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the VIADUCT

Lower Platte North Natural Resources District
Summer 2023

Shell Creek Group Explores Environmental Connections

High School Students working to make a local impact by sampling water in the Shell Creek Watershed had the opportunity to explore careers across the state. On Monday, April 10, a group from the Shell Creek Watershed and Lower Platte North Natural Resources District (LPNNRD) staff traveled to Lincoln to meet with multiple organizations who are working to make an environmental impact.

In attendance were seven students from the Shell Creek Watershed Monitoring Group – four from Newman Grove, and three from Schuyler; Andrea Miller, Newman Grove Science teacher; Mark Seier, Newman Grove Science teacher, Shell Creek Watershed Improvement Group (SCWIG) member and LPNNRD director; Matt Bailey, SCWIG member and LPNNRD director; Gene Wissenburg, SCWIG member; Ray Flood, SCWIG member; and LPNNRD staff – Ryan Chapman, Sydney Abbott, and Lacey Sabatka.

The group made their first stop at the Nebraska

Department of Environment and Energy (NDEE), the location of where the students' water samples are sent for complex testing. NDEE Staff discussed the importance of the work the students do and how they use their samples along with other samples collected across the state to create data that is important for making policy decisions in Nebraska. They viewed the lab where samples are tested, along with other equipment NDEE uses for data collection and analysis.



Students examining aquatic macro-invertebrates at NDEE lab.

The next stop along the tour was the University of Nebraska-Lincoln's (UNL) East Campus. UNL staff gave students a tour of the Water Sciences Lab – one of the most advanced water testing facilities in the world – where researchers perform dozens of water quality analysis such as nitrate and the presence of organic and inorganic contaminants. Following the lab, the students walked through the Arboretum and the set of Nebraska Public Media's Backyard Farmer garden and greenhouses.

The tour continued to the Nebraska *continued on page 3*

Feasibility of New Office for Landlocked Lower Platte North NRD

The Lower Platte North NRD (LPNNRD) staff and board members are discussing the feasibility of building a new office.

Located at 511 Commercial Park Road in Wahoo, the LPNNRD office is currently landlocked and does not have the space for expansion in the present location. Preliminary discussions of the potential new office began in 2022 with the Lower Platte North NRD's 19-member Board of Directors. General Manager, Eric Gottschalk explained to the LPNNRD board, "we are in a unique position where we could have the new building nearly paid for by the time we are ready to move in."

The potential new building would be located on the southwest corner of the Lake Wanhoo NRD Recreation

Area, that is currently owned by the LPNNRD. With the proposed location, the utilities are available with little or no extension costs. The area would allow for the consolidation of district assets and staff, in addition to unlimited expandability without being landlocked. The ability to design a new office that will offer more space and be built around conservative standards for energy efficiency could create a minimal footprint.

A schematic design was created for consideration by JEO Consulting Group, and distributed to board members in recent meetings. An estimated timeline will be discussed at future LPNNRD board meetings. For board meeting dates and times, please visit lpnnd.org/downloads.

Lower Platte North NRD
Board & Staff

| Board Member..... | Subdistrict |
|--|-------------|
| Lon Olson, Fremont | 1 |
| Kelly Thompson, Fremont (Chairman)..... | 1 |
| Frank Pollard, Fremont..... | 2 |
| Bill Saeger, Fremont..... | 2 |
| Dave Saalfeld, North Bend..... | 3 |
| Andrew Tonnies, North Bend | 3 |
| Chris Yosten, Schuyler..... | 4 |
| Matt Bailey, Schuyler | 4 |
| Mark Seier, Newman Grove (Treasurer)..... | 5 |
| David Lawrence, Columbus..... | 5 |
| Joe Birkel, David City..... | 6 |
| Robert Hilger, David City | 6 |
| Ryan Engel, Fremont..... | 7 |
| Ryan Sabatka, Weston (Vice Chairman) | 7 |
| Jerry Johnson, Wahoo | 8 |
| Alex Kavan, Wahoo | 8 |
| Duane Johnson, Ashland..... | 9 |
| Robert Meduna Jr., Wahoo (Secretary) | 9 |
| Thomas McKnight, Fremont | at large |

