Photo Courtesy: ND Parks & Rec
Des Lacs NWR Scenic Backway

The Current

2016 Issue IIII

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

Garland Erbele, P.E.
State Engineer &
Chief Engineer-Secretary

In late July I had the opportunity to travel throughout North Dakota with Water Commissioners and staff as part of the agency's 2016 Commissioner-hosted basin meetings. At those meetings, we encouraged project sponsors to give brief presentations about the water projects they're currently pursuing, or those that they submitted to the Commission as part of the 2017-2019 Water Plan update and budgeting process.

One obvious benefit of this type of meeting format is that it provides cities, water boards, rural and regional water supply systems, counties, private citizens, engineering firms, and Legislators with an opportunity to have one-on-one discussions with Commission members and staff regarding water-related projects or challenges that are most important to them. In addition, the basin meetings were an excellent opportunity for me to meet members of the water community, and to gain a better understanding of what's happening in their respective basins.

At each of the meetings, I noticed a recurrent theme was the gratitude water project sponsors felt for the financial assistance the state was able to provide in recent years due to increased revenues available because of oil development. With a current project budget of just over $1 billion, the State Water Commission has had the opportunity to address the needs of a multitude of projects; from major water supply, to flood control, and numerous smaller projects. Many of which would have been out of reach without the tremendous influx in oil revenue.

What I also heard was a recognition among meeting attendees that times have changed. As part of our Water Plan update and budgeting efforts for the 2017-2019 biennium, the State Water Commission identified about $1.5 billion in financial needs for water projects around the state. Of that total, just over $900 million could be eligible for cost-share assistance from the State Water Commission.

continued

Can You Find The Water Drop?

This water drop is hidden somewhere in this issue.

2016 COMMISSIONER HOSTED MEETINGS A SUCCESS

From July 25-28, the North Dakota State Water Commission hosted stakeholder meetings across the state. The meetings were intended to promote and encourage increased local water project sponsor participation in the state's Water Plan update process, and agency biennial budgeting efforts.

In 2013, the Legislative Assembly passed House Bill 1206 (NDCC 61-02-01.3), requiring that the Water Commission schedule commissioner-hosted meetings within the state's six major drainage basins - the Red, James, Mouse, lower and upper Missouri River, and Devils Lake basins.

Depending on location, two to four Commissioners were present at each of the basin meetings, along with State Engineer, Garland Erbele; Planning and Education Division Director, Patrick Fridgen; Water Development Division Director, Craig Odenbach; and other Water Commission staff who assisted with meeting logistics.

The basin meetings were well attended, with representatives from cities, water boards, rural and regional water supply systems, counties, private citizens, engineering firms, and the Legislature – all participating in the process.

One of the key components of the meetings was to provide an opportunity for project sponsors to present their projects to Commissioners and staff. A common theme to the presentations and comments from meeting attendees, was gratitude for the State Water Commission's exceptional support of water projects throughout the state. Attendees also frequently expressed their gratitude for the Commissioners hosting meetings within their respective regions of the state.

While some discussion was held over existing projects that are underway during the current biennium, meeting attendees primarily focused on funding needs for projects in the upcoming 2017-2019 biennium and beyond.

At each meeting, Water Commissioners and staff discussed the expected funding environment for the 2017-2019 biennium. The State of North Dakota funds the vast majority of water development projects through the Resources Trust Fund, which is funded by a portion of the state's oil extraction tax. Therefore, with the recent drop in oil revenues, it is expected that there will be less available funding for water development projects during the next budget cycle.

At the same time, the number of new projects identified during the Water Plan update process already exceeds those received in the 2015-2017 biennium. As a result, it is highly unlikely that sufficient funding will be available to meet all of the project financial needs that exist for the 2017-2019 biennium.

To meet those funding challenges, the Water Commission, working with the Governor's Office and State Legislature, will be using the state's Water Project Prioritization Guidance Policy, developed at the legislature's request, to allocate financial resources for the next biennium.

On behalf of North Dakota's Water Commissioners, State Engineer Garland Erbele, and the Water Commission's staff, we would like to express our sincere gratitude to everyone who attended the Commissioner-hosted meetings. Your participation, dedication, and interest in North Dakota's water development and management efforts are greatly appreciated.

RETIREMENT

LINDA WEISPFENNING
Planning & Education Division

Congratulations to Linda Weispfenning on her retirement. Linda began her employment with the State Water Commission in the Planning Division in 1979. Her career was filled with integrity and dedication while she served the people of North Dakota for 37 years. We would like to wish Linda a well-deserved retirement filled with health and happiness.

