



Finding the Path Forward to TMDL Implementation

Or: *“The best laid plans of mice and men,
Often go awry”* – (translated Robert Burns)

ND Focus on Implementation

Action

- ✓ Get projects underway
- ✓ Start making improvements to WQ
- ✓ BMPs on the ground always better than stacks of paper in a file cabinet (or digital files filling up a hard drive)



EPA Alt Plan Considerations

Alt Plan Considerations Number	Alt Plan Considerations Summary Description	Potential Information to Include an Alternative Plan
1	Identify the specific impaired waters, causes, and sources	<ul style="list-style-type: none"> Assessment Unit (AU) numbers, descriptions and pollutants that match state's most recent 303(d) list Include a list or table of all contributing permitted point sources Identify general nonpoint source (NPS) contributors by category Include relative source contribution estimates
2	Clearly identify the target(s), consistent with water quality standards (WQS), which will be used to demonstrate restoration. Provide an analysis that shows how planned implementation actions can meet that target(s).	<ul style="list-style-type: none"> Clear target(s) consistent with WQS Load reduction estimates needed to meet the target Description of the management measures that will need to be implemented to achieve load reductions
3	Provide an implementation plan to address all sources and a schedule with milestones and target dates	<ul style="list-style-type: none"> A schedule with proposed controls and target dates A description of interim measurable milestones
4	Identify sources of available funding to implement the plan	<ul style="list-style-type: none"> A table, list, or description of the available funding sources
5	Identify all parties committed to or assisting in implementation	<ul style="list-style-type: none"> A table, list, or description of all parties that are committed to or assisting in implementation
6	Provide an estimate or projection of time when WQS will be met	<ul style="list-style-type: none"> An estimated date or number of months/years
7	Describe the plans for effectiveness monitoring to show restoration progress and identify corrective measures	<ul style="list-style-type: none"> A plan for effectiveness monitoring designed to show restoration progress and identify corrective measures
8	Describe the plans to periodically evaluate the alternative plan to determine if it's on track to more immediately meet WQS, or if adjustments need to be made, or if impaired water should be assigned a higher priority for TMDL development.	<ul style="list-style-type: none"> A plan to periodically evaluate the alternative plan to determine if it's on track to meet WQS or if adjustments need to be made

ND Crosswalk

Crosswalk for Hailstone Creek and Sims Creek Alternative Plan and EPA Region 8's Consideration Table

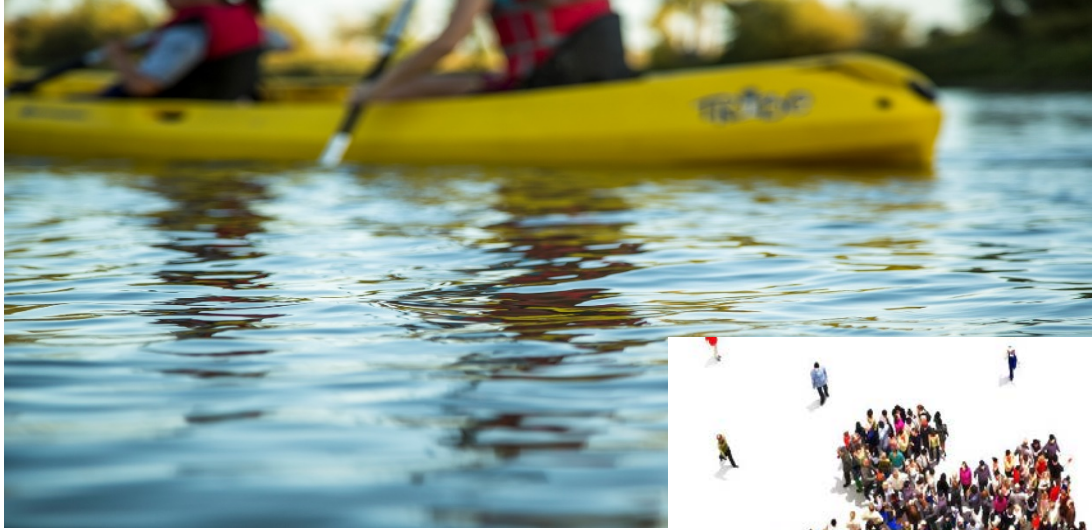
This crosswalk was developed to summarize how the Hailstone Creek and Sims Creek Alternative Plan addresses the considerations put forth in EPA Region 8's discussion of alternative plans (Table 1.) The number in the summary corresponds to the Alt Plan Considerations Number in the table that follows.

