Project Title: Side Inlet Controls to Improve Water Quality
Principal Investigator: BWSR
Co-Investigator(s): University of Minnesota, Hawk Creek Watershed Project, Brown Nicollet, Cottonwood WQB, Sand Hill River WD, Mower SWCD, MDA
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Organization(s):
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Overview: Side inlets serve as surface runoff outlets from agricultural land into drainage ditches and are very common wherever surface drainage ditches are present. These side inlets contribute sediment and concomitant nutrients and pesticides to MN's waters. Side inlet controls such as culverts and drop pipes can prevent gully erosion, control the rate of flow to ditches, and create sedimentation areas to improve water quality. Side inlet controls were identified as a key BMP in the LCMR-funded MN River Assessment Project (LMCR, 1994) and are eligible for federal and state cost chare (mechanism for widespread implementation). Current design practice does not consider water quality impacts, which this project would address. Research and demonstration are needed to quantify the benefits of this BMP on sediment, nutrient, and pesticide loading to receiving waters and to develop design guidance and outreach so that side inlet controls can be implemented on a widespread basis. Development of design guidance could then be used in TMDL implementation plans to address sediment and nutrient impairments.
Publication(s)/Report(s):