## **ENVIRONMENTAL**

## **Project Summary**

The Missouri River Recovery Program (MRRP) Missouri River Recovery Program (SWH) Program is an Environmental Mitigation project to reverse the impacts of Bank Stabilization and Navigation Project (BSNP) from decades prior stretching between the Kansas City and Omaha Districts of the US Army Corps of Engineers.

The restoration of SWH requires 12,035 to 19,656 acres of SWH restoration must be restored through flow management, channel widening, side channel chutes, manipulation of existing aquatic habitat, manipulation of



summer flows, or combinations thereof. The bulk of the SWH restoration treatments consist of either: Chutes/Side Channels Backwaters or Channel Top-Width Widening.

## **Project Review Objectives & Findings**

The project review generated 30 recommendations to improve the SWH Restoration Program from a cost, schedule and project performance perspective. The recommendation led to the improvements in

- Cost Analysis of Clearing and Grubbing
- Cost-effective Ways to Create SWH Acreage
- o Delivery of SWH Program
- Excavation Cost of Dredging vs. Mechanical Excavation
- Excavation Rate of Bank Erosion
- o Improvement of Quality of SWH Aquatic Habitat
- Increase Available Areas for SWH Creation
- o Protecting Created SWH
- o SWH Program Maintenance

Example, see below one of the project review team's recommendations to improve SWH water quality:



To prevent eutrophication of the water column and toxicity to aquatic organisms from excess fertilizers and pesticides or urban pollutants transported by stormwater: runoff from such areas should be minimized by creating and maintaining vegetated buffer strips to filter non-point runoff and by diverting any point runoff discharges, wherever possible. These actions will minimize pollutant, nutrient, and pesticide loading that are harmful to the SWH aquatic habitat and enhance biodiversity of all levels of the Pallid Sturgeon prey base, thus increasing the likelihood that Pallid Sturgeon life stages would be supported.