Strategic Implementation Areas 2014 to 2019

Progress Report

Prepared by:
The Oregon Department of Agriculture
Natural Resources Program Area
Water Quality Program
June 2020

Oregon
Department
of Agriculture

A special appreciation to Oregon's agricultural communities for their ongoing commitment to water quality stewardship.

The Strategic Implementation Areas initiative is conducted by Oregon Department of Agriculture.

In Coordination with
Oregon Department of Environmental Quality
Oregon Department of Fish and Wildlife
Oregon Watershed Enhancement Board
Oregon's Soil and Water Conservation Districts
And Watershed Councils
And
All the many local partners and stakeholders around the state that have engaged in the SIA initiative.

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Strategic Implementation Areas 2014 to 2019 Progress Report

Executive Summary

The Strategic Implementation Areas (SIA) initiative concentrates technical and financial resources to agricultural areas to address water quality concerns and includes four key components:

1. Documenting compliance with Oregon's agricultural water quality regulations.
2. Voluntary, incentive-based conservation.
3. Monitoring to track water quality and landscape conditions.
4. Collaborative partnerships.

The following report provides an overview of the Oregon Department of Agriculture's (ODA) water quality program, the SIA initiative, and the 2014 to 2019 SIA progress report.

In 2015, ODA's SIA initiative was selected to pilot the state's coordinated streamside management approach. This method brings together local government, state agencies, and federal partners with similar water quality objectives. Altogether to solve local water quality concerns and improve native fish habitat in a coordinated and partnered approach.

The SIA process uses both voluntary and regulatory measures to provide the greatest benefit to water quality. It supports and encourages innovation and local solutions while ensuring landowners comply with Area Rules. The process includes an ODA compliance evaluation of agricultural lands, landowner engagement, technical assistance, monitoring, and ODA follow up with landowners until water quality concerns are resolved.

Progress described in this report is from both open and closed SIAs representing the first six years of SIA implementation; work is ongoing in many SIAs and the data presented in this report is a running total of what has been accomplished through December 2019.

Between January 2014 and December 2019 ODA initiated a total of 34 SIAs consisting of 11,897 agricultural tax lots in 82 sub-watersheds. A high percentage (96%) of tax lots were evaluated at the lowest concern levels (Table 1); indicating that these lands are in compliance with agricultural water quality regulations and landowners most often are putting into practice voluntary conservation measures.

However, almost four percent of agricultural tax lots were evaluated at the highest concern levels. Of those tax lots that resulted in an ODA site inspection, 45% of the documented concerns were related to streamside vegetation condition; soil erosion 31% and manure management at 24%. ODA continues to follow up with these landowners using a progressive approach to ensure 100% compliance in SIAs (Table 3 and Appendix B).

ODA Accomplishments January 2014 through December 2019

- Initiated 34 SIAs; 15 closed; 19 open
- Evaluated 717,417 agricultural acres
- Evaluated 2,729 agricultural stream miles
- Engaged approximately 679 landowners
- Distributed 4,330 summaries of the Area Plan and Area Rules
- Conducted 27 Open Houses
- Partnered with 28 SWCDs
- Conducted 33 Partner Meetings

Table 2A: ODA Preliminary SIA Compliance Results

Table 2A: Compliance Results (Preliminary Data) 11,897 Agricultural Tax Lots Evaluated (2014 to 2019). See Appendix C for details by SIA. Highest Concern Levels ⟷ Lowest Concern Levels			
*** Potential Violations**	**Opportunity for Improvement**	**Low Opportunity for Improvement**	**Limited Opportunity for Improvement**
64 (0.6%)	345 (3%)	752 (6.3%)	10,721 (90.1%)
* ODA works with all potential violations until water quality concerns are resolved (Table 3).			

Partner Accomplishments January 2014 through December 2019

- SWCDs were awarded $2,968,625 in OWEB SIA grants
- SWCDs contacted 351 landowners
- Attended 33 partner meetings and 27 open houses
- Submitted 13 project applications
- 1-public farm tour of project sites
- 1-soil health workshop conducted
- SWCDs/partners distributed 289 informational flyers
- 9 monitoring teams convened; 3 monitoring proposals submitted for approval

Table 4: Agricultural Landowner and Operator Accomplishments 2014 to 2019

Streamside Areas		
Streamside Plantings (Acres)	**Streamside Plantings (Linear Stream Miles)**	**Approximate Number of Native Trees and Shrubs Planted**
69 (33 CREP*)	5.8	88,100
• 9 landowners removed ag activities from streamside areas • 5 landowners installed streamside fencing to exclude grazing • 32 pieces of large woody debris installed into streams • 36 acres of restored riparian meadow • 1 removal of fish passage barrier (culvert) • 2 off-stream watering troughs installed • 5 hardened stream crossings constructed • 1 prescribed grazing management plan		
Livestock Manure Management		
• 1 heavy use area constructed • 1 three-bay composting system constructed • 9 properties with improved manure management – disposal and cover		
Soil Erosion		
• 3 operations adopted soil health practices: cover crops, mulching, conservation tillage • 1 conversion to gated pipe irrigation system • 1 conversion to drip irrigation • 1 irrigation water management plan developed • 1 soil erosion plan developed • 6 farm conservation plans developed • 20 acres of invasive plants treated		

