

## **Vermillion River Watershed Joint Powers Organization Watershed Management Plan Proposed Amendment**

### **Bemis Wetland Restoration Project**

An existing dam structure located in the SW  $\frac{1}{4}$ , of the NW  $\frac{1}{4}$ , of the NE  $\frac{1}{4}$  of Section 10, New Market Township, Scott County, is in imminent threat of failure. Built 50 years ago, the structure converted a pastured, Type 1/2 wetland into a Type 4/5 open water wetland with a 24-acre pool area. This pool serves to improve water quality in the Vermillion River by providing increased storage and retention of runoff from its 238-acre watershed. Increased retention time allows settling and immobilization of sediment and nutrients. It also serves to reduce runoff volumes and peak discharge rates, which reduces potential for scouring and erosion of downstream channels.

The existing outlet structure is beyond its design life and is in a serious state of disrepair. The earthen berm structure remains intact; however, there are signs of deterioration and its exact construction in terms of soils, height relative to spillway, freeboard, etc., are unknown at this time. It is reasonable to assume, however, that the neither the berm nor the outlet pipe meet current practice standards and specifications.

If the berm and outlet structure are not reconstructed, catastrophic failure is imminent. An estimated 57 acre-feet of water will be released instantly, likely resulting in significant scouring of the receiving outlet ditch and the Vermillion River (Reach 520, in Scott County) approximately 2500' downstream. The primary purpose of this project is to not only maintain but improve the water quality benefits provided by the existing structure.

The Bemis Wetland Project will be added to Figure 7.2.1: Upper Main Stem Subwatershed Management Plan, Page 112, under 7.2 Upper Main Stem Subwatershed with an original scenario budget of \$30,000. This will increase the Ten Year Total budget from \$2,387,720 to \$2,417,720. In addition, it will be added to Figure 7.10.1: Implementation Plan Table, Page 121, under Land and Water Treatment, Goal A with a budget amount of \$30,000 for 2021. This will increase the Annual Totals and Totals Funded Through Levy on page 122 for 2021 from \$1,136,975 to \$1,166,975.

Project location can be found on the attached map.