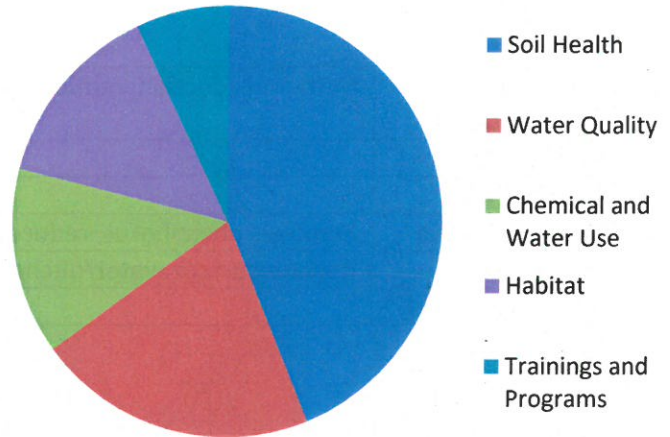


**Rural Lands Workshop Outcomes**  
**February 2, 2019**  
**Scandia, MN**

**Question 1: What's already working, and why?**  
 Producers at the workshop shared conservation strategies they were already using in their operations, including those to improve soil health, improve water quality, reduce use of chemicals and irrigation, and increase plant diversity and habitat. For some, these are new practices, while others made mention of multiple generations of conservation practice. Many also noted programs they were enrolled in or certified through. But almost more than the practices themselves, it is the reasons why producers are using these practices that can be most informative.

**Responses**



Below, the practices and why they are being used, **as described by participants** when explanations were provided, are categorized by the benefits provided. These categories aren't mutually exclusive, but should provide an overview of what is currently working for producers in the Lower St. Croix River watershed.

Soil health

Practice	Why it is working/why it is being used
Crop rotation	Promotes soil health, Better weed control, moisture retention, nutrient cycling
Mulch tillage	Better weed control, moisture retention, nutrient cycling
Rotational and prescribed grazing	Promotes soil health, save money, protect water
Cover crops	Break up hard pan, nutrient building, soil becomes softer, keep soil microbes active
Rotation of legumes (hay)	More microbes, more nutrients, buffer, water quality
Minimum/no/strip till	Less labor and equipment, improves soil structure and reduces erosion, higher residual cover, save money, enhanced weed control especially on sands, efficient way to till/plant, save time, easier and less time placing, yields are about the same, wouldn't work without pesticides

### Water quality

<b>Practice</b>	<b>Why it is working/why it is being used</b>
Grassed waterways	
Perennial crops	Improves infiltration, promote water quality
Water and sediment control basin	Prevents gully erosion
Wetland restoration	Nutrient reduction, reduced soil movement
Earthen dam	
Rain gardens	
Water filtration	Removes phosphorus, reduces nutrients reaching water body
Drain tile	Replace surface water/ditches, filter water through soil
Contour farming	

### Chemical and water use

<b>Practice</b>	<b>Why it is working/why it is being used</b>
VRT	
Precision agriculture	Applied based on soil needs/testing
Drip irrigation	
Split application	
Seed inoculation	
Nitrogen sidedress	Better N use efficiency, less leachable nitrate
Low pressure sprinklers	Less water used, save energy
Integrated Pest Management	Less chemical use/protect bees, better control, interesting, use softer products

### Plant diversity and habitat

<b>Practice</b>	<b>Why it is working/why it is being used</b>
Trees	Provides habitat
Buffers	Clean water, not being bothered by neighbors on manure spreading
Native prairie	Deep rooted perennials, improve soil health, drought resistant plants
Wildlife plantings and diversity of plants	Support wildlife, protect and improve water quality

## Training and certification programs

Practice	Why it is working/why it is being used
Minnesota Agriculture Water Quality Certification Program	
Land Stewardship Project's Conservation Stewardship Program	
Nitrogen Smart	Online training, understand BMP, 4 R's, raise corn profitably
EQIP	Improved quality of forage, improved quantity

### **Question 2: What conservation practices would you like to be using in five years? What are the barriers you anticipate encountering?**

By and large, the practices referenced above reflect those included in participant responses to this second question set, with a sharpened focus on increasing efficiency, ensuring profitability, innovation, and building knowledge and expertise. Participants were asked to consider what they would like their fields and practices to look like in five years should time and money NOT be an issue. However, when asked what the barriers would be to implementing these practices, the list is wide and varied.

The summary below attempts to categorize the comments by the type of barrier that makes further changes difficult.

#### Profitability

- Market access
- Farm size and competition
- Loss of cropland for some practices
- Technology makes farming more efficient but it makes it hard to make a living as a farmer

#### Costs

- Upfront costs with long-term ROI
- New fencing
- New equipment
- Long-growing crops
- Size of fields—economies of scale

#### Support resources

- Educational resources
- Less limited ag retailers
- Planning and design
- The area lacks knowledgeable professionals to work with—soil health specialists, agronomists

#### Terrain

- Local terrain won't work with precision ag—field sizes too small, consultants not as interested
- Location/situation differences

#### Regulations

- Difficult to diversify crop when programs (ie FSA) are not operationalized to work with other crops (ie, not corn or soy)
- Too many hoops with ditch maintenance
- Land access and private property rights

#### Perceptions

- Public perception of ag not good
- Misinformation about health and nutrition of livestock products, echo chambers
- How can we improve on something when we think we're doing a good job?
- Businesses not aware of the role they can play to help farmers protect forests and crops

Many of these barriers have to do with time and money, as expected, but the nuance of risk is an important one. In looking again at the summary through the lens of risk management, it is clear that risk weighs heavily in decisions in the short term, despite desires for long term increases in conservation practices.

#### Next steps

While the two questions asked in the workshop did not include a request for strategies to address the barriers, a number of participants offered a few that would effectively manage some of the risk, including edge of field nutrient monitoring, conservation practices trials of different tillage methods to compare side by side, and increasing local agronomists and resource staff. Now that participants have named their goals and the challenges they encounter, a follow up conversation asking for those strategies more directly may be warranted. Until then, this report can still be used to inform the development of the Lower St. Croix One Watershed, One Plan.