* Conservation Reserve Enhancement Program

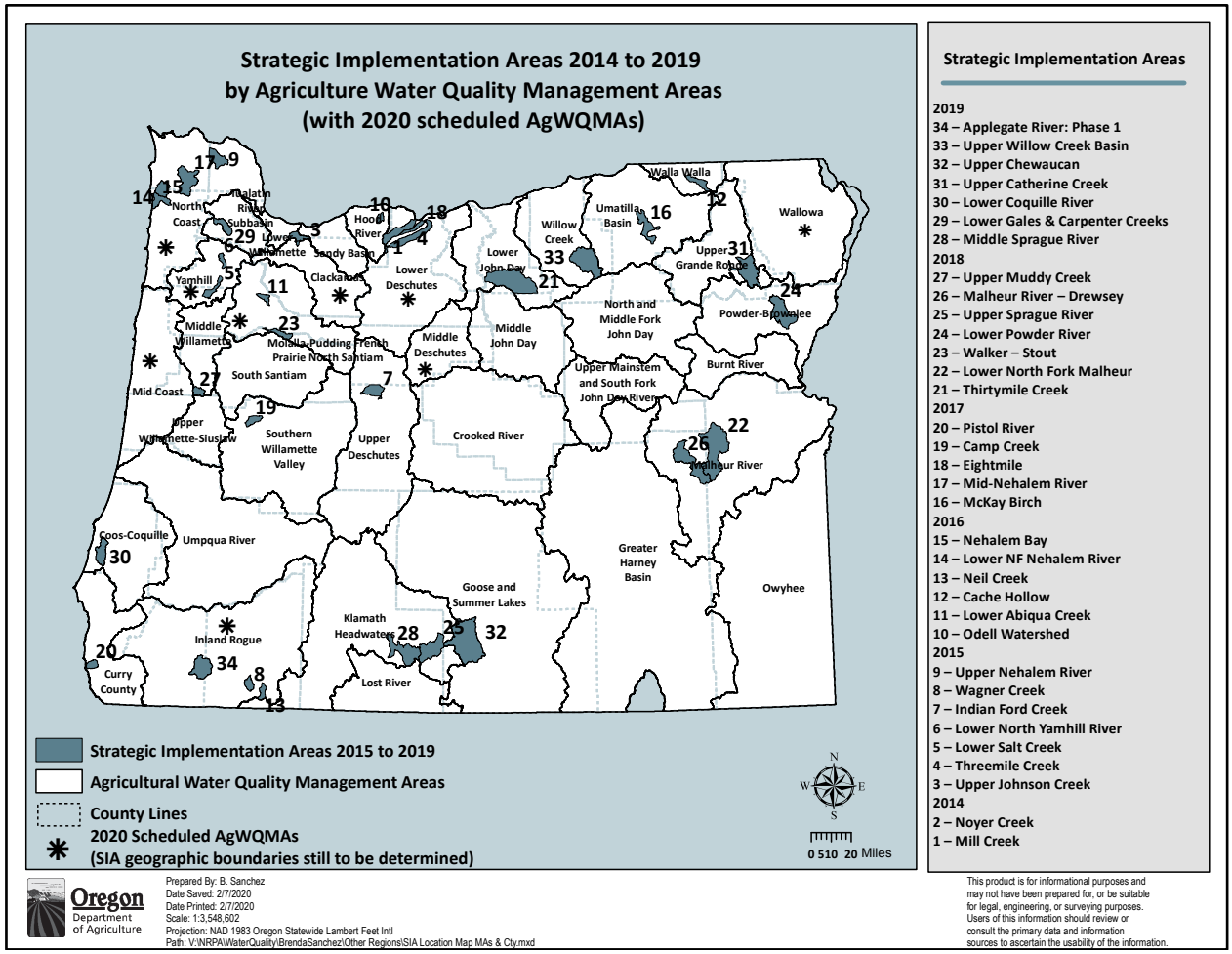
1. Introduction

The Strategic Implementation Areas (SIA) initiative concentrates technical and financial resources to agricultural areas to address water quality concerns and includes four key components:

1. Documenting compliance with Oregon's agricultural water quality regulations;
2. Voluntary, incentive-based conservation;
3. Monitoring to track water quality and landscape conditions;
4. Collaborative partnerships.

The following report provides an overview of the Oregon Department of Agriculture's (ODA) water quality program, the SIA initiative, and the 2014 to 2019 SIA progress report.

Map 1: Strategic Implementation Areas 2014 to 2019



2. Oregon's Agricultural Water Quality Management Program

In 1993, the Oregon Legislature passed the Agricultural Water Quality (AgWQ) Management Act directing ODA to develop plans to prevent and control water pollution from agricultural activities and soil erosion, to achieve water quality standards, and to adopt rules as necessary to implement the AgWQ Management Program (Program) (Oregon Revised Statute (ORS) 568.900 through 568.933). In 1995, the Oregon Legislature further clarified that ODA is the lead agency for regulating agriculture with respect to water quality (ORS 561.191).

The Program applies to all agricultural activities on non-federal and non-Tribal Trust land within the state including:

- Farms and ranches
- Rural residential properties grazing a few animals or raising crops
- Agricultural lands that lay idle or on which management has been deferred
- Agricultural activities in urban areas
- Agricultural activities on land subject to the Forest Practices Act (ORS 527.610)

Between 1997 and 2004, ODA worked with Local Advisory Committees (LACs) and other local partners to develop AgWQ Management Area Plans (Area Plans) and Area Rules for 38 watershed-based AgWQ Management Areas (Management Areas) across Oregon. See Map 1 for Management Areas.
State and federal programs that drive the establishment of Area Plans and Area Rules include:

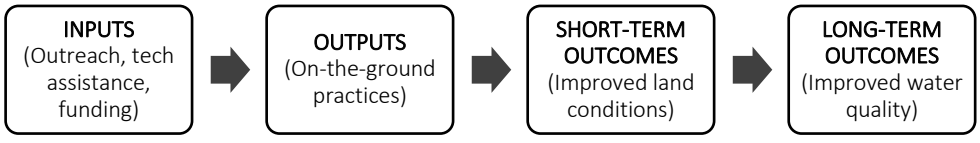
- State water quality standards;
- Load allocations for agricultural nonpoint source pollution assigned under Total Maximum Daily Loads issued pursuant to Section 303(d) of the federal Clean Water Act;
- Approved management measures for Coastal Zone Act Reauthorization Amendments;
- Agricultural activities detailed in a Groundwater Management Area Action Plan (if the Oregon Department of Environmental Quality (ODEQ) has established a Groundwater Management Area and an action plan has been developed).

The Program emphasizes protection and enhancement of vegetation along streams to prevent and control water pollution from agriculture activities and to prevent and control soil erosion. Streamside vegetation can provide three primary water quality functions: shade for reducing solar heating of streams, streambank stability, and filtration of pollutants. The goal for Oregon's agricultural landowners is to provide the water quality functions (shade, streambank stability, and filtration of pollutants) produced by vegetation along streams flowing through agricultural lands.

2.1 Area Plans

The goal of each Area Plan, like the AgWQ Program, is to prevent and control water pollution from agricultural activities and soil erosion to achieve applicable water quality standards. This goal is accomplished through helping landowners make on-the-ground changes, resulting in improved upland and streamside conditions that will protect water quality (Figure 1).

Figure 1. Process for Meeting the Area Plan/ AgWQ Program Goal



Area Plans provide guidance for addressing water quality related to agricultural activities in each Management Area. Area Plans are unenforceable. Each Area Plan identifies strategies to prevent and control water pollution from agricultural lands through a combination of outreach programs, suggested land treatments, voluntary management activities, funding, compliance with Area Rules, and monitoring.

