Evaluating TMDL Effectiveness

Highlighting Planning and Monitoring Programs in Nebraska

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• Ambient Stream Monitoring Program
  – 101 fixed stations located on main stem and tributary streams across the state
  – Sampled monthly for traditional chemical and physical parameters

• Basin Rotation Monitoring Program
  – Six-year rotation covering the 13 major river basins in the state
  – 1-3 basins per year are sampled weekly, May-September
  – Sites selected each year using a weighted scoring system, allows us to prioritize monitoring streams in 319 project areas

• Special Studies
  – One year targeted monitoring projects, typically used to gather additional data for 319 projects
  – Helps target BMP implementation by identifying pollutant load contributions from individual watersheds within project area
Connection to TMDLs

• TMDL/5-alt development has followed 319 projects
  – Limited staff resources to dedicate to TMDL prioritization

• Example
  – 319 project with TMDL/5-alt calculations in place
  – Basin Rotation/special studies: establish baseline, return and sample after 6 years, then reassess
  – TMDL effectiveness is assessed through the lens of evaluating 319 plan progress
Success Stories

• Antelope Creek – Lincoln
  – Listed for *E. coli* in 2004, TMDL developed 2007
  – Numerous small projects, BMPs, and monitoring over ~20 years
  – Delisted in 2018 Integrated Report

• Shell Creek – Northeast Nebraska
  – Listed for atrazine in 2006, TMDL developed 2007
  – Watershed management plan (2005-present)
  – Delisted in 2018 Integrated Report
  – Student-led volunteer monitoring program established in partnership with local high schools (2002-present)
Thank you!