

# O&M Team Excels

By Kimberly Cook

The Garrison Diversion Conservancy District (Garrison Diversion) Operations and Maintenance (O&M) unit excels each year, keeping the federal Garrison Diversion Unit facilities in good working condition. Garrison Diversion is the local agency responsible for the implementation of the federal Garrison Diversion Unit (GDU) Project, whose scope has been greatly revised over many years.

The GDU Project is the result of a federal plan with roots in the Flood Control Act of 1944 (later renamed the Pick-Sloan Missouri Basin Program), which constructed multiple dams on the Missouri River for the purpose of flood control, navigation, irrigation and hydropower. To compensate North Dakota for flooding prime farmland to create reservoirs behind the dams, the state was promised over a million acres of irrigation. However, studies indicated that the soil in northwestern North Dakota was not suitable for irrigation, according to federal irrigation standards. As a result, the Bureau of Reclamation

(Reclamation) revised the diversion plan proposing instead to take water from Garrison Dam and reservoir to irrigate other lands to the east, and thus became known as the “Garrison Diversion.” In 1965, federal legislation called for the construction of the Garrison Diversion Unit Principal Supply Works, which included the McClusky Canal, New Rockford Canal and Oakes Test Area. Congress later halted the project, and legislation was reformulated multiple times through the 1986 Reformulation Act and the Dakota Water Resources Act of 2000.

The state legislature created the Garrison Diversion Conservancy District in 1955 in order to establish, construct, develop, maintain and operate the GDU and all its components.

Garrison Diversion consists of 28 counties, with each county supporting Garrison Diversion’s operations by issuing a one-mill levy and electing a citizen to serve a four-year term on its board of directors. The mission of Garrison Diversion today is to “provide a reliable, high quality and affordable water supply to benefit the people of North Dakota.”



McClusky Canal

An Operations, Maintenance and Replacement (OM&R) contract is held between Garrison Diversion and Reclamation to complete O&M work on the federal facilities, which include the McClusky Canal, New Rockford Canal and Snake Creek Pumping Plant.

Garrison Diversion employs a highly skilled and valuable O&M team that includes a professional engineer, master electricians, certified diesel mechanic, painting and coating specialists, vegetative management specialists and multiple heavy equipment operators. In addition, the majority of full-time O&M employees have their CDL (commercial driver's license). A safety coordinator promotes safety procedures and implements a comprehensive safety program to ensure a safe work environment for all employees. O&M employees are located in Carrington, McClusky, New Rockford and at the Snake Creek Pumping Plant at Coleharbor.

A large fleet of dozers, loaders, backhoes, trucks and excavators, and many specialized pieces are maintained to allow for work in a variety of situations.

Expertise in canal maintenance, earthmoving and other construction areas enables the O&M staff to assist federal and state government agencies like the Department of Water Resources, Reclamation, North Dakota Game & Fish, and U.S. Fish and Wildlife Service. These partnerships benefit everybody involved!

"Our O&M team is very talented and capable of tackling any task we throw at them," says Garrison Diversion Engineer Ryan Anderson. "We get a lot of compliments on the quality work they do."

In 2023, O&M workers accomplished many tasks, performing routine maintenance and special jobs. Routine tasks include weed control, water operations and road maintenance. The McClusky Canal must also be maintained to operate properly.

Water is delivered through the McClusky Canal each year to be used for livestock watering, water for wildlife mitigation areas, water quality improvements, irrigation, recreation, and fish and wildlife. Last year, approximately 17,000 acre-feet of water was delivered through the McClusky Canal.

Special jobs vary each year depending on the established work plan and the needs of cooperating agencies. In 2023, employees continued a major reconstruction project started in 2016 to repair a one-mile stretch of the canal side slope, from mile marker (MM) 22 to MM 23, where the failing side slopes have reduced the water flow in the canal downstream of MM 22, approximately seven miles south of Turtle Lake. The reduced flows impact irrigators downstream and present challenges in maintaining the Chain of Lakes at desired elevations. The slide repair is being completed in cooperation with Reclamation.



*The early stages of construction in building a safe public access to the Engel's Point Wildlife Management Area.*



*The completed public access road has been rip-rapped, graveled and cut to finish grade.*

O&M workers are flattening the currently failing 2-to-1 side slope to a more stable 4-to-1 slope. Overall, a total of 2.6 million cubic yards is estimated to be moved over the course of five to six years. In 2023, approximately 110,000 cubic yards of spoil material were removed from the area to stabilize the slope. To date, over 95% of the spoil has been removed. Once the spoil is removed and slope laid back, silt fence is installed and the area seeded to help with erosion control and establish vegetation. This major project is important to enhancing the overall function of the McClusky Canal.

In a partnership with the state Game and Fish Department, Garrison Diversion built up and repaired the access road to Engel's Point Wildlife Management Area (WMA) to make it suitable for safe public access. The road project included rebuilding the flooded base of the road and construction of a new road segment from the point where the existing county road enters the lake to the south boundary of the property. Rip rap shoring was also placed along the road to prevent wave action erosion.

The Department of Water Resources enlisted Garrison's Diversion's assistance with cleaning out the east and west end outlet channels at Devils Lake. In coordination with the Department of Environmental Quality, Garrison Diversion also completed a Voluntary

Response Action Plan and removed bituminous material from the New Rockford shop location.

Reclamation completed a facilities review of the Snake Creek Pumping Plant in accordance with the Reclamation Manual, Review of Operation and Maintenance (RO&M) Program and the Examination of Associated Facilities. In conclusion, it was noted the "management of the pumping plant facilities and the operation and maintenance requirements are extensive. Garrison Diversion's plant operator and staff should be recognized for the exceptional efforts put towards operating and maintaining the nearly 50-year-old pumping plant, which continues to provide its benefits to the State of North Dakota."

Garrison Diversion staff takes pride in what they do and they consistently hit the mark, successfully completing routine O&M work and special projects vital to maintaining the GDU features. The purpose of these features varies from supplying water for irrigators to sustaining recreation areas and wildlife management locations. Though the functions of the GDU features vary, the importance of maintaining them remains the same.

To learn more about Garrison Diversion, visit [www.garrisondiversion.org](http://www.garrisondiversion.org) and follow us on Facebook by searching GDCD.ND.

## Deadline Approaching

The **Water Supply Assistance Grant Program** provides funding assistance to offset the costs of new customer hookups to a rural water system or district. The grant program also aids water systems or districts with extraordinary OM&R projects that will impact the delivery of water to users, introduce health and safety issues or bring potential harm to other infrastructure if not repaired.

Eligibility requirements state the applicant must reside within one of Garrison Diversion's 28-member counties, must be or have a member sponsor that is a political subdivision (municipality or rural water district), and a

municipality must have a population of 5,000 people or less being served.

The deadline to apply for funding to assist with new customer hookups is May 1, 2024. There is no deadline on extraordinary OM&R projects, as these will occur on an as-needed basis. Grant guidelines and applications can be found on Garrison Diversion's website, <https://garrisondiversion.org/focus-areas/recreation-programs/>

For additional information or questions related to the Water Supply Assistance Grant Program, please contact Garrison Diversion at 701-652-3194.