2.2 Area Rules

Area Rules (Oregon Administrative Rules 603-095-0000 through 3900) require that landowners perform actions as necessary to prevent and control pollution from agricultural activities and soil erosion. Area Rules are enforceable. All Management Areas have at least two rules: a waste rule and a streamside vegetation rule. Some Area Rules have additional rules that are specific to that Management Area.

Waste Rule

All agricultural landowners must comply with a Waste Rule by not polluting ground or surface water, discharging wastes into waters of the state, or placing any wastes in a location where they are likely to enter waters of the state (ORS 468B.025). Wastes include excess soil, manure, fertilizer, or other substances that can pollute water. Waters of the state can include ponds, groundwater, canals, ditches, and rivers.

Streamside Vegetation Rule

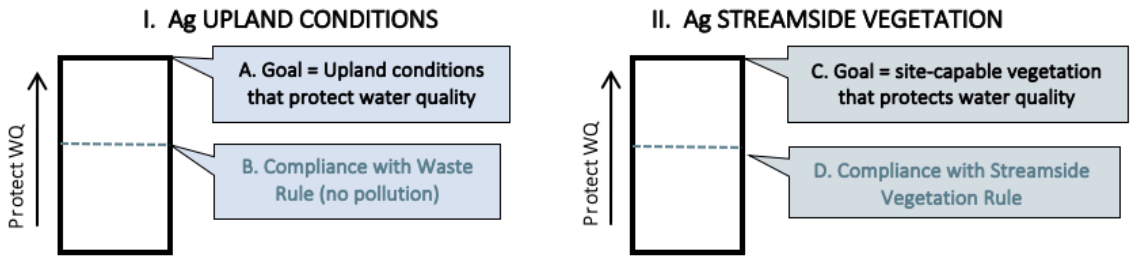
At a minimum, all agricultural landowners must comply with a streamside vegetation rule by allowing vegetation to establish and grow along:

- Streams that flow all year (perennial streams), to provide shade, stabilize banks, and filter out pollutants from overland flows.
- Streams that flow part of the year (intermittent streams), to stabilize banks and filter out pollutants from overland flows.

2.3 Relationship between Area Plan Goals and Area Rule Requirements

Two types of agricultural landscapes can affect agricultural water quality: uplands and streamside areas. Both must be managed appropriately to prevent and control water pollution from agricultural activities and to protect water quality (WQ). Figure 2 illustrates that when there is a gap between 'A' and 'B', voluntary measures may be needed (in addition to compliance) to sufficiently improve upland conditions to improve water quality.

Figure 2. Relationship between Area Plan Goals, Area Rule Requirements, and WQ Protection.



3. Strategic Implementation Areas

For many years, the Program relied on the combination of a complaint-based regulatory compliance system and a voluntary approach that tracked accomplishments such as miles of fencing installed and number of trees planted. The Program recognized in the early 2010s that it needed more than tracked outputs (fences and trees) to demonstrate the outcomes of agriculture's efforts to improve water quality. This led to ODA developing Strategic Implementation Areas to document compliance with Area Rules in small geographic areas (watersheds).

In 2014 ODA implemented two SIA pilot projects; the Noyer Creek (Clackamas County) and the Mill Creek (Wasco County). Results of the SIA pilot projects led to ODA implementing SIAs as a statewide initiative.

4. Coordinated Streamside Management

In 2015, ODA's SIA initiative was selected to pilot the state's coordinated streamside management approach. This method brings together local government, state agencies, and federal partners to solve local water quality concerns and improve native fish habitat in a coordinated and partnered approach.

The coordinated streamside approach allows for local partners to engage in a variety of efforts to help landowners improve water quality, enhance fish and wildlife habitat, and monitor the effectiveness of completed work. As partners begin SIA work, they are encouraged to leverage efforts to fill priority gaps and foster strong partnerships.

ODA's partners are many, but most important are agricultural landowners and operators. They are essential to the success of SIAs. Agricultural landowners are encouraged to participate in the SIA process through community outreach efforts, which facilitate contact with technical assistance from ODA, Soil and Water Conservation Districts (SWCD) and partners.

5. SIA Process

The SIA process uses both voluntary and regulatory measures to provide the greatest benefit (uplift) to water quality. It supports and encourages innovation and local solutions while ensuring landowners comply with Area Rules. Below is a summary of the SIA process.

5.1 2019 to 2023 Implementation Schedule

In 2019, ODA drafted a 2019 to 2023 SIA implementation schedule by Management Area. The schedule was completed after gathering agency, stakeholder, and local partner input. The schedule ensures that SIA work is carried out more frequently in Management Areas where there are high priority water quality concerns, high density agriculture, and high priorities for improved native fish habitat. The schedule allows for partners to better plan for and align programs and priorities to SIA work. See Appendix A for the schedule. The 2024 to 2028 schedule will be completed in 2023.

5.2 Watershed Prioritization

To help select SIA geographic boundaries, ODA prioritized watersheds at the 6th field hydrologic unit code (HUC; aka watershed) statewide. This prioritization process allowed ODA to identify high, medium, and low priorities for all applicable HUCs for future SIA implementation. The prioritization process uses a

geographic information system to calculate scores for each HUC. Data used in the prioritization process includes: percent of agricultural lands (ODA); 303d listed streams and total maximum daily load for stream temperature, bacteria, nutrients, and sediment (Oregon Department of Environmental Quality (ODEQ) 2012 303d list); and native fish priorities (Oregon Department of Fish and Wildlife (ODFW 2019)). Of the approximately 1,979 applicable HUCs there are: 376 high, 434 medium, 698 low priority, and 471 without water quality data. Scores are recalculated to update prioritization of HUCs about every four years or sooner as new data are made available.

5.3 Local SIA Planning Meeting and Selection of SIAs

ODA will conduct a local SIA Planning Meeting in each of the annually scheduled Management Areas to discuss agricultural water quality concerns, partner priorities, and to identify available programs and incentive-based funding in the area. ODA will consider information from the planning meeting, as well as ODA's watershed prioritization, when making SIA selections. In addition, ODA will consider opportunities to align SIAs with other existing initiatives, including, but not limited to:

- Drinking Water Source Protection Areas
- Groundwater Management Areas
- Pesticide Stewardship Partnerships

5.4 Remote and Field Evaluation

ODA first identifies agricultural tax lots greater than one acre in a SIA to evaluate. The Remote Evaluation is completed first. The evaluation uses publicly available remote imagery such as Google Earth to identify manure piles, bare ground, or potential impacts to streamside vegetation from agricultural activities. ODA considers the presence of an agricultural activity (such as livestock or cropping) and its proximity to waterbodies. Topography, stream type (intermittent or year-round), and other factors are considered when identifying potential water quality concerns. ODA then classifies each tax lot into one of four concern levels (Table1).

