BOARD OF WATER AND SOIL RESOURCES

Climate Resiliency: Water Storage and Treatment

What is water storage?

Water storage projects are sited and designed to slow down or temporarily hold back water from reentering a stream or river. Slowing down the water can reduce flooding, improve water quality, and make our landscape more climate resilient. Water storage practices include retention structures and basins, soil and substrate infiltration, wetland restoration, creation, or enhancement, channel restoration or enhancement, and floodplain restoration or enhancement.

An inlet feeds water to a structure containing an internal weir that helps control water levels in a restored wetland.

Challenges on the landscape

Minnesota is experiencing larger and more frequent and intense rainfall events, resulting in negative impacts to agriculture and infrastructure, significant erosion along riverbanks, and declining water quality.

Water Quality and Storage Program

The Minnesota Legislature passed a law in 2021 requiring BWSR to develop a program to provide financial assistance to local government units (LGUs) to control water rates and/or volumes to protect infrastructure, improve water quality and related public benefits, and mitigate climate change impacts. Projects funded by the Water Quality and Storage Program improve conditions in areas that have flooding, water quality issues, or climate change vulnerabilities. Successful applicants have developed a conceptual design for a storage location and can quantify the flow reduction benefits from the project. Some program funds are also available for modeling of storage sites and to develop conceptual project plans.

The Water Quality and Storage Program supports storage practices statewide, with priority given to the Minnesota River Basin and the Lower Mississippi River Basin. So far, 16 grants have been awarded totaling $5.5 million.

Funding: BWSR has received $19 million to date from the state's general fund to support the Water Quality and Storage Program. In November 2024, BWSR was awarded $21 million via the USDA's Natural Resources Conservation Service (NRCS) Regional Conservation Partnership Program (RCPP) to support this program.

Left to right: *A water and sediment control basin in crop field is empty in dry conditions but holds water temporarily after heavy rains; landowners pose by construction of storage basin in a Pope County ag field; grass back sediment control basin slows runoff.* **Photo Credits:** BWSR