NEW HIRE

JIM SORENSON
Water Resource Program Administrator I

Jim Sorenson began his employment in August in the Appropriations Division at the State Water Commission as a Water Resource Program Administrator I. Jim is originally from Pierre, South Dakota and recently resided in New Mexico where he retired from the Air Force, then provided specialized I.T. Support. Jim is currently enrolled in the online program with the American Military University and is completing his Bachelor's degree in Environmental Studies with an emphasis on Fish and Wildlife Management. He enjoys the outdoors, hunting, fishing, and spending time with his wife Tobie and his 5 year old son, Conner.

AWARD

JOHN PACZKOWSKI
Service Member Patriot Award

Kevin Iverson with the Employer Support of the Guard & Reserve (ESGR) presents John Paczkowski the Patriotic Employer Award, who was nominated by Jared Huibregste.

John Paczkowski, Regulatory Division Director at the State Water Commission, was recently honored with the Service Member Patriot Award. Jared Huibregste, Assistant NFIP Coordinator in the Regulatory Division, nominated John for this honorable award. "John has always been very supportive of my role in the National Guard," said Huibregste. "I greatly appreciate John's respect, professionalism, and support in allowing me to pursue my commitment to the guard while I also continue to fulfill my duties at the State Water Commission."

The Patriot Award, presented by the Office of the Secretary of Defense, recognizes efforts made to support citizen warriors through a wide-range of measures including flexible schedules, time off prior to and after deployment, caring for families, and granting leaves of absence if needed.

CONTINUED - OFFICE OF THE STATE ENGINEER & STATE WATER COMMISSION

Current projections suggest that new revenues available for water development in the upcoming biennium could be in excess of $300 million. If that turns out to be the case, a tremendous amount of progress can still be expected. Therefore, I remain confident that through the cooperative efforts of the Water Commission, Governor's Office, Legislature, and water community, we will be able to advance many of North Dakota's highest water development priorities for the benefit of generations to come.

Garland Erbele
State Engineer and Chief Engineer-Secretary

NEW WATERSHED DELINEATION TOOL DEVELOPED TO ASSIST HYDROLOGISTS

Damon Grabow
Investigations Section

In the course of their duties, the staff of the Water Commission are well-known for identifying a problem, and then coming up with a solution to that problem. This approach is typified by the work on the development of a Non-Contributing Analysis (NCA) tool, which was created in order to simplify watershed analysis.

The first step in deciding whether or not a proposed surface drain project will need a permit, is determining the area of the watershed drained by that project. Similarly, in order to calculate how high a river will get if a storm drops six inches of rain over a watershed, it is also necessary to establish the area that will contribute to the flows at that spot in the river. The NCA tool quickly and efficiently determines whether an area is contributing to a watershed or not.

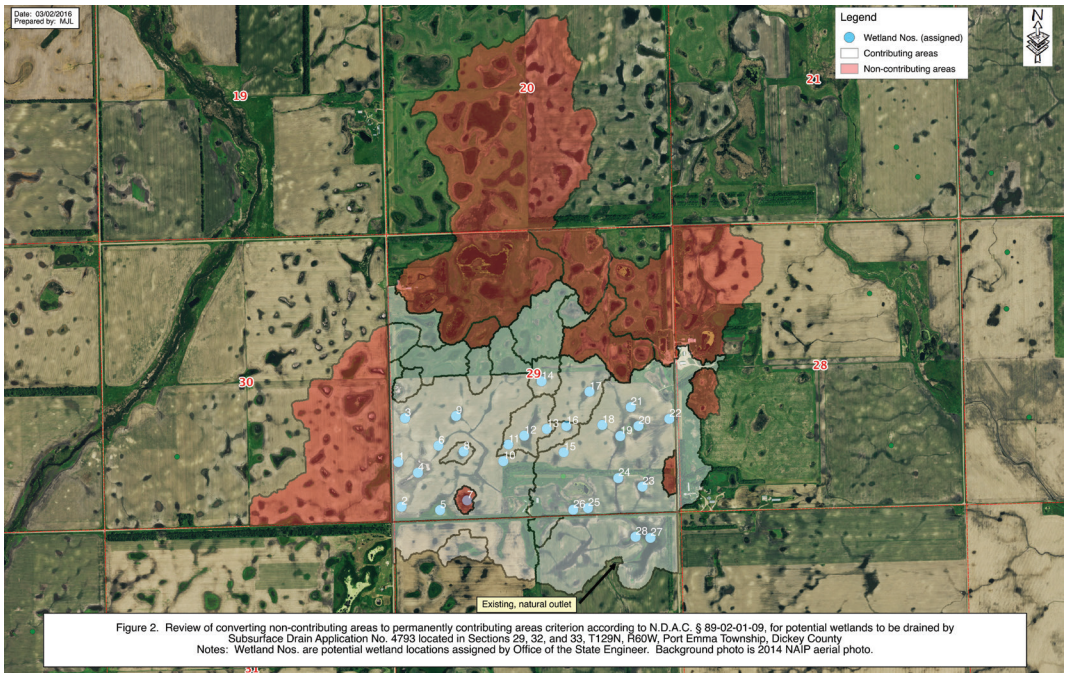
Non-contributing areas in watersheds can have significant impacts on the total volume of water reaching an outlet of that watershed. Prior to the NCA tool, professionals would have to painstakingly examine aerial photos, Digital Elevation Models (DEMs), and elevation contours, with further analysis then conducted using Geographic Information System (GIS) tools. If the area of a watershed was not obvious, staff then needed to use the existing GIS tools to identify the area more precisely; a process that could take days, depending upon the complexity of the watershed.