A Field Evaluation verifies the accuracy of the Remote Evaluation by examining properties from public view points. ODA staff does not enter private property without permission and does not determine compliance without a site inspection.

Table 1: SIA Evaluation Concern Levels

Limited Opportunity for Improvement (L): ODA identified that there are likely no agricultural water quality regulatory concerns.
Low Opportunity for Improvement (LO): ODA identified that there are likely no agricultural water quality regulatory concerns, but there may be an opportunity for improvement through voluntary measures to reach the goals of the Area Plan.
Opportunity for Improvement (OPP): Agricultural activities may impair water quality or field evaluations were inconclusive.
Potential Violation (PV): The field evaluation from publicly accessible locations indicates a potential violation of the Agricultural Water Quality Management Area Rules.

5.5 Partner Meeting

Once the Remote and Field Evaluations are completed, ODA meets with the Project Lead (SWCD), Watershed Councils (WC), and other key partners to engage in the SIA process. The Partner Meeting provides an excellent opportunity to communicate water quality concerns, discuss potential solutions, share current information about conservation activities, establish mutual objectives, and discuss next steps.

5.6 Open House

Typically, after the Partner Meeting, ODA hosts an Open House in the SIA. The Open House creates an opportunity to engage landowners in an informative event that describes the SIA process, answers landowner questions, and shares the compliance evaluation results with landowners whose property has been evaluated. The Open House provides an opportunity for ODA to communicate the goals of the Area Plan and connect landowners to local partners for technical assistance related to water quality management.

5.7 Compliance with Area Rules

ODA works with landowners and partners to achieve 100 percent compliance in a SIA. Described below is the process for working with the highest concern levels to ensure compliance with Area Rules.

Potential Violations: ODA contacts the landowner and or operator of tax lot identified as Potential Violations (PV) to identify the extent of the potential problem. If a potential violation exist, ODA works with the landowner or operator to achieve compliance with Area Rules through ODA's compliance process (Appendix B). Partners may work with the landowner to provide technical and financial assistance (where available).

Opportunities for Improvement: After the Open House, the Project Lead (SWCD) will work to engage with those landowners whose tax lots were evaluated as Opportunities for Improvement (OPP). Project Leads are encouraged to provide one-on-one technical assistance and consultation to OPP landowners to prevent and control water pollution. Approximately one year after the Open House, ODA contacts any remaining landowners identified as OPPs who have not been in contact with the Project Lead. ODA works with the landowner to identify any potential water quality concerns and solutions.

6. Voluntary Actions for Watershed Health and Ecological Uplift

A focus of the SIA initiative is on voluntary and cooperative efforts by landowners, SWCDs, ODA, and others to protect water quality. The Oregon Watershed Enhancement Board (OWEB) awards SIA stakeholder engagement and technical assistance funding to project leads to engage landowners in voluntary incentive-based conservation actions, which work to improve water quality, enhance aquatic habitat, and achieve watershed health and ecological "uplift" above conditions required for compliance. Figure 2 (section 2) describes why voluntary measures are needed to protect water quality. Table 4 (section 9.3) illustrates voluntary actions taken by landowners.

The SIA initiative also provides a compliance process to ensure prevention and control of water pollution from agricultural sources in cases where landowners or operators refuse to correct problem conditions. Area Rules describe regulatory expectations for water quality outcomes while allowing landowners flexibility in how they protect water quality.

7. Monitoring

The purpose of SIA monitoring is to measure change in landscape and water quality resulting from the implementation of projects that improve agricultural management practices (outcomes Figure 1).

Watershed-scale monitoring is a key component to understanding how changes in agricultural practices can protect and improve water quality. Depending on the stream, monitoring parameters could include stream temperature, sediment, nutrients, and bacteria. In addition to watershed scale monitoring, evaluation of specific implementation strategies helps local groups learn and share information about effective approaches. Implementation of this partnership and incentive-based approach is expected to improve water quality over time and provide information to support adaptive management.

A statewide level Monitoring and Assessment Group (MAG) comprised of ODA, ODEQ, ODFW, and OWEB has developed guidelines for local SIA monitoring efforts. Group members have worked with local SIA partners to develop long-term monitoring plans beginning with the 2017 SIAs. OWEB awards up to $25,000 in monitoring funding to the SWCD to develop and begin implementing monitoring plans.

8. Available Funding

Since 2015, OWEB has been providing funding opportunities for SIAs. For the 2019 to 2021 biennium, the OWEB Board approved $1.6 million (up to $100,000 for each SIA) in grant funds. These funds can be used for landowner engagement and technical assistance activities such as workshops, developing informational material, conducting on-site assessments, conservation and project planning and design, and assistance within the boundaries of the SIA. The OWEB Board also authorized an additional $400,000 to support monitoring activities. Project partners can apply for project funding through federal, state, and local programs, including OWEB's Open Solicitation and Small Grant programs.

9. 2014 to 2019 SIA Progress Report

This is the first progress report to aggregate tracked data for the SIA initiative. Progress described in this report is from both open and closed SIAs representing the first six years of SIA implementation; work is ongoing in many SIAs and the data presented in this report is a running total of what has been accomplished through December 2019. Between January 2014 and December 2019, ODA initiated a total of 34 SIAs consisting of 11,897 tax lots in 82 watersheds. A high percentage (96%) agricultural of tax lots were evaluated at the lowest concern levels (Ls and LOs, Table 1); indicating that these lands are in compliance with agricultural water quality regulations and landowners most often are putting into practice voluntary conservation measures (Table 2A).

However, almost four percent of agricultural tax lots were evaluated at the highest concern levels (PVs and OPPs). Of those tax lots that resulted in an ODA site inspection, 45% of the documented concerns were related to streamside vegetation condition; soil erosion 31% and manure management at 24%. (Figure 3). ODA continues to follow up with all tax lots evaluated at the highest concern levels (PVs and OPPs), using a progressive approach to ensure 100% compliance in SIAs (Appendix B). SWCDs and partners are successfully working to not only address water quality concerns but also engage landowners in voluntary conservation. See Table 4 for progress.

