March 8, 2021

To: Participants in the Locally Led Conservation II Training Series Session #2

From: LeAnn Buck, Executive Director, MASWCD
Keith Kloubec, Assistant State Conservationist-Programs, NRCS

Welcome to the March online training series where the spotlight is on Locally Led Conservation. Engaging speakers, important concepts, topic refreshers, and examples to apply are in this training package. Each session includes a handout packet of materials to support the key messages of the speakers.

This week’s session is Making Local Working Groups Informed as relevant information helps a team develop options and make decisions. Based on survey data from you, this session focuses on making sense at the local level of the plethora of planning processes as well as the load/overload of technical information to inform priorities. Specifically, the aim is enhancing your ability to use key points from scientific data, existing plans, and partners to inform the LWG and to create a local conservation action plan.

• Setting the Stage for Today – Keith and LeAnn
• Utilizing a Natural Resources Inventory- Ryan Galbreath, NRCS - State Resource Conservationist
• Aligning 1W1P planning, SWCD comprehensive plans, and LWGs
  o Gregory Johnson, MPCA and Darren Newville, SWCD Manager, East Otter Tail and Wadena
• Sharing Technical Findings and Reports with the Public and LWGs- Justin Hanson, Mower SWCD
• Small Group Discussion: How do I communicate scientific information as part of a planning conversation about conservation?
• Developing a Conservation Needs Assessment – Cory Walker, NRCS-District Conservationist and CST, Alexandria
• Creating a Conservation Action Plan – Keith Kloubec, NRCS

NOTES: Included in this packet is a handout with each segment of the agenda and space for your key takeaways, notes, and action ideas to jot down as you go along.

TIPS FOR SUCCESS:

1. Log onto Zoom 5-10 minutes before the session begins to be sure your connections are working well. You will be in a waiting room.
2. Preference for participation is for video camera on and muted.
3. Use the chat feature to share questions and ideas, and as time allows a response will be given or look for follow-up information after the session.
4. The session will be recorded (exception is the breakout discussions) and posted in April after the conclusion of the series. We encourage live participation as that will have the greatest benefit.

Thank you for investing in this time. We appreciate your commitment.

Questions:

Please contact Donna Rae Scheffert leadershiptools@charter.net or call 612-360-4484
Locally Led Conservation Training Series
#2 Making LWG Informed

How to use key points from scientific data, existing plans, and partners to inform the LWG and to create a local conservation action plan.

### Agenda and Presenters

**Welcome, Purpose, Goals, and Game**

LeAnn Buck, MASWCD
Keith Klobec, NRCS
Donna Rae Scheffert, LeadershipTools
Lisa Hinz, U of MN Extension

### Key Ideas and Notes

**Utilizing a Natural Resources Inventory**

Ryan Galbreath, NRCS

**Aligning 1W1P Planning, SWCD Comprehensive Plans, and LWGs**

Greg Johnson, NRCS
Darren Newville, SWCD

### Website Resources:

National Resources Inventory | NRCS Minnesota (usda.gov)
Sharing Technical Findings and Reports with the Public and LWGs

Justin Hanson, SWCD

Discussion:

How do I share scientific information as part of a planning conversation about conservation?

Developing a Conservation Needs Assessment and Action Plans

Cory Walker, NRCS
Keith Kloubec, NRCS
HOSTING EFFECTIVE LOCALLY LED CONSERVATION MEETINGS

Priority Setting with Science, Effort Analysis, and Local Input

Priority setting for your conservation work can be thought of as a 3-legged stool. First, science grounds you with information and studies that inform your potential work focus. The second leg looks at your efforts: past and present as well as what is positioned to be done next. The third leg seeks resident input to garner insights and gauge interest in various potential priorities.

These 3 legs come together to create a seat where your conservation priorities can land – AND take a place at the table.

Created by Donna Rae Scheffert, Leadership Tools, 2018
Minnesota Watershed Planning and Implementation

**Programs and strategies**
- Nutrient Reduction Strategy
- Nitrogen Mgmt. Plan

**Initial assessments, goals, priorities, & strategies**
- WRAPS
- TMDLs
- GRAPS
- Comprehensive Plans

**Identify specific sources, critical areas, practices and activities**
- NRCS Watershed Assessments – NWQI/ MRBI
- MPCA Section 319 9-Element Plans

**Landowner practice selection, pre-design and cost analysis**
- NRCS Conservation Planning Process
- WHP/ DWMSA

**Tools**
- Monitoring
- IBIs
- NBS, BEHI/BANCS
- P Index
- WHAF
- NP-BMP
- HSPF, SWAT, SPARROW
- GSSHA, P8, WinSLAMM
- HSPF-SAM, EBI, WEPP
- BATHTUB, RUSLE2
- Land survey
- Soil survey
- Vegetation survey
- Hydroconditioned LiDAR elev. data
- Terrain analysis
- PTMApp
- ACPF
- Zonation
- Landowner contacts
- BMP manual
- Cost-benefit
- NRCS GIS toolbox
- Agren design tool

