

# THE ATMOSPHERIC RESERVOIR

*Examining the Atmosphere and Atmospheric Resource Management*

## NEW GRAPHICAL USER INTERFACE FOR PRESENS

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In an era where more data is required to make better decisions, the State of North Dakota is implementing new and innovative ways to collect it. PRESENS is an acronym for Pushing REMote SENSors, but also is meant to convey a sense that the ND Department of Water Resources (DWR) has a "presence" across the state. To date, DWR has deployed over 450 PRESENS sites, each one collecting data that could include water levels, barometric pressure, soil moisture and temperature, precipitation, and air temperature.

The PRESENS system collects and sends in over 40,000 data points each day via cellular or satellite networks. Recently, the DWR has added a web interface to display PRESENS data in a useful way to the public through the DWR website. The data is also available for download from the website.

To access PRESENS data through the DWR website:

- Go to "www.dwr.nd.gov"
- Click on the "Information & Education" tab
- Select "Maps/GIS & Data"
- Scroll down and click on "Water Resource Sites"
- Select the "Location" and "Data Type"

During a rain event, every 0.01 inches of rain is counted and summed over each 5-minute period by the PRESENS tipping-bucket rain gauge. This data is then sent back to the servers in Bismarck every 15 minutes during the precipitation event to provide near real-time precipitation amounts.

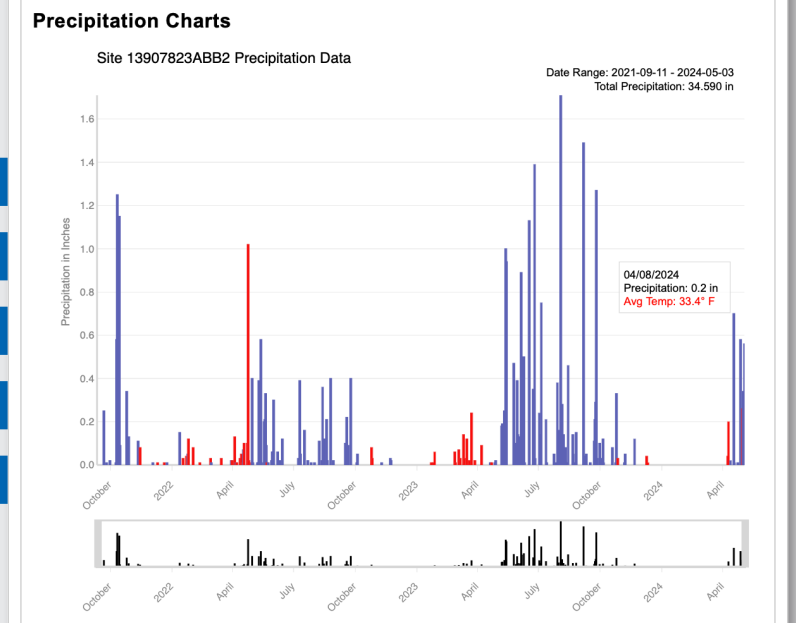
There are currently 33 PRESENS sites that measure soil and precipitation data. This summer, DWR field technicians will be installing additional PRESENS sites across the state. The long-term goal is to cover our state with a dense network of PRESENS sites and DWR is off to a good start!

<b>Site:</b>	139-078-23 ABB2	<a href="#">Download All Data</a>
Site Index:	130904	
County:	Burleigh	
Basin (HUC 6):	Lake Oahe	
Sub Basin (HUC 8):	Apple Creek	
Coord (Lat, Long):	46.85016, -100.488004	
PLSS Township:	T139N R078W Section 23	
Period of Record:	2019-09-04 - 2024-05-02	

Ground Water Data | Atmospheric Data | **Precipitation Data** | Soils Data

### Precipitation Data

Precipitation Table | **Precipitation Charts**



**Please Note:**

All precipitation data is raw and has not been reviewed. Data may not represent true measurements at the time of collection. Precipitation bars on the precipitation chart are marked in red when the temperatures recorded at the times when tips occurred, averaged over the day, is less than 36° F, likely indicating the possibility of frozen precipitation. The NDDWR uses a Texas Instruments TR-5251 tipping bucket rain gauge with no heater. Potential influencers include, but are not limited to, cold weather, debris in the collector, excessive wind, rain gauge calibration drift or equipment malfunction. The tipping bucket rain gauge cannot measure snowfall. Whenever temperatures near freezing, the tipping bucket may not report the correct rainfall. If there is snow on the rain gauge, it may melt on a different day than the precipitation fell. The use of rainfall data between October and April should be carefully examined along with external factors to determine if the data should be used or discarded. More information about the Texas Instruments TR-5251 rain gauge can be found [here](#).