When a SIA is closed, a post analysis is completed to track concern levels depending on investigation outcomes and information from the project lead. Post analysis of closed SIAs through December 2019

demonstrate that 2%, out of the 3.6% of tax lots evaluated in the highest concern levels, have been downgraded to the lowest concern levels after working with ODA and partners (Table 2B).

ODA closes a SIA when 100% compliance is achieved; all cases closed and all PVs and OPPs have been addressed and downgraded to the lowest concern levels. As a standard procedure ODA will close a SIA at four years. Any remaining inspections will be continued through ODA's compliance process. ODA will continue to work with SWCDs and partners regarding any remaining OPPs as needed beyond closing an SIA. As of December 2019, 15 out of 34 SIAs are closed (Appendix C), with nine more opening in 2020.

9.1 Compliance Progress

This section displays progress toward the compliance component of SIAs from January 2014 to December 2019. Compliance work is on-going in many SIAs and may not be reported in this report. Data is from ODA's SIA programmatic tracking and compliance database. Landowner projects (outputs Figure 1) reported through ODA's compliance process are included in Table 4.

ODA Accomplishments January 2014 through December 2019

- Initiated 34 SIAs; 15 closed; 19 open
- Evaluated 717,417 agricultural acres
- Evaluated 2,729 agricultural stream miles
- Partnered with 28 SWCDs
- Conducted 33 Partner Meetings
- Conducted 27 Open Houses
- Distributed 4,330 summaries of the Area Plan and Area Rules
- Engaged approximately 679 landowners

Table 2A and 2B: ODA Preliminary and Post-SIA Compliance Results

Table 2A: Compliance Results (Preliminary Data) 11,897 Agricultural Tax Lots Evaluated (2014 to 2019). See Appendix C for details by SIA. Highest Concern Levels ← → Lowest Concern Levels			
*** Potential Violations**	**Opportunity for Improvement**	**Low Opportunity for Improvement**	**Limited Opportunity for Improvement**
64 (0.6%)	345 (3%)	752 (6.3%)	10,721 (90.1%)
Table 2B: Post Analysis of Closed SIAs			
*** Potential Violations**	**Opportunity for Improvement**	**Low Opportunity for Improvement**	**Limited Opportunity for Improvement**
36 (0.3%)	223 (1.9%)	903 (7.7%)	10,721 (90.1%)
* ODA works with all potential violations until water quality concerns are resolved (Table 3).			

Figure 3: ODA Inspection Categories

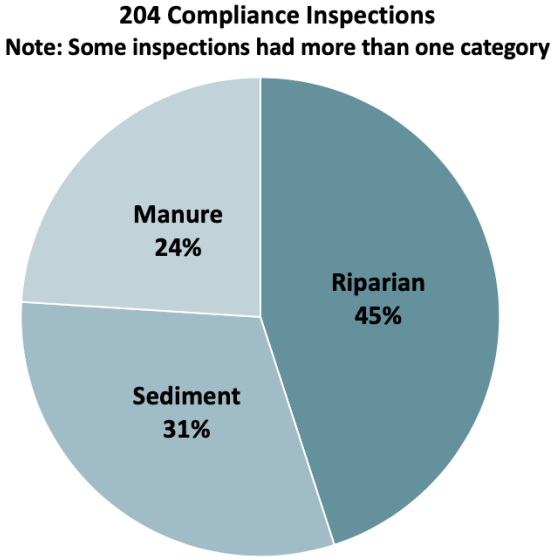


Table 3: ODA Agency Actions Resulting from SIA Inspections

From 2014 through December 204 Inspections were initiated. As of December 2019, 194 closed; 10 open. Note: Some inspections resulted in more than one Agency Action.				
No Concern After Inspection	**Pre-Enforcement Notification**	**Letter of Compliance**	**Notice of Noncompliance**	**Civil Penalty**
124	72	61	2	0

Pre-Enforcement Notification: A pre-enforcement notification (notification) means that either the inspector documented a violation at the site visit or conditions on the property are likely to violate the Area Rules. The notification is an unofficial compliance action (not defined in Administrative Rule) that gives the landowner or operator at least one opportunity to correct the problem before receiving an Order. The notification can be issued via an In-field Pre-Enforcement Notification Form or by ODA sending a Water Quality Advisory letter through the mail.

Letter of Compliance: A Letter of Compliance tells the owner/operator that at the time of the inspector's site visit, the property was in compliance with Area Rules and there were no conditions observed during the inspection, such as manure piles near drainages or heavily grazed areas, that are likely to cause a water quality problem.

Notice of Noncompliance: A Notice of Noncompliance means the inspector found a violation of Area Rules during the inspection, and the violation was (1) egregious or done to intentionally cause water pollution; (2) a second violation after being issued a Pre-Enforcement Action; or (3) we have a compliance history with the landowner, indicating that they are familiar with the water quality regulations.

Civil Penalty: A Civil Penalty is an Order, a formal legal document, that assesses a fee to a landowner whose agricultural activities caused either a willful and intentional violation of Area Rules, or who repeatedly failed to take steps to correct a violation.

9.2 Voluntary Progress

This section depicts partner and landowner accomplishments (outputs Figure 1) toward the voluntary conservation component of SIAs from 2014 to 2019. Data is from OWEB's Grant Management System for SIA reporting and from ODA's SIA programmatic tracking and compliance database.

***Partner Accomplishments** January 2014 through December 2019*

- SWCDs were awarded $2,968,625 in OWEB SIA grants
- Attended 33 partner meetings and 27 open houses
- Submitted 13 project applications for landowner cost-share opportunities
- SWCDs contacted 351 landowners
- SWCDs/partners distributed 289 informational flyers on ag water quality
- 1-public farm tour of project sites
- 1-soil health workshop conducted

Agricultural Landowner and Operator Accomplishments

Table 4 displays progress that agricultural landowners and operators achieved to address water quality concerns on their lands as well as voluntary actions.

