



# Voluntary Clean Water Guidance for Agriculture

## Introduction

### Water Quality Program

Washington State Department of Ecology  
Olympia, Washington

December 2022, Publication 20-10-008

## Publication Information

This document and completed chapters are available on the Department of Ecology's website at: <https://apps.ecology.wa.gov/publications/summarypages/2010008.html>

## Contact Information

### Water Quality Program

P.O. Box 47600

Olympia, WA 98504-7600

Phone: 360-407-6600

**Website**<sup>1</sup>: [Washington State Department of Ecology](http://www.ecology.wa.gov)

## ADA Accessibility

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request an ADA accommodation, contact Ecology by phone at 360-407-6600 or email at [ben.rau@ecy.wa.gov](mailto:ben.rau@ecy.wa.gov). For Washington Relay Service or TTY call 711 or 877-833-6341. Visit Ecology's website for more information.

---

<sup>1</sup> [www.ecology.wa.gov/contact](http://www.ecology.wa.gov/contact)

# Department of Ecology's Regional Offices

## Map of Counties Served



<b>Southwest Region</b> 360-407-6300	<b>Northwest Region</b> 206-594-0000	<b>Central Region</b> 509-575-2490	<b>Eastern Region</b> 509-329-3400
---	---	---------------------------------------	---------------------------------------

Region	Counties served	Mailing Address	Phone
<b>Southwest</b>	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
<b>Northwest</b>	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
<b>Central</b>	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
<b>Eastern</b>	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
<b>Headquarters</b>	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

# Voluntary Clean Water Guidance for Agriculture

---

## Introduction

Water Quality Program  
Washington State Department of Ecology  
Olympia, WA

**December 2022 | Publication 20-10-008**



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# Table of Contents

**Acknowledgements ..... 7**  
    Department of Ecology Staff/Authors .....8  
    Contract Support Provided by Ross Strategic .....8

**Introduction..... 9**  
    Guidance Development and Content .....9  
    Decisions Concerning Implementation Remain in the Hands of Producers .....10  
    Alternative Practices .....11  
    How Ecology Will Use this Guidance .....11

# Voluntary Clean Water Guidance for Agriculture Chapters

A phased approach is being used to develop these guidelines. During the first phase an overview of the guidance was produced along with its initial chapter which examines tillage and residue management practices. Additional chapters not completed though anticipated for inclusion in the overall guidance are listed below. These chapters will be completed in the following several years. Producers who are interested water quality guidance related to practices not yet addressed can contact Ecology's Agriculture and Water Quality Planner Ron Cummings at [ron.cummings@ecy.wa.gov](mailto:ron.cummings@ecy.wa.gov) or (360) 407-6600.

**Chapter 1** Cropping Methods: Tillage & Residue Management-Completed (December 2022)

**Chapter 2** Cropping Methods: Crop System-*In development*

**Chapter 3** Nutrient Management-*In development*

**Chapter 4** Pesticide Management-*In development*

**Chapter 5** Sediment Control: Soil Stabilization & Sediment Capture (Vegetative)-*In development*

**Chapter 6** Sediment Control: Soil Stabilization & Sediment Capture (Structural)-Completed (December 2022)

**Chapter 7** Water Management: Irrigation Systems & Management-*In development*

**Chapter 8** Water Management: Field Drainage & Drain Tile Management-*In development*

**Chapter 9** Water Management-Stormwater Control & Diversion-*In development*

**Chapter 10** Livestock Management-Pasture & Rangeland Grazing-Completed (December 2022)

**Chapter 11** Livestock Management-Animal Confinement, Manure Handling & Storage-*In development*

**Chapter 12** Riparian Areas & Surface Water Protection-Completed (December 2022)

**Chapter 13** Suites of Recommended Practices-*In development*

## Acknowledgements

Ecology gratefully acknowledges the valuable time, comments, and expertise provided by the people listed below who contributed to the Voluntary Clean Water Guidance for Agriculture. Ecology is solely responsible for any errors, omissions, and final decisions related to the Voluntary Clean Water Guidance for Agriculture.