- 1) This information is provided on page 2 as well as in Sections 2.1, 2.2, 2.5, and as Figures and Tables in Appendix 1.
- 2) The WQS are identified in Section 2.5 Water Quality, and the target is identified in Section 3.2 Objectives and Tasks, Objective 1. Management measures are also identified in this Section and Objective. Specific practices are also mentioned at the end of Section 2.2.
- 3) Implementation goals are provided in Section 3.2 as well as the milestone table in Appendix 3.
- 4) Funding sources are provided in the budget table in Appendix 2.
- 5) Project Sponsors are listed in Section 3.5 and the coordination plan is discussed in Section 4.0.
- 6) The timeframe of when WQS will depend on many factors such as landowner interest, economic conditions, weather, etc. To address this, as identified in Section 3.2, Task 10, it states that water quality sampling will be conducted as BMPs are installed to monitor effectiveness. Section 5.0 discusses how monitoring and evaluation will be conducted to describe progress towards the established targets. If progress is not deemed sufficient, a TMDL will be completed. The Implementation Project will run from 2018 to 2022.
- 7) Effectiveness monitoring is described in #6 above.
- 8) This will be done as a part of the effectiveness monitoring. As stated in Section 5.0, at the end of the project a larger report summary will also be written to see if sufficient progress towards the targets has been made. If E. coli water quality standards are not met within a reasonable period of time after implementation is complete, a TMDL will be developed.



Challenges to Implementation

- *Internal – Coordination between programs*
- *External – The groups you are trying to engage*



BEST LAID PLANS.....

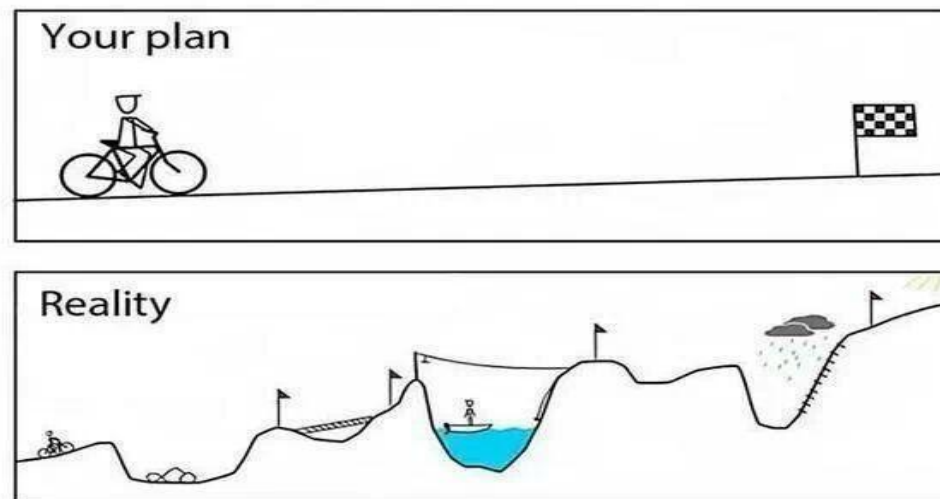
NORTH
Dakota

Be Legendary.™

RESILIENT

Being resilient, with the ability to change is key

- How often do things NOT go according to plan?
- As you are planning, identify core goals and keep them handy
- When things change, and they will, look for ways to choose a different path to the goal





CHALLENGE

Insufficient planning

Core Goal #1

INTERNAL

- Identify Data Needs
- Coordination with Permits Program
- Coordination with Monitoring and Assessment Staff
- Coordination with NPS Program

DATA

- Data Needs
 - New query that will help multiple programs

Assessment Unit ID	Assessment Unit Name	Impairment	Catchment (sq miles)	Status	Stations	# Samples/yr	Type	Comment
ND-10130203-041-S_00	Danzig Dam Watershed/Hailstone Creek	ESCHERICHIA COLI (E. COLI)	41.25	TMDL planned for FY21 or FY22	385562	20/2011, 6/2012, 23/2020	pathogen	
ND-10130202-012-S_00	Heart River	ESCHERICHIA COLI (E. COLI)	10.20	TMDL planned for FY21 or FY22	380160	2/1994, 3/1995, 2/1996, 3/1997, 1/1998, 4/1999, 3/2000, 4/2001, 4/2002, 4/2003, 4/2004, 6/2005, 6/2006, 8/2007, 5/2009, 5/2010, 5/2011, 4/2012, 5/2013, 4/2014, 4/2015, 4/2016, 4/2017, 5/2018, 5/2019, 4/2020	pathogen	Not many per year, but consistent. Will work when months combined across years
ND-09020203-001-L_00	Lake Ashtabula	NUTRIENT/EUTROPHICATION BIOLOGICAL INDICATORS	80.34	TMDL planned for FY21 or FY22	385559, 381174, 381173, 381172	*2010-2020 9/year, 4 sites	nutrient, chlorophyll	Check for US ACOE data
ND-09020205-018-S_00	Tributary Watershed To The Maple River	ESCHERICHIA COLI (E. COLI)	137.92	TMDL planned for FY21 or FY22	385008	21/2006, 22/2007, 20/2011, 15/2012, 12/2013, 16/2014	pathogen	Data 7+ years old