Table 4: SIA Initiative Agricultural Landowner and Operator Accomplishments 2014 to 2019

Streamside Areas		
Streamside Plantings (Acres)	**Streamside Plantings (Linear Stream Miles)**	**Approximate Number of Native Trees and Shrubs Planted**
69 (33 CREP*)	5.8	88,100
• 9 landowners removed ag activities from streamside areas • 5 landowners installed streamside fencing to exclude grazing • 32 pieces of large woody debris installed into streams • 36 acres of restored riparian meadow • 1 removal of fish passage barrier (culvert) • 2 off-stream watering troughs installed • 5 hardened stream crossings constructed • 1 prescribed grazing management plan		
Livestock Manure Management		
• 1 heavy use area constructed • 1 three-bay composting system constructed • 9 properties with improved manure management – disposal and cover		
Soil Erosion		
• 3 operations adopted soil health practices: conservation cover, mulching, and conservation tillage to manage soil erosion • 1 conversion to gated pipe irrigation system • 1 conversion to drip irrigation • 1 irrigation water management plan developed • 1 soil erosion plan developed • 6 farm conservation plans developed • 20 acres of invasive plants treated		

* Conservation Reserve Enhancement Program

9.3 Monitoring

As of December 2019, nine out the eighteen SIA local monitoring teams have had their first team meeting and three have developed monitoring proposals with two approved by the MAG. Data collection has begun in one SIA (2017 McKay Birch – Umatilla County) where they are monitoring sediment, nutrients, *Escherichia coli* (bacteria), and streamflow. Two SIAs may potentially begin monitoring in spring of 2020 (2017 Eightmile – Wasco County and 2018 Thirtymile – Gilliam County). The other SIAs are working to convene monitoring teams, gathering existing data, and developing their proposals.

Monitoring is expected to continue for up to ten years in each SIA. Convening a monitoring team, drafting a monitoring proposal and sampling analysis plan, sampling, data management, and analysis can take a few years to complete. OWEB and ODA will track the progress of and resources needed for monitoring and adaptively manage this approach as needed.

Monitoring plans will be unique for each SIA. Water quality data will be submitted to ODEQ. The MAG will continue to review monitoring results and ODA will summarize and report when completed analyses become available.

10. Highlights from Completed SIA Work

This section displays highlights from completed SIA projects. Compliance and voluntary work in SIAs from 2014 to 2016 is either completed or nearing completion. A sample of completed projects are displayed below.

2015 Lower North Fork Yamhill River SIA

Yamhill SWCD staff worked with agricultural landowners and producers to establish a variable 50 to 225 ft. wide riparian setback along a continuous 2.3 mile stretch of the North Yamhill River. Little to no agricultural set back was present along this 2.3 mile stretch of stream. Each landowner made a long-term commitment to establish and maintain a riparian set back by enrolling a total of 33 acres in USDA's Conservation Reserve Enhancement Program (CREP). Upon enrollment, grant funds were used to provide landowners with a $500 per acre incentive payment to offset the costs of losing production. Grant funds were also used to complete site preparation, seed native grasses, and plant 76,600 native trees and shrubs.

Photos 1 & 2 2015 North Yamhill River SIA Project Photos: Streamside Restoration - Before and After

Photo Point: Before #6
File Name: April 2017 photo point 6.jpg
Photo Description: April 2017
Photo Date: 04/06/2017

Photo Point: After #6
File Name: June 2018 photo point 6.JPG
Photo Description: June 2018
Photo Date: 06/04/2018

2015 Upper Nehalem River SIA

The Upper Nehalem Watershed Council and the Columbia SWCD partnered to complete a project on Fishhawk Creek. This tax lot was evaluated as potential violation for streamside condition. The landowners were very cooperative and wanted a long-term solution to the issues they had on their small family farm. The goal of the project was to re-establish native plants in the streamside area and to add instream habitat structures. In August of 2018, 435 ft. of bank were sloped to slow high erosion rates, which were leading to the collapse of the bank. Four large wood structures and 25 total pieces of wood were placed along 350 feet of bank. In the fall of 2018, 2,535 plants were planted along the 435 feet of creek by the Columbia River Youth Corps.

Photos 3 & 4 2015 Upper Nehalem River SIA Project Photos: Streamside Restoration - Before and After

Photo Point: Before #1
File Name: Photo_Point_1.jpg
Photo Description: Photo captured standing at the southeast corner of the shed/horse shelter, corner closest to the stream looking upstream. UTM coordinates: 473335E, 5097879N, Bearing 85°.
Photo Date: 05/31/2018

Photo Point: After #1
File Name: Photo_Point_1.JPG
Photo Description: Photo captured standing at the southeast corner of the shed/horse shelter, corner closest to the stream looking upstream. UTM coordinates: 473335E, 5097879N, Bearing 85°.
Photo Date: 09/24/2018

2015 Wagner Creek SIA

The Jackson SWCD helped agricultural landowners install best practices that curtail nonpoint source pollution generated from their properties. The practices included riparian vegetation restoration, livestock fencing, manure facilities, heavy use area protection, irrigation conversion, push up dam removal, and surface drainage. Partners included the Rogue River Watershed Council, Oregon Dept. of Fish and Wildlife, and eleven landowners. OWEB funds were used for project management, labor, equipment rental, materials, and travel to and from the sites.

Photos 5 & 6 2015 Wagner Creek SIA Project Photos: Heavy Use Area – Before and After

2016 Neil Creek SIA

This project at the Equamore Sanctuary is located on Neil Creek, two miles east of Ashland in Jackson County. Neil Creek drains into Bear Creek, a major tributary to the Rogue River. Conditions contributing to poor water quality at the site included bare ground, exposed manure piles, and livestock management. This project addressed the water quality concerns by constructing a 2,800 sq. foot manure storage structure, improving approximately 6,000 sq. feet of road surface, installing 500 feet of gated irrigation pipe and a distribution box, and nearly 10,000 sq. feet of fenced filter strips at two locations.

Photos 7 & 8 2016 Neil Creek SIA Project Photos: Fenced Filter Strips - Before and After

Photo Point: Before #3
File Name: 17-10-23_EQUAMORE.PP.7.JPG
Photo Description: Back filter strip
Photo Date: 10/23/2017

Photo Point: After #3
File Name: 19-12-16_EQUAMORE.PP.7.JPG
Photo Description: Back filter strip
Photo Date: 12/16/2019

11. Lessons Learned and Adaptive Management

With each round of SIAs, ODA and partners have applied lessons learned to continuously improve the process:

- ODA increased communication to the agricultural community, landowners, partners, stakeholders, and other agencies.
    - Conducted four webinars in November 2019 to communicate ODA's prioritization of watersheds and the newly proposed 2019 to 2023 SIA Implementation Schedule. The webinars ended with a timeframe for comment on the prioritization and schedule.
- ODA engaged landowners and the agricultural community earlier in the SIA process.
    - Revised the SIA process to include local government representatives (ex. county commissioners or local mayor), LAC members, SWCD board members, WC members, or other interested landowners.
- ODA completed a 2019 to 2023 SIA Implementation Schedule by Management Areas to help align and plan future SIA work with partners.
- ODA developed a SIA Partner Overview booklet to provide guidance on the SIA process and partner engagement in SIAs.
    - Drafted a recommended SIA implementation timeline for ODA and partners that allows for flexibility and adaptation in the process as well as time to develop community relationships and for improvements to be accomplished.