<b>Name</b>	<b>Affiliation</b>	<b>Name</b>	<b>Affiliation</b>
Adam Carney	Washington Farm Bureau	Jennifer Boie	Palouse Conservation District
Allen Casey	NRCS	Jerry White	Spokane Riverkeeper
Alyssa Barton	Puget Soundkeeper	Joan Wu	WSU
Ash Roorbach	Northwest Indian Fisheries Commission	John Stuhlmiller	Washington Farm Bureau
Ashely House	Washington Cattlemen's Association	Joshua Monaghan	King Conservation District
Ben Tindall	Washington Farm Bureau	Kim Weerts	Washington Cattlemen's Association
Bob Amrine	Lewis Conservation District	Laura Redmond	King Conservation District
Bob Vadas	WDFW	Megan Weldon	King Conservation District
Bobbi Lindemulder	Snohomish Conservation District	Nichole Embertson	Whatcom Conservation District
Bonda Habets	NRCS	Nick Peak	EPA
Brian Cochrane	State Conservation Commission	Nick Vira	NRCS
Bruce Wishart	Puget Soundkeeper	Randy Honcoop	Farmer
Caleb Gwerder	Washington Farm Bureau	Robert Evans	NRCS
Chelsea Hajny	Washington Cattlemen's Association	Ron Scheibe	Farmer
Cindy Dittbrenner	Snohomish Conservation District	Sean Dixon	Puget Soundkeeper
David Huggins	WSU	Steven Fransen	WSU-Extension
Evan Sheffels	Washington Farm Bureau	Tim Quinn	WDFW
Gary Bahr	WSDA	Tip Hudson	Cattleman's Association
George Wilhere	WDFW	Tom Davis	Washington Farm Bureau
Harold Crose	NRCS-retired	Tom O'Brien	WDFW
Jack Field	Washington Cattle Feeders Association	Tracy Eriksen	Farmer
Jana Compton	EPA	Will Pan	WSU
Jay Gordon	Washington State Dairy Federation		

## **Department of Ecology Staff/Authors**

- Ron Cummings
- Anthony Whiley
- Patrick Lizon
- Ben Rau

## **Contract Support Provided by Ross Strategic**

- Elizabeth McManus
- Mary Byrne
- Samer Khan
- Angela Cruz



# Introduction

The purpose of this guidance is to describe best management practices (BMPs) that agricultural producers can use to protect water quality. It is intended to both support healthy farms while helping producers meet clean water standards. The federal Clean Water Act requires the Department of Ecology (Ecology) to develop and maintain guidance on BMPs to protect water quality. Section 319 of the Clean Water Act requires that State nonpoint source (NPS) management programs “identify best management practices and measures to control each category and subcategory of nonpoint sources...” Guidance from the United States Environmental Protection Agency (EPA) further establishes that state NPS management programs must include an “identification of measures (i.e., systems of practices) that will be used to control NPS pollution, focusing on those measures which the state believes will be most effective in achieving and maintaining Water Quality Standards.” Section 319 Program Guidance: Key Components of an Effective State Nonpoint Source Management Program (November 2012).

## Guidance Development and Content

The Voluntary Clean Water Guidance for Agriculture is being developed in a series of chapters with ongoing collaboration and advice from an advisory group which includes Conservation Districts, the State Conservation Commission, the Washington State Department of Agriculture, the Natural Resources Conservation Service, the Environmental Protection Agency, the Northwest Indian Fisheries Commission, and other agricultural and conservation experts.

Chapters 1-12 address different types of conservation practices, such as tillage and residue management practices (addressed in Chapter 1), and provide information on:

- Practices that best prevent water pollution and protect water quality;
- Anticipated performance of BMPs relative to specific types of water quality pollutants;
- How BMPs can be implemented to best protect water quality in most situations; and
- Implementation considerations such as capital costs, operation and maintenance costs, and equipment requirements, with an emphasis on providing practical information that can help producers determine how to incorporate a BMP into their agricultural operation.

The final chapter (Chapter 13 - Suites of Recommended Practices) will provide information on the combinations of recommended practices from the prior chapters that different types of agricultural operations can implement to address their operation specific water quality concerns (i.e., control of nutrients, pathogens, pesticides, sediment, and temperature). Given the amount of information included in this guidance and its inherent complexity, it will be reviewed and updated periodically to reflect implementation experience and as new technical information becomes available.

Page 6 includes a list of the planned chapters. A description of the advisory group process is available at the [Ecology Voluntary Clean Water Guidance website](#),<sup>2</sup> and a list of advisory group members is included in the acknowledgments.

## Decisions Concerning Implementation Remain in the Hands of Producers

Not all practices will apply to all production operations. This guidance does not prescribe a single approach or set of practices for all farms or create new regulatory requirements. Compliance with the State Water Pollution Act, which protects state waters, continues to be required of farmers just as it is required for all other land uses. However, decisions about how to achieve compliance, about whether to implement recommended BMPs, and about which practices to choose, remain in the hands of the producer. This guidance is intended as a technical resource to support and inform those decisions.

Developing guidance for the agricultural sector presents challenges. Each farm is unique, and each producer is managing a unique set of site, soil, crop types, economics and available incentives, producer confidence in the practice, and climate factors. Conservation planning often addresses numerous conservation and production goals, of which water quality protection is likely only a part. This guidance assesses common conservation practices oriented at protecting water quality. It recommends BMPs that best protect water quality and support meeting water quality standards. Ecology recommends that this information be considered during the farm planning process and when producers are deciding which practices to implement.

