

## Implementation Activities

### Bonanza Valley Groundwater Management Area Plan

Implementation highlights – March 18, 2021

#### 2016

- Reviewed aerial photos to bring into compliance operations where irrigation systems were operating but no permit existed (began 2016, ongoing).
- Contact individuals who requested and received a preliminary well notification letter but no permit was on file. (began 2016, completed 2017).
- Held a plan kickoff meeting.

#### 2017

- Installed one additional stream flow station.
- Installed four (4) new observation wells in cooperation with the United States Fish and Wildlife Service, at the sites of four (4) new USFWS installed wetland water level monitoring stations.
- Held one Project Advisory Team meeting.

#### 2018

- Installed two climate stations: One at the Sedan Brook Prairie SNA near Brooten and the other at Ashley Creek near Westport.
- Promoted Rosholt Experimental Farm's field days using DNR's GovDelivery email list (2018, 2020).
- Held two Project Advisory Team meetings, including one that was a field demonstration of DNR's water monitoring programs on the banks of the North Fork of the Crow River.

#### 2019

- Worked with Kandiyohi County to develop a Geologic Atlas. Part A (geology) was completed in 2019 and Part B is underway.
- Recruited one additional precipitation monitor in the Bonanza Valley GWMA through email and media promotions.
- Modified (improved clarity of) the preliminary well notification letter sent to permit applicants very early in the application process.
- Promoted water storage and aquifer recharge by developing and distributing an interactive, online map; "Groundwater Recharge Through Wetland Restorations" in the Bonanza Valley GWMA.
- Researched the use of remote sensing (satellite) technology to estimate irrigation water use. The method was determined to not be useful for the Bonanza Valley GWMA due to technical limitations including cloud cover and difficulty in calibration.

- Improved DNR's online permit program "MPARS" to make it more efficient for applicants to input necessary data.
- Held one Project Advisory Team meeting.

## 2020

- Promoted "lessons learned" about water conservation from working farms, municipalities, industries and other water users in the GWMA using social media, videos, media releases and web page updates.
- Confirmed locations of irrigation wells and irrigated fields in preparation for groundwater flow analysis.
- Included descriptions of water conservation practices and links to other water conservation organizations in the GWMA on the project web page.
- Supported the Rosholt Experimental Farm's community outreach by promoting field days using DNR's GovDelivery email list (2018, 2020).

## 2021

- Continue to develop conceptual model for groundwater flow analysis.
- Created new, draft links to groundwater and stream flow monitoring data through the online "Watershed Health Assessment Framework" mapping tool.
- Opened participation in DNR's Irrigation Metering project to Bonanza Valley Irrigators.
- Invited U of M Extension to provide irrigation water conservation research update to Bonanza Valley GWMA team.
- Held one Project Advisory Team meeting as of spring, 2021.