DATA

- Data Needs
 - Will be reviewed at least every 2 years with IR
 - Will provide info for Watershed Management Program strategic plan
 - Will make the best use of future open seasons and other grant “left overs”

COORDINATION

- Monitoring and Assessment Staff
 - Prioritize new Vision to match sampling
- NPS Program
 - Use query to find areas to promote assessments
 - Connection follows through TMDLs to Implementation
- Permits Program
 - Will be part of Vision 2.0 prioritization
 - First of fiscal year meetings





CHALLENGE

Lack of Public Engagement



Photo: Emily Guerin/Inside Energy

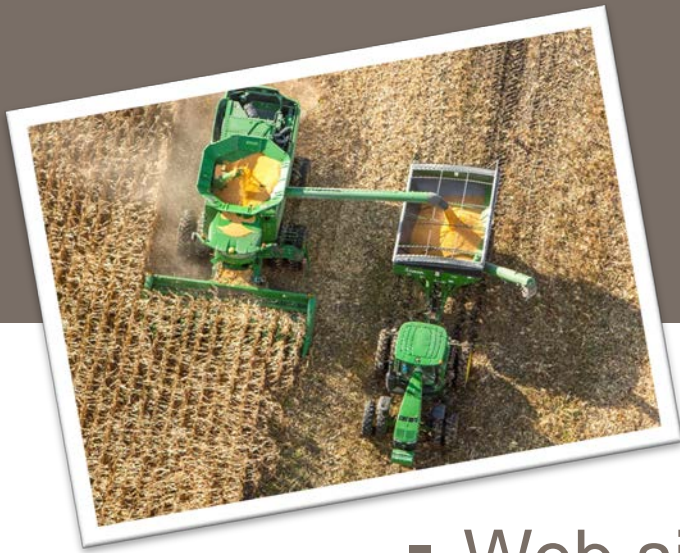


Conservation Losing Ground

Core Goal #2

EXTERNAL

- Move the tools to where the public seeks knowledge
- Consolidate meetings where possible (one stop shopping)
- Build planning capacity and knowledge base of primary partners
- Opportunities for participation = invested interest in TMDLs and Implementation



TOOLS

- Web sites to increase engagement
 - Soil health website
 - TMDL Story Maps
 - NDDEQ Facebook/Watershed Mgmt Twitter
- Soil Conservation Districts
 - Improve skills and knowledge as they are often the first stop of landowners
- Working with NDSU Extension program



BUILDING CAPACITY

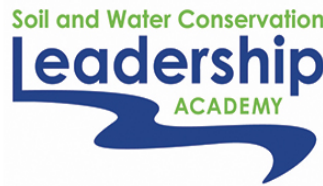
- Soil Conservation Districts
 - Leadership Academy
 - Cooperative work with Extension
 - District Planning and Watershed Planning
 - Grant continuation with “coaches”

North Dakota State Soil Conservation

- State Soil Conservation Committee
- Soil and Water Conservation Leadership Academy
 - Academy Level One Information
 - Resources
 - Academy Level Two Information

- Soil Conservation District Supervisor Yearly Training
- Soil Conservation District Supervisor Information
- District Activity Reporting Tool (DART) Supervisors Training Report (Download)
- ND Tree Handbook
- ND Tree Selector

Soil and Water Conservation Leadership Academy



This locally delivered educational program is designed to build your skills and enhance your ability to lead watershed, conservation and community-based projects that will protect water quality for future generations.



Contact Us

NDSU Extension
2718 Gateway Ave, Suite 304
Bismarck ND 58503
Phone: 701-328-9715
Fax: 701-328-9721



The purpose of this training is to help you:

- Feel better prepared to serve as an effective SCD or other watershed board member
- Enhance the ability to lead watershed, conservation and community-based projects that will protect water quality for future generations
- Define a strategic direction for the board and local watershed through effective facilitation and citizen input

Contact information

For more information about the Soil and Water Conservation Leadership Academy or other programs related to the ND State Soil Conservation Committee, please contact the NDSSCC Office at 701-328-9715.

www.ag.ndsu.edu/ndssc/leadership-academy





EASE OF ACCESS

- One Stop Shopping
 - Coordinate public meetings where possible
- Working on NDDEQ EJ Policy
 - Increasing opportunities for public engagement
- Continued online opportunities and links to recordings



Implementation
Success!



THANK YOU

- *Heather Husband | Regional Watershed Coordinator | hhusband@nd.gov*