**If an operation uses suites of practices consistent with the recommendations in this guidance and appropriate to all farm-specific pollutants and water quality concerns, Ecology will presume that water quality is being adequately protected by the operation.** Providing this certainty and predictability to producers and farm planners is one of the main goals of this guidance.

The Voluntary Clean Water Guidance for Agriculture is intended as a technical resource for the agricultural community and to complement existing guidance on agricultural conservation practices, such as the Natural Resources Conservation Services (NRCS) Field Office Technical Guides (FOTGs). It does not replace the FOTGs or the farm planning process and does not establish new regulatory requirements. The BMPs identified here should be considered during the farm planning process and when producers are making decisions about which practices to implement to protect water quality.

---

<sup>2</sup> <https://ecology.wa.gov/About-us/Accountability-transparency/Partnerships-committees/Voluntary-Clean-Water-Guidance-for-Agriculture-Adv>

## Alternative Practices

Producers are not required to use the practices recommended here. However, using the recommended practices has the advantage of providing practice-based certainty and predictability because the practices have been specifically evaluated for their protection of water quality.

Producers may choose to demonstrate to Ecology that alternative management practices are as effective in preventing water pollution for their operation. If a producer decides to go this route, Ecology recommends they consult with the regional NRCS office or local conservation district for technical assistance. Ecology remains responsible for determining if water quality is protected.

## How Ecology Will Use this Guidance

Ecology will use this guidance in making funding decisions for grant programs, to inform watershed cleanup plans, to provide certainty and predictability to producers, and to provide technical assistance, education, and outreach. This guidance can also be used by other natural resource programs to support their recommendations to landowners when developing projects to protect water quality. Table 1 describes intended audiences and uses for this guidance in more detail.

As described earlier, if a producer uses suites of practices consistent with the recommendations in this guidance and appropriate to all farm-specific pollutants and water quality concerns, Ecology will presume that water quality is being adequately protected by the operation.

However, despite this presumption, if there is a documented discharge of pollution to state waters that has a significant impact on human health or the environment, Ecology may take additional action, even if BMPs are in place. Additional actions could include working with a producer to implement additional practices or to improve execution of existing practices.

In addition, the practice-specific effectiveness information in this guidance, and the associated technical documentation, could be used as a starting point for developing a trading program. A trading program requires a system that quantifies expected pollutant reductions. The effectiveness information in this guidance provides reference information that can be used for developing a system to make those calculations. However, this guidance does not provide the specificity necessary to implement a trading program within a particular watershed. For that to occur additional work that quantifies pollutant reduction levels will be required. More information on water quality trading can be found on Ecology's [Individual Permit webpage](https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-quality-permits/Water-Quality-individual-permits).<sup>3</sup>

---

<sup>3</sup> <https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-quality-permits/Water-Quality-individual-permits>

Table 1. Intended uses and audiences for this agricultural BMP Guidance

Uses	Intended Purpose	Audience
<b>Ecology Funding Guidelines</b>	Inform changes to the funding guidelines (e.g. additional/new BMPs that could be eligible; develop design criteria to achieve optimal pollutant removal effectiveness)	<ul style="list-style-type: none"> <li>• Grant Recipients</li> <li>• Ecology Grant Managers</li> </ul>
<b>TMDLs (watershed clean-up plans)</b>	Provide technical information to support implementation plans and describe practices to achieve reductions necessary to meet load allocations. The recommended BMPs will be used as a starting point but may be modified based on watershed specific information or modeling.	<ul style="list-style-type: none"> <li>• Ecology TMDL staff</li> <li>• TMDL implementation partners</li> </ul>
<b>Technical Assistance</b>	Provide technical information about BMPs that are effective at preventing water pollution and support meeting water quality standards.	<ul style="list-style-type: none"> <li>• Ecology nonpoint field staff</li> <li>• Conservation Districts (CD), Natural Resources Conservation Service (NRCS), Local Government staff</li> </ul>
<b>Education and Outreach</b>	Provide technical information on BMPs effective at preventing water pollution and that support meeting water quality standards. Can be used to help develop outreach materials.	<ul style="list-style-type: none"> <li>• Ecology communications staff</li> <li>• CDs, local governments, NRCS, other water quality focused groups</li> <li>• WSU Extension</li> </ul>
<b>Certainty</b>	Provide certainty to planners and landowners (i.e. what practices are effective at protecting water quality standards)	<ul style="list-style-type: none"> <li>• Landowners/ Agriculture producers</li> </ul>