Damon Grabow, a Water Resource GIS Engineer in the Investigations Section, whose duties include developing GIS tools, noticed that staff members in the agency were having to put a lot of effort into identifying if a watershed was contributing or non-contributing. "My colleagues were spending a great deal of their time just trying to figure out whether a watershed or basin was part of their project area, when working on a permit analysis or a hydraulics and hydrology study," says Grabow. "I saw an area where my background in programming and GIS provided me with the opportunity to develop a tool that I hoped would save time and effort."

The NCA tool allows staff to allocate time that was previously spent delineating a watershed area, into defining what data needs to be collected and analyzed for the process. "The NCA tool is more intuitive and responsive than the same types of tools available through other GIS platforms," said Matt Lindsay, an Engineer with the Regulatory Division. "This product has already allowed us to make better informed regulatory decisions through more detailed non-contributing analyses, and it has opened the door for more valuable tools like this to be developed by the agency in the future."

It took Grabow about a year to develop the tool and test it internally before it was ready for agency-wide use. Over the next few months, he plans on developing a user manual, as well as releasing it as a tool for public use in the Geographic Resources Analysis Support System (GRASS) program, (a free and open source GIS software suite used for geospatial data management and analysis, image processing, graphic and map production, spatial modeling, and visualization).

"I see NCA as a stepping stone to developing additional tools that will allow the Water Commission to do its job even better." said Grabow.



An example of a watershed delineated by the NCA tool.

JOINT SWC & INTERIM LEGISLATIVE WATER TOPICS MEETING HELD

Dave Laschkewitsch, Administrative Services Director with the SWC.

The State Water Commission along with the Interim Legislative Water Topics Overview Committee hosted a joint meeting on Thursday, September 22 at the State Capitol building in Bismarck. Governor Jack Dalrymple welcomed the group with opening remarks and comments while Chairman Jim Schmidt organized the meeting throughout the day.

Several presentations were delivered from various entities including, the North Dakota League of Cities, Game and Fish Department, the Attorney General's Office, Department of Trust Lands, along with numerous others. Dave Laschkewitsch, Administrative Services Director with the State Water Commission, presented a project summary update from the SWC and provided an outline of funding.

The Legislative Water Topics Overview Committee also conducted a meeting on Friday, September 23 to discuss other issues and projects. Craig Odenbach, Water Development Division Director with the State Water Commission, presented information regarding the state's legal drain policy.

The two-day meetings concluded with final motions and directives to the Legislative Council staff.

SILVER JACKETS COLLABORATE AT ANNUAL PLANNING MEETING

ND Silver Jackets Team Members

The North Dakota Silver Jackets held their annual meeting on September 8 in Bismarck. The Silver Jackets team is a collaborative state-led interagency team, continuously working together to reduce flood risk at the state level.

Michael Hall, North Dakota Silver Jackets Coordinator and State Water Commission staff member, chaired the meeting and led the discussion on current and proposed projects for the group.

"The partnership and knowledge amongst this group is superb," said Hall. "We certainly don't have all the answers, but by joining forces with multiple programs and viewpoints, we can help provide a united solution to potentially critical risks."

John Paczkowski, Regulatory Division Director, and James Fay, Investigations Section Chief, with the Water Commission presented project updates at the meeting regarding the Fargo Flood Diversion Project and Mouse River Enhanced Flood Protection Project.

ND Department of Emergency Services, the US Army Corps of Engineers, ND Game and Fish, the National Oceanic and Atmospheric Administration, along with the State Water Commission, and numerous other agencies participated in the flood risk management planning meeting, and will continue working together in the future.

On the national level, Silver Jackets teams in states across the country bring together multiple state, federal, tribal, and local agencies to learn from one another and apply their knowledge to reduce the risk of flooding and other national disasters, and enhance response and recovery efforts. There are a growing number of states currently applying the Silver Jackets approach -with the ultimate goal of having teams, in every state.

www.silverjackets.nfrmp.us

NORTH DAKOTA STATE WATER COMMISSION
900 EAST BOULEVARD AVE, DEPT. 770
BISMARCK, ND 58505-0850

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