- ODA added a local SIA Planning Meeting to the SIA process to provide insight from local partners regarding local water quality concerns, aligning programs and priorities, and to discuss potential areas for SIA work.
    - The MAG and ODA have developed technical and informative materials to help local monitoring teams begin their monitoring proposals.

The partners are also exploring opportunities to continue to improve coordinated streamside management and address the following challenges:

- Local partner capacity is a challenge in some parts of the state.
- State resources limit the number of SIAs where we can work each year.
- Land ownership changes can mean that our work is never done - land conditions can change rapidly with a change in ownership.
- Legacy issues, such as down cutting of a stream channel, can limit the potential of a site to achieve conditions that meet state water quality goals.
- Monitoring results can take a long time to demonstrate change in response to management actions. In addition, monitoring funding is limited in general.

COVID – 19 NOTES: At the time of completing the 2014 to 2019 SIA progress report, the COVID-19 outbreak of 2020 disrupted the 2019 cycle of Open Houses. ODA has been working closely with local partners to identify work-arounds as we consider alternatives to the process. This may include postponing the Open House, sharing information with key community leaders, or contacting landowners of tax lots with potential violations to discuss the process.

With that stated, the 2020 cycle of SIAs has also been disrupted due to COVID-19. ODA has been able to complete many of the planning meetings for the 2020 cycle through remote and video conferencing technology. SIA HUC selection is ongoing for each of the nine scheduled SIAs for 2020, and where possible, remote evaluations are scheduled to be completed. All other 2020 SIA activities are delayed until COVID-19 concerns are lessened.

Appendix A: 2019 to 2023 SIA Schedule

The SIA Implementation Schedule is open to changes and rescheduling as needed.

2019

- A - Coos-Coquille
- A - Inland Rogue
- A - Klamath Headwaters
- A - Tualatin River
- C - Upper Grande Ronde
- C - Willow Creek
- D - Goose and Summer Lakes

2020

- A - Clackamas Subbasin
- A - Inland Rogue
- A - Molalla/P/FP/North
- A - North Coast
- A - Yamhill
- B - Mid-Coast
- B - Lower Deschutes
- B - Middle Deschutes
- C - Wallowa

2021

- A - John Day River-North & Middle Forks
- A - Upper Willamette
- A - South Santiam
- A - Umpqua Basin
- B - Crooked River
- B - Upper Deschutes
- B - Umatilla
- C - Burnt River
- C - Walla Walla

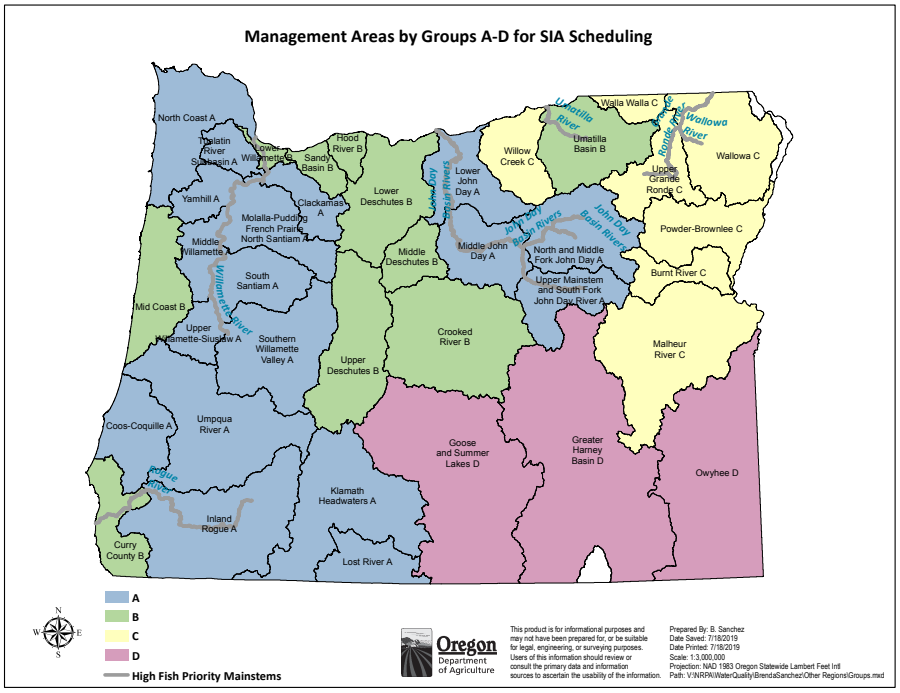
2022

- A - Lost River
- A - Middle John Day
- A - Southern Willamette
- A - Tualatin River
- B - Hood River
- B - Sandy Subbasin
- C - Malheur
- C - Powder-Brownlee
- D- Greater Harney Basin