| Staff Member..... | Position |
|------------------------|--|
| Sydney Abbott..... | Education Coordinator |
| Daryl Andersen..... | Water Resources Manager |
| Tyler Benal | Water Resources Specialist |
| Jill Breunig | Bookkeeping Dept. Head/ Admin. Assistant |
| Adam Brockman..... | NRD/NRCS Technician |
| Will Brueggemann | Water Resources Technician |
| Ryan Chapman..... | Assistant Manager |
| Duke Dokulil | O&M Technician |
| Sean Elliott..... | Projects/Rural Water Manager |
| Noah Franzen..... | Water Resources Technician |
| Eric Gottschalk..... | General Manager |
| Bob Heimann..... | O & M Manager |
| Dave Moore | O & M Technician |
| Russell Oaklund.... | Lead Water Resources Specialist |
| Dave Odvody | Recreation Facilitator |
| Karen Rezac..... | Dept./Admin Assistant |
| Lacey Sabatka | Information Coordinator |
| Bret Schomer | Wahahoo Recreation Supervisor/ Water Resources Specialist |
| Drew ten Bensel | Grants/GIS Dept. Head |

| NRD/NRCS Field Office Assistant..... | County |
|--------------------------------------|-----------------|
| Kimberly Piitz | Butler County |
| Kristin Miller | Colfax County |
| Jessica Marty | Dodge County |
| Marla Milliken..... | Saunders County |

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From the Desk of
the General Manager

Simple...



Eric Gottschalk

Our Dad taught my brothers and me years ago... "Simple does not mean easy." Isn't that the truth? Take the sport of High Jump. Just run up to the bar and jump over it...simple right? But easy, not at all.

I've had the pleasure of coaching high school high jump for 19 years, trust me, this event is a very difficult and technical one to master. Hours, days and weeks of training and repetitions are performed each season by young student athletes with the simple goal of approaching that bar and jumping over it.

I have been fortunate over the years to work with some amazing young people who loved and excelled at this event to the level of qualifying to jump, with the best, at the Nebraska State Track meet. Jumpers like Suzanne Larsen, Eric Eddie, Kyle Odvody, Carissa Eddie, Mya Emerson and Garrett Grandgenett were able to master this "simple" event. Each of them, willing to endure the endless drills, pain and training needed to give them the opportunity to excel and be the best high jumper they can be.

At the Lower Platte North NRD, we also understand, simple does not mean easy. Conserving water, improving soil and water quality, and reducing the effects of flooding are simple concepts but far from being easily achieved. We will work with you to take the necessary steps and actions to achieve this simple but difficult goal with confidence, knowing your conservation efforts WILL make a difference.

I would like to tell you a little more about Mya Emerson...one of my high jumpers from two years ago. After training, competing, qualifying, and jumping a personal best at the State meet as a junior, Mya was diagnosed with a rare sinus cancer. Mya had six rounds of chemotherapy and spent eight weeks at the Mayo Clinic where she received 34 rounds of precise radiation treatments. Her goal through all of this...to be able to high jump again. After having her feeding tube removed in February, she was cleared to begin training to jump. On April 1st, 2022, not quite eight months after being diagnosed and still suffering side effects from her treatment, Mya was, once again, competing and placing at a varsity meet.



Mya Emerson

Mya, you and my other high jumpers over the years will never truly know the amazing impact you have all made on my life, thank you...The time, hard work and dedication each of you have given to "our" event demonstrates, "simple does not mean easy" but not being easy sure does make it worth it!

Eric Gottschalk, LPNDRD General Manager

NRD RECREATION EXPLORATION

1. Visit an NRD recreation area
2. Take a photo with the rec sign or landmark
3. Submit your photo to win various prizes at NRDNET.ORG/RECREATION



Shell Creek tour, continued from page 1 Innovation Campus' Greenhouse Innovation Center, where researchers have access to a state-of-the-art system for computer-controlled environment and lighting system for researching plant phenotyping. The plants are transported on conveyor belts where



Newman Grove and Schuyler students watch as a student researcher uses equipment at the UNL Water Sciences Lab.

they are provided water, while a high-tech imaging system photographs and measures the plants daily to check their progress.