**Stakeholder engagement and Partnership building**
- Assess condition
- Model impacts
- Gather landscape data

**MN Water Mgmt. Framework**
- NRCS Areawide Planning
- Small WS Planning

**Process**
- Stakeholder engagement and Partnership building
- Assess condition
- Model impacts
- Gather landscape data

**Monitoring**
- WRAPS
- TMDLs
- GRAPS
- Comprehensive Plans

**State**

**HUC-8**

**HUC-12**

**Site**
**Tier 1 Issues**

Tier 1 are the most important issues that will be the focus of implementation efforts in the 10-year plan. They had a “high” ranking in at least one planning region and lined up with NRCS Resource Concerns. Planning Region priority is noted with: 🟢 High; 🟡 Medium; 🔴 Low.

<table>
<thead>
<tr>
<th>Category</th>
<th>Resource</th>
<th>Issue Statement</th>
<th>NRCS Resource Concern</th>
<th>Planning Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking water</td>
<td>Shallow groundwater is highly vulnerable to contamination from numerous sources.</td>
<td>Water Quality Degradation – Excess nutrients in groundwater</td>
<td>🟢 High</td>
<td>🟢 High</td>
</tr>
<tr>
<td>Streams, Lakes</td>
<td>Soil erosion and runoff can cause sediment and nutrient enrichment and low dissolved oxygen in lakes and streams.</td>
<td>Soil Erosion – sheet rill; Water Quality Degradation – Excessive sediment in surface waters</td>
<td>🟢 High</td>
<td>🟢 High</td>
</tr>
<tr>
<td>Streams</td>
<td><em>E. coli</em> impairments in streams can make them unsafe for recreation.</td>
<td>Water Quality Degradation - Excess pathogens/chemicals from manure, biosolids or compost</td>
<td>🟢 High</td>
<td>🟢 High</td>
</tr>
<tr>
<td>Lakes</td>
<td>Projected development pressure and conversion of seasonal properties to fulltime homes has the potential to negatively affect lake water quality and riparian habitat.</td>
<td>Water Quality Degradation – Excess nutrients in surface water</td>
<td>🟢 High</td>
<td>🟢 High</td>
</tr>
<tr>
<td>Agricultural land</td>
<td>Soil health has the potential to impact agricultural productivity and water-holding capacity.</td>
<td>Soil Erosion – Organic matter depletion</td>
<td>🟢 High</td>
<td>🟢 High</td>
</tr>
<tr>
<td>Forests, Grasslands</td>
<td>Fragmentation and degradation of upland habitat by changes in land use can cause a loss of perennial vegetative cover and impact land resilience, habitat, surface, and ground water quality.</td>
<td>Inadequate Habitat for Fish &amp; Wildlife – Habitat Degradation &amp; Habitat Continuity</td>
<td>🟡 Medium</td>
<td>🟡 Medium</td>
</tr>
</tbody>
</table>

Source: Leaf, Wing, Redeye One Watershed One Plan at https://www.eotswcd.org/one/LWR1W1P/
Local Work Group Resources for Conservation Needs Assessments FY2021

Local Working Groups (LWG) provide recommendations on local natural resource priorities and criteria for USDA conservation activities and programs. The below references and data sources can be used to provide an inventory of local data useful in developing your Conservation Needs Assessment and Conservation Action Plan. The information presented in your Conservation Needs Assessment can be used to facilitate further LWG discussions and provide a justification for your prioritizations. Identifying other sources of data and input from Local Work Group participants is also strongly encouraged.

Information on NRCS Resource Concerns, Land Uses and Conservation Practices

NRCS Resource Concern Fact Sheets: Fact Sheets

Spreadsheet listing NRCS Resource Concerns and Categories: RC Spreadsheet

Conservation Practice Standards and Conservation Practice Overviews: FOTG Section IV

NRCS Land Use Definitions: National Planning Procedures Handbook (NPPH)

Existing Plans

SWCD Annual Reports: Located on the SWCD Websites

County Comprehensive Plans: These plans often encompass the entire county and can provide data on demographics, natural resources, and more.