2023

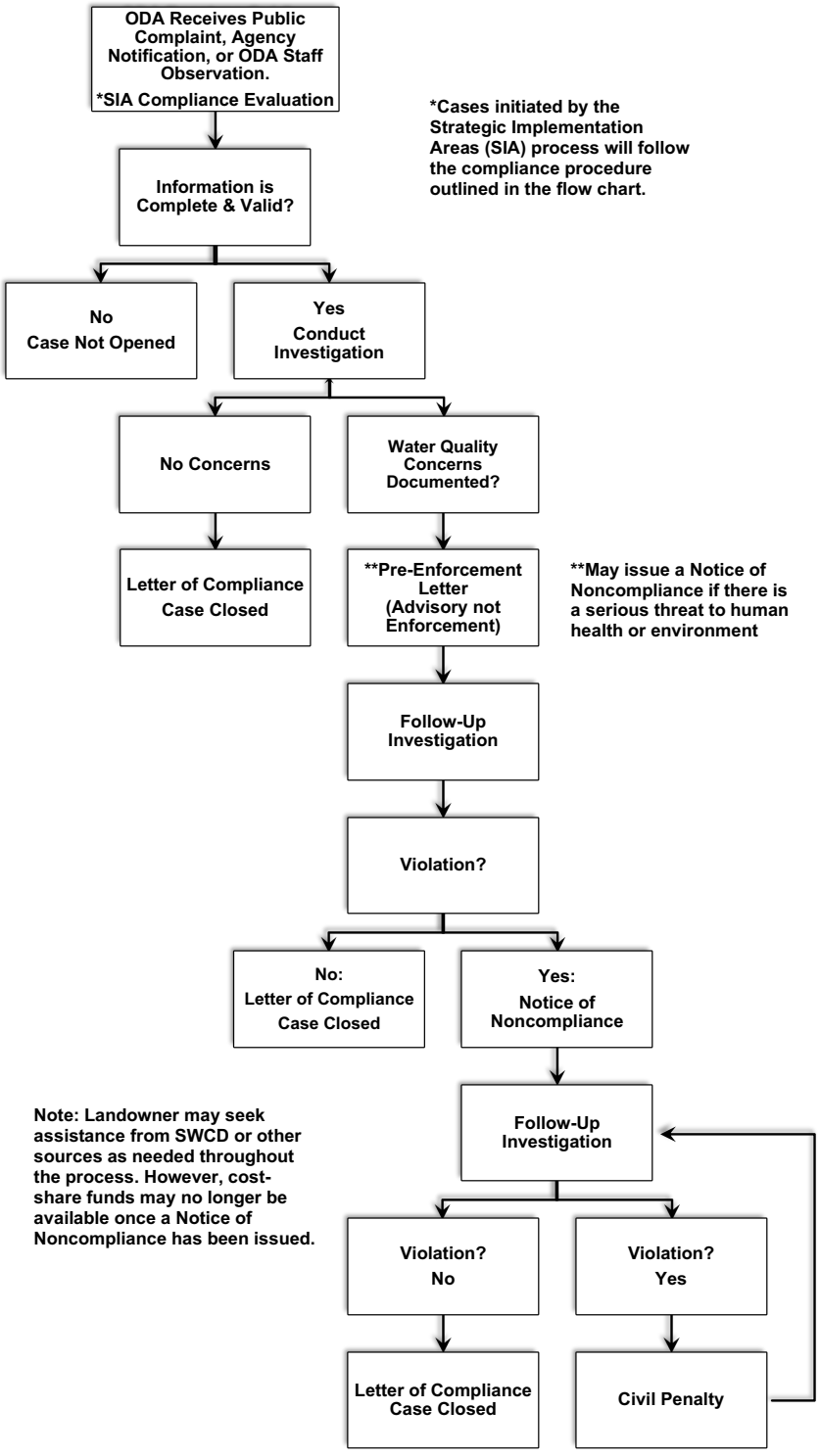
- A - Klamath Headwaters
- A - Lower John Day
- A - John Day-Upper Mainstem & South Fork
- A - Middle Willamette
- B - Curry
- B - Lower Willamette
- B - Mid-Coast
- C - Wallowa
- C - Willow Creek

D – Owyhee was not scheduled in the 2019 – 2023 and will be considered for the 2024-2027 schedule.



- **Group A Management Areas – Highest Priority**
- **Group B Management Areas – Moderate-High Priority**
- **Group C Management Areas – Moderate-Low Priority**
- **Group D Management Areas – Lowest Priority**

Appendix B: Compliance Process Chart



Appendix C: Evaluation Results by SIA 2014 to 2019

Map # (Page 1)	SIA Name	AgWQ Management Area	# Ag Parcels	Open Closed	Limited Opportunity (L)	Low Opportunity (LO)	Opportunity (OPP)	Potential Violation (PV)
1	Mill Creek	Lower Deschutes	315	Closed	291	14	6	4
2	Noyer Creek	Clackamas	237	Closed	200	19	16	2
3	Johnson Cr.	Lwr. Willamette	766	Closed	695	48	23	0
4	Threemile Cr.	Lower Deschutes	254	Closed	241	6	4	3
5	Lwr. Salt Cr.	Mid-Willamette	453	Open	378	39	29	7
6	Lwr N Yamhill	Yamhill	260	Closed	225	17	14	4
7	Indian Ford	Mid-Deschutes	100	Closed	77	3	12	8
8	Lwr. Wagner	Inland Rogue	289	Closed	234	40	12	3
9	Upr. Nehalem	North Coast	134	Closed	104	21	7	2
10	Odell Creek	Hood River	443	Closed	404	29	8	2
11	Abiqua Creek	Molalla-Pudding	687	Closed	644	34	1	1
12	Cache Hollow	Umatilla	233	Closed	227	6	0	0
13	Neil Creek	Inland Rogue	297	Closed	274	19	3	1
14 & !5	Nehalem Bay & NF Nehalem	North Coast	576	Closed	540	15	20	1
16	McKay Creek	Umatilla	587	Open	550	29	6	0
17	Mid-Nehalem	North Coast	226	Closed	204	10	11	1
18	Eightmile Cr.	Lower Deschutes	210	Open	191	7	12	0
19	Camp Creek	S. Willamette	245	Open	216	21	6	2
20	Pistol River	Lower Deschutes	108	Open	97	5	6	0
21	Thirtymile Cr.	Mid-Willamette	352	Open	318	20	12	2
22	LNF Malheur	Malheur River	173	Open	158	11	1	3
23	Walker-Stout	Molalla-Pudding	532	Open	504	20	4	4
24	Lwr. Powder	Baker Valley	163	Open	152	8	2	1
25	U. Sprague R.	Klamath HW	336	Open	296	23	11	2
26	Drewsey	Malheur River	129	Open	112	14	2	3
27	U. Muddy Cr.	Mid-Willamette	274	Open	247	13	14	0
28	Mid-Sprague	Klamath HW	Not Available	Open	Remote Evaluation Not Completed. COVID-19 Pause			
29	Lwr. Gales	Tualatin	577	Open	498	39	36	4
30	Lwr. Coquille	Coos-Coquille	385	Open	297	70	13	5
31	Upr. Catherine	Grand Ronde	421	Open	379	27	13	2
32	Chewaucan	Goose & Summer	86	Open	75	3	8	0
33	Upr. Willow	Willow Creek	313	Open	284	25	3	1
34	Applegate R.	Inland Rogue	1,736	Open	1,609	97	30	0