing over the dam can cause a "roller effect" on the downstream side of the dam. Strong recirculating currents can trap and drown boaters, swimmers, or other water users. The Water Commission still has free dam safety signs available for low head dam owners. For more information regarding safety at dams, the free dam safety signs, and sovereign lands, please go to www.swc.nd.gov.



NDCMP INTERNSHIPS

North Dakota Cloud Modification Project (NDCMP) pilot and meteorologist internship programs provide future college graduates with operational cloud seeding experience so that they will be hireable as pilots-in-command and radar meteorologists for upcoming projects. Interns, mentored by pilots and meteorologists, are given real world experience on a project that operates 24 hours a day, 7 days a week for 92 days during the summer. Experience, coupled with an emphasis on teamwork and communication, which is valued by future employers.

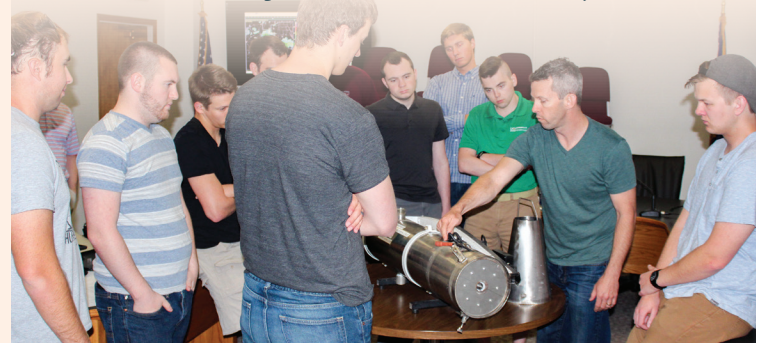
The Pilot Internship Program (PIP) began in 1974 with a \$274,000 grant from the National Science Foundation to the University of North Dakota (UND) for an “experimental project for training pilots in weather modification.” The program was instantly successful, enrolling 70 students through the fall semester of 1976. That year, the North Dakota Weather Modification Board entered into contract with UND to employ 14 interns on its summer cloud seeding program. Fast-forward 43 years, and at the beginning of the 2018 NDCMP season, 378 student pilots have participated in the program. A significant number of them parlayed their intern experience to programs in North Dakota and around the world as weather modification Pilots-in-Command (PICs).

The PIP is set up through a Memorandum of Understanding (MOU) between the Atmospheric Resource Board (ARB) and UND. To qualify, students must possess multi-engine, commercial, and instrument ratings. They must also complete AtSci 252, a four-credit course offered in the UND Atmospheric Sciences Department, focusing on cloud seeding science and operations. Students completing these requirements may apply for the internship and go through the interview and selection process. Successful applicants

are placed as co-pilots in one of eight aircraft operated for cloud seeding operations in western North Dakota each summer. Each has an opportunity to rotate through other aircraft types employed on the project to maximize their experience.

Intern meteorologists must be graduate or undergraduate students pursuing a degree in meteorology or atmospheric science. Successful applicants are placed either in the weather radar facilities in Bowman or Stanley, or as the intern forecaster in Bismarek. Similar to the pilots, meteorologist interns are rotated through each of the three offices to gain more breadth of experience. Since the inception of the meteorology internship program in 1996, 59 students have participated, many returning as radar meteorologists after receiving their college degree.

Over more than 40 years, interns have played an important role in the successful application of cloud seeding technology in North Dakota. This symbiotic relationship between intern training and future workforce development has served the state very well.



NDCMP interns learning about the Lohse Cloud Seeding Generator.

Water Commissioner
Hosted Basin Meetings

July
16-25

The State Water Commission will be conducting a series of meetings throughout the state in July to facilitate local participation in the water development planning process per NDCC § 61-02-01.3. The meetings will be located within the state's seven major drainage basins, including the upper and lower Red River, James River, Mouse River, upper and lower Missouri River, and Devils Lake basins. The meeting locations, dates, and times are as follows:

JULY
16
9am

DEVILS LAKE BASIN

Primary Host – Commissioner Richard Johnson
Ramsey County Courthouse / Lower Level Meeting Room
524 4th Ave NE, Devils Lake, ND 58301

JULY
16
3pm

LOWER RED RIVER BASIN

Primary Host – Commissioner Michael Anderson
Grand Forks County Office Building / 6th Floor Meeting Rooms
151 S 4th St, Grand Forks, ND 58201

JULY
17
10am

JAMES RIVER BASIN

Primary Host – Commissioner Katie Andersen
City Hall / Lower Level Conference Room
102 3rd Ave SE, Jamestown, ND 58401

JULY
17
4pm

LOWER MISSOURI RIVER BASIN

Primary Host – Commissioner Leander McDonald
United Tribes Technical College / James Henry Gymnasium
3315 University Drive, Bismarck, ND 58504

JULY
23
3pm

MOUSE RIVER BASIN

Primary Host – Commissioner Jason Zimmerman
County Administration Building / Rooms 106 & 108
225 3rd St. SE, Minot, ND 58702

JULY
24
9am

UPPER MISSOURI RIVER BASIN

Primary Host – Commissioner Mark Owan
Williston Research Extension Center / Ernie French Center
14120 Highway 2, Williston, ND 58801

JULY
25
10am

UPPER RED RIVER BASIN

Primary Host – Commissioner Matthew Pedersen
Gaukler Family Wellness Center / Room 207
733 8th Ave. SW, Valley City, ND 58072



COMING

COMMISSIONER'S
CORNER

SOON!



The SWC is proud to announce that in upcoming issues of the Current, we will be presenting a new section called, Commissioner's Corner. Each edition of the newsletter will now feature an article written by a Commission member. Commissioner Richard Johnson, Devils Lake Basin, will be highlighted in the next issue.

Commission Meeting Approvals

At the Commission meeting held on **June 14, 2018**, the State Water Commission approved multiple cost-share requests.

Reservoir 9 and Silver Springs Water Supply	\$1,189,150
Lower Heart River Flood Risk Reduction	\$280,000
City of Minot SWIF Reallocation	\$368,778
Lower Yellowstone Irrigation District	\$692,500
Northwest Area Water Supply	\$1,815,000*
Northeast Regional Water District Expansion	\$1,900,000*

*Federal MR&I Program Funding

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In addition, Commissioners will be hosting meetings in their respective drainage basins in July. During these Commissioner-hosted basin meetings, project sponsors and the general public will have an opportunity to interact with Commissioners and staff in-person.

In an effort to ensure that we use water-related resources and funding in the most effective and efficient manner possible, it continues to be one of our long-term objectives to make personal interactions a part of our planning process. Public input plays an increasingly fundamental role in future water development, and I look forward to a continued interaction with North Dakota's water community.

David Cook



NORTH DAKOTA STATE WATER COMMISSION

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- Up Coming Meetings
- Current Agency Efforts & Activities
- News Releases
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