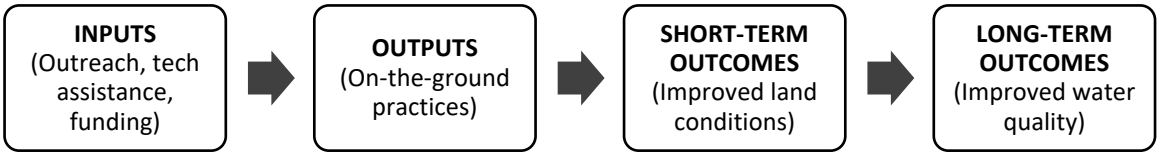
ODA's AgWQ Monitoring Strategy: Overview
December 4, 2017

ODA has a robust AgWQ Program that has evolved over the last 20 years. The core process for meeting our program goal is illustrated below.

Figure 1. Process for meeting Oregon's Goal



ODA needs monitoring to document agricultural land and water quality conditions, evaluate how those conditions change over time, and determine whether conditions and implementation strategies will achieve Oregon's water quality goals. ODA uses monitoring data as part of a broad effort to continually review and determine the effectiveness of Area Plans and proposed measures. ODA also needs monitoring data to help tell the story of agriculture's efforts to improve water quality to a broad audience.

The State of Oregon, working with federal and local partners, is implementing a coordinated approach to streamside management. The State believes this coordinated approach will improve water quality and make more habitat available for fish and stream-side dependent plants and animals. The State, with partners, will select areas in different geographic areas to maximize the potential for implementing on-the-ground work for conservation and monitoring activities.

Why a Monitoring Strategy?

A monitoring strategy:

1. Provides ODA's AgWQ Program with a carefully considered road map for monitoring.
2. Informs conservation partners that the AgWQ Program has such a road map and what it is.
3. Provides opportunities for conservation partners to help ODA answer its monitoring questions.
4. Provides sufficient information to conservation partners for them to identify opportunities for ODA's monitoring program to help them with their monitoring needs.

How develop it?

ODA's AgWQ Program developed its first monitoring strategy in 2006. It has been updated every 2-4 years since. The last update was 2012. The Monitoring Strategy needed to be updated once again because the AgWQ Program has matured and is putting more resources into monitoring progress towards meeting Area Plan goals.

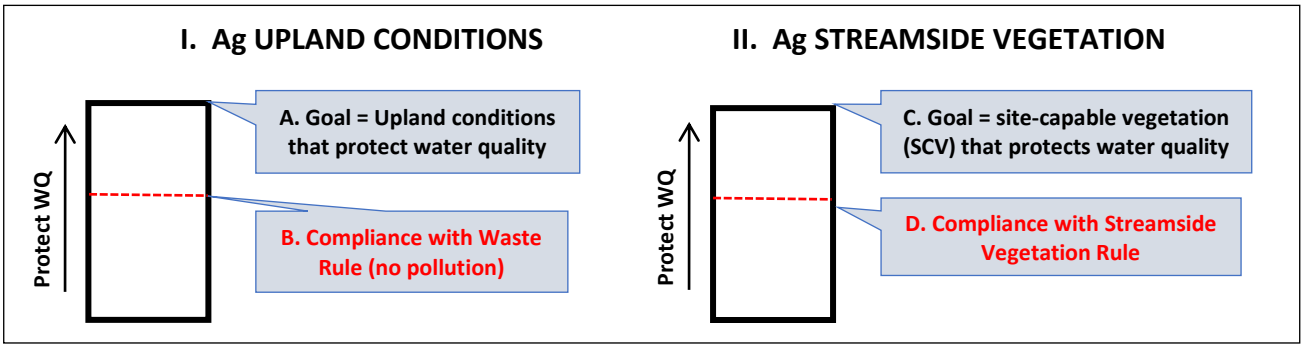
An internal work group started working on updating the strategy in July 2016 and finished in September 2017. It has been reviewed by John Byers and Ray Jaindl and is almost ready for external distribution.

The 29-page Monitoring Strategy identifies our monitoring principles, key monitoring questions, and the metrics and methods for answering those questions. ODA then provides this information to funders, policy makers, and policy influencers. Limited resources prevent ODA from developing monitoring activities to answer all the questions, so questions have been prioritized.

What's in it?

The strategy relies on a key concept regarding the relationship between the Area Rules and Area Plans, because compliance with Area Rules may or may not be sufficient to fully protect water quality. The Program's key monitoring questions relate to the different levels of protection (Figure 2: A-D).

Figure 2. Relationship between Area Plan Goals, Area Rule Requirements, and water quality protection.



Monitoring Principles (examples)

- Recognize that agricultural and other nonpoint impacts to water quality are cumulative.
- Monitor multiple measures of progress on the landscape and in the water column.
- Focus on streamside vegetation.
- Complement other agencies' roles and data collection.
- Use monitoring data for adaptive management.
- Communicate early and often.

Key Monitoring Questions

There are an endless number of questions that the AgWQ program could answer or that others want us to answer. The internal workgroup identified key questions tied to the steps in Figure 1 that were most important for us to track program effectiveness. Some questions also tie to A-D in Figure 2.

Table 1. Key Monitoring Questions for the AgWQ Program

I. Inputs and Outputs

Q1. What activities are being done to help achieve desired land conditions and water quality?

II. Short-term Outcomes: Land Conditions

Q2. What percent of agricultural uplands are in compliance with the Waste Rule? (Figure 2: Level 'B')

Q3. What percent of stream miles on agricultural lands are in compliance with the Streamside Vegetation Rule? ('D')

Q4. What percent of agricultural uplands have land conditions that protect water quality? ('A')

Q5. What percent of stream miles on agricultural lands have vegetation that provides water quality functions equivalent to site-capable vegetation? ('C')

Q6. What percent of stream miles on agricultural lands have conditions that will likely prevent site-capable vegetation from providing desirable water quality functions?

III. Long-term Outcomes: Water Quality

Q7. What are water quality status and trends in agricultural areas?

Q8. How are water quality status and trends related to changes in agricultural upland and streamside vegetation conditions?

For each key monitoring question, we have identified a Program Target, Measurable Target, the metric(s), and the current methodology for answering the question. Some of these questions are not answerable with current resources. For others, we have developed metrics and methods to start to get answers.