SWCD Local Water Plans: County water plans are prepared by counties address water problems in the context of watershed units and groundwater systems and cover the area within a county. Located on the SWCD Websites

One Watershed, One Plan: One Watershed, One Plan (1W1P) is a program through the Board of Water and Soil Resources (BWSR) that supports partnerships of local governments in developing prioritized, targeted, and measurable implementation plans. 1W1P

Source Water Protection: The MN Department of Health has a Web Map Viewer with information available on wellhead protection areas, Drinking Water Supply Management Areas. The site also contains additional data and maps useful in identification of source water priorities in each county. MDH SWP

Minnesota Pollution Control Agency (MPCA): MPCA website has resources available on watershed descriptions, monitoring and assessment reports, restoration, and protection strategies, and more. https://www.pca.state.mn.us/water/watersheds

Additional and more detailed information on Watershed Restoration and Protection Strategies (WRAPS) can be found at MPCA WRAPS.
Local Work Group Resources for Conservation Needs Assessments FY2021

Land Use Data

The MN Natural Resources Atlas has an interactive map that provides a basic set of GIS tools for viewing, searching, and manipulating mapped data. Data includes maps of cropland, cropland productivity, feedlot locations, State Lands, precipitation, erosion risk, and much more.  
https://mnatlas.org/gis-tool/

The MN Geospatial Commons has information on Feedlots, Springs, Wildfires, Fall Nitrogen Fertilizer Application Restrictions, Oak Wilt Range, plus more.

Geospatial Data:  https://gisdata.mn.gov/group/environment

Agricultural Data

The USDA National Agricultural Statistics (NASS) site has agricultural data for each county. Data includes number of farms, type of farms, farms by size, total cropland, crops grown, livestock types, economic values of crops and more.

USDA - National Agricultural Statistics Service - Minnesota

The NASS Census of Agriculture Report has county specific reports.  2017 Census by State - Minnesota | 2017 Census of Agriculture | USDA/NASS

Other Data

Minnesota State Demographic Center: This site has county populations by age, sex, race and Hispanic Origin along with data on trends.  https://mn.gov/admin/demography/data-by-place/

MDA Emerging Farmers in Minnesota Report: 

Invasive Species:  https://www.dnr.state.mn.us/invasives/index.html


MN Scientific and Natural Areas:  https://www.dnr.state.mn.us/snas/index.html

Clean water implementation project technical assistance from regional/field staff with deep local knowledge of hydrology and stream geomorphology

Watershed analysis and modeling using the Gridded Surface Subsurface Hydrological Analysis (GSSHA) model to simulate changes in climate and land use, especially related to agricultural conservation practices

Watershed Health Assessment Framework, a web map that makes it easy to explore and analyze sub-watershed-scale (and major watershed and basin scales) information related to water quality and other aspects of watershed health, including more than 20 different watershed health index scores
Our Tips for how to share scientific information as part of a planning conversation about conservation:

- Know your audience - understand their needs and interests.
- Make it relatable, such as comparing to vehicle maintenance.
- Present how the information affects producer locally and then how it expands and try to relate it to their family members (i.e., clean water for grandchildren to play in).
- Use their perspective to relate to the resource needs you want to address.
- How will this affect their bottom line? $$$
- Keep it simple - too much info can be overwhelming.
- Use plain language. No acronyms.
- Use common and shared language - terms, concepts.
- Speak a common language.
- Use simple language and tell a story.
- Explain what is important with the data (information) - how do we use it?
- Use Graphs (Don't use pie charts, they can be hard to read and misleading. Use Bar Charts!!!)
- Always THANK your attendees.
- Always do a follow-up with attendees.
- Use maps and graphs.
- Use past aerial photos compared to present situation.
- Use Visual maps, before/after photos.
- Visuals - pictures, diagrams.
- GIS layers.
- Video.
- Use Drone flights before and after.
- MPCA reports.
- List of priorities from Water Plan.
- Present and gather information based on watershed rather than county.
- Once priority resource concerns have been developed for many years, they usually don't change much.
- Conservation practices are voluntary.
- It's hard to present scientific information and gather feedback when no one shows up.
Our Tips for how to share scientific information as part of a planning conversation about conservation

Preplan with NRCS/SWCD to narrow down the Resource Concerns so they aren't overwhelming coming into the LWC meeting.

I have sent a survey out with the invite to see what people are most interested in then we can prepare based on the survey and or have some extra info from some producers that can't not attend the meeting.

Understand what people know before sharing information.

Distinguish between collecting information on values of residents and the science of how to achieve goals.

A shared language is important. A misunderstanding of a term or action can derail a conversation.

Sometimes our partners at the table come forth of scientific data, when this happens, we do our best to break that data down into common language to better relate to the producers.

Ask people what they know.

Relate new knowledge to what people already know.

If someone brings scientific data, presenting in a visual form is nice -- like a map.

Have landowner partners do presentations.

Don't provide too many details. Provide basic information and let the group have a conversation.

Stories

Videos - great way to quickly provide a ton of information.

Maps of BMP locations

MDH Well monitoring results and locations.

Use of Rusle2 and WinPST to how conservation results.

Use WRAPS data, maps and locations