On the final stop of the tour, the group visited the Assurity Center, a LEED (Leadership in Energy and Environmental Design) Gold certified building.

The building and its landscaping features numerous sustainable practices that help reduce energy consumption, conserve water and clean water. Their sustainable mission

continues behind the building to the nearby Antelope Valley project. The project was completed in 2012 by the Lower Platte South NRD, the City of Lincoln and the University of Nebraska, to promote community revitalization, flood control, water quality, and recreation.

Throughout the tour, presenters gave students a background of their education and their past experiences that have led them into environmental careers. "This tour was an outstanding opportunity for our students to be able to connect with a variety of career paths that they typically would not see in our school setting," said Mark Seier. Furthermore, Seier explained the importance of being able to physically see where staff work and the substantial equipment they use was an advantage to the students.

The tour is organized every other year for new students in the Shell Creek Watershed Monitoring program. The student group, led by Mark Seier since 2002, is comprised of teachers, high school students, and a few middle school students in Newman Grove, Schuyler and Lakeview (Columbus) schools.

Wahoo Creek Watershed Project Funding

The Wahoo Creek Watershed advances through the next phase of the project. The \$19.7 million project has the potential to reduce flood damages to agriculture, county roads and bridges, urban land, improve water quality, and enhance wildlife and aquatic habitats. Watershed operations were reestablished in 2017 by the U.S. Department of Agriculture, making the Wahoo Creek Watershed project the

first Watershed Flood Prevention Operation plan approved in Nebraska since the renewal.

The project includes ten structures in total within a 100-square-mile area in Saunders County. The Lower Platte North NRD is finishing the land rights segment of the first phase for the first three structures, with the possibility for construction to begin the end of this *continued on page 4*

Building A Connection With Nature for Students

A perfect day is almost nonexistent during Spring in Nebraska, but on the third of May, nearly 300 students had the opportunity to enjoy the perfect weather and connect with nature. Fifth and sixth grade students traveled to Lake Wanhoo NRD Recreation Area from Aquinas Catholic (David City), Bellwood Elementary School, David City Public School, East



Wahoo Elementary students learn about predators and prey during the Hunger Games session.

Butler (Brainard and Dwight), Logan View Public School (Hooper), North Bend Central Public School, and Wahoo Public School.

Students participated in sessions that included investigating wildlife behaviors; observing common Nebraska amphibians, reptiles, and wildlife; tree planting with a tractor-driven tree planter; water quality and turbidity; and fishing. The day concluded with a presentation by Wildlife Encounters, sponsored by JEO Consulting Group, where students were introduced to an alligator, joey and boa constrictor among other animals.



Students from North Bend try their hand at fishing.

The LPNNRD holds the annual Spring Conservation Sensation on the first Wednesday in May for students within the district. Registration for the 2024 event will begin in spring next year. For more information, please visit lpnnrd.org.

Scholarships Awarded to Local High School Graduates

Congratulations to Shell Creek Watershed Student Monitoring Group scholarship winners: **Mara Ranslem**, Newman Grove, has participated in the Shell Creek Watershed Monitoring Program since 7th grade. Her plans after graduation include attending UNL to major in biology, then continue to medical school to be a Physician's Assistant. **Eliza Bailey**, Schuyler, has participated in the Shell Creek Watershed Monitoring Program the last four years. Her plans

after graduation include attending Southeast Community College, majoring in Nursing and Diversified Agriculture. **Kathryn Novacek**, Schuyler, has participated in the Shell Creek Watershed Monitoring Program the last four years. Her plans after graduation include attending Northeast Community College, majoring in Veterinary Technology. The Lower Platte North NRD would like to congratulate Mara, Eliza and Kathryn, and wish them well in their future endeavors!



Groundwater Management

Nitrogen Management is a Conservation Decision

Nitrate levels in the water have shown an increase throughout the country, state, and across the Lower Platte North Natural Resources District. So, what are nitrates? Nitrates are natural compounds of nitrogen and oxygen that can pose a health risk when found in high levels of drinking water. The drinking water standard set by the Environmental Protection Agency is 10 parts per million (mg/l). Nitrates enter the water system because of runoff or leaching of fertilization, wastewater, and landfills. Nitrates are colorless, odorless, and tasteless, and cannot be detected unless water samples are laboratory tested. Nitrates are more common in private wells than in public drinking water supplies.

