

Natural Resources Conservation Service

Soil and Plant Science Division

Soil Survey Region 10



MLRA Soil Survey Office Bismarck, North Dakota

USDA–NRCS and U.S. Fish and Wildlife Service Collaborate on Salinity Investigation

Purpose

Soil scientists from the NRCS Bismarck MLRA soil survey office and staff from the U.S. Fish and Wildlife Service recently collaborated on a project to map salinity levels at the Beaver Creek Wildlife Management Area in north-central North Dakota. A brine spill during past oil activity on the property created areas of high salinity that have been difficult to manage. A Geonics EM-38 Ground Conductivity Meter was used to map the salinity levels at three selected locations. The instrument can cover large areas quickly without the use of ground electrodes. By connecting a Yuma tablet with GPS capability to the EM-38, the team was able to collect real-time electrical conductivity (EC) data.

Key Outcomes

The staff of the U.S. Fish and Wildlife Service plan to use the EC data and the resulting map as a management tool for the long-term resource concerns in the Beaver Creek Wildlife Management Area.



Right to left: Mike Rabenberg, USFWS; Perry Sullivan, NRCS; and Kirsten Brennan, USFWS.