The map shown below is part of a statewide network of wells. This map shows the 2022 nitrate contamination and allows the LPNNRD to focus its effort on where the high level of nitrates are appearing. At the present time, LPNNRD has

two management areas within the district.

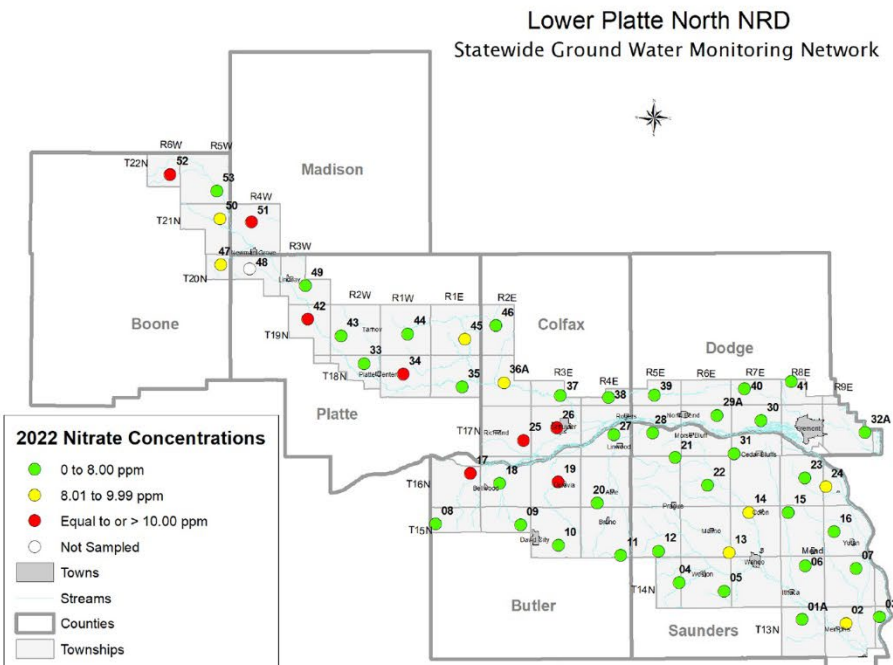
So, what happens if I have high nitrates in my drinking water? Currently, Nebraska Department of Environmental and Energy (NDEE) is offering a cost-share program on Reverse Osmosis (RO) systems. A person will need to get a water sampling from their drinking water source and have it analyzed by the State Health Lab. If the sample is over 10 ppm, they are eligible for this cost-share program. Additional information can be found on the NDEE website.



NRD staff collecting a water sample for laboratory analysis.

So, why are nitrates a concern? Nitrates can have a negative effect on children under 6 months of age and pregnant women. Drinking high nitrate water or using the water for bottle-feeding can cause methemoglobinemia (Blue Baby syndrome). Other health concerns can arise from extended exposure in vulnerable populations like thyroid disease and certain kinds of cancer.

So, what can you do to help protect the groundwater or your drinking water? The University of Nebraska promotes the 4Rs, which is the right source, right rate, right time, and right placement of fertilizers. To assist in knowing how much fertilizer to apply, a soil sample analysis is needed from a laboratory to know what is currently present in the soil. An overlooked component in applying the correct amount of nitrogen fertilizer is a realistic yield goal. That goal should be considered a 5-year average and not the last yield or the best yield. Nitrogen management is a conservation decision on protecting the groundwater.



Wahoo Creek, continued from page 3 year. The land rights – which are easements of privately owned land, ponds, mitigation, and embankments – cover approximately 974 acres in the Wahoo Creek Watershed. The ownership of the land will remain private, meaning no public access to the dams will be allowed once completed.

Federal funding for the project is approximately \$12,000,000 through the Watershed Flood Protection and Operations program. The funding is designated for planning

and design (approximately \$2,355,913), and construction costs (approximately \$9,701,200). Final construction on all dams is estimated for the next five to seven years.

The Lower Platte North NRD will provide cost-share to landowners in the Wahoo Creek Watershed and Shell Creek Watershed for best management practices targeting water quality and E. coli. More information about this program will be released soon.