

Agricultural Drainage Channel Maintenance

Interim Manual of Best Management Practices

11/2020

INTRODUCTION AND BACKGROUND

In 2019, Oregon legislation (HB 2437) authorized limited maintenance activities without a Removal-Fill permit from the Oregon Department of State Lands (DSL) in dry, traditionally maintained, agricultural drainage channels under certain circumstances. Oregon has codified the legislation at Oregon Revised Statute (ORS) 196.906 through 196.919, and in Oregon Administrative Rules (OAR) 603-095-4000 through 603-095-4060.

This new notice-based process has been developed and administered by the Oregon Department of Agriculture (ODA) to simplify the process by which agricultural landowners may maintain their agricultural drainage channels. This process ensures that any maintenance is conducted in a manner that protects, maintains, or improves ecological functions of the channels; upholds state objectives for fish recovery; and protects wetlands, waterways and fish and wildlife habitats.

This interim manual covers the requirements and best management practices (BMPs) for Agricultural Drainage Channel Maintenance projects. This interim manual is meant to help landowners and water districts improve the drainage on their property within the regulations

Some pieces of this manual have been adapted from artwork from King County, Washington, IT Design and Civic Engagement Unit.

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<https://oda.direct/SWCDDirectory>

OREGON DEPARTMENT OF AGRICULTURE | OREGON DEPARTMENT OF STATE LANDS
OREGON DEPARTMENT OF FISH AND WILDLIFE



For updates by email:
<https://oda.direct/AgChannelUpdates>

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Before starting work

The Oregon Legislature worked to streamline and simplify the state process for working in channels that drain agricultural lands. There are other state and federal programs that you must be aware of prior to working in drainage channels in Oregon.

- **Oregon Tribes cultural resources.** Oregon protects archaeological objects and sites of cultural importance to Oregon Tribes that may be located within submerged and submersible lands. A person “may not excavate, injure, destroy or alter an archaeological site or object or remove an archaeological object located on public or private lands in Oregon unless that activity is authorized by a permit issued under ORS 390.235.” ORS 358.920. Protecting human remains and articles relevant to human burial are especially protected. Additional information is available at <https://www.oregon.gov/oprd/OH/Documents/Bulletin1.pdf> and at the Oregon Heritage State Historic Preservation Office at (503) 986-0690. and oregon.heritage@oregon.gov.
- **Fish passage.** It is state law to provide fish passage in all waters of the state that were historically or are presently occupied by native migratory fish (ORS 509.585). To avoid blocking or delaying fish passage and ensure that fish are not stranded, injured, or killed, channel maintenance actions shall ensure no physical obstructions remain in the channel that can block or delay migrating fish (upstream and downstream), and leave no holes or vertical steps in the channel bed.
- **Federal permits and review.** This work may require a federal permit (called a Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers). If so, this would trigger the need for a certification from the Oregon Department of Environmental Quality (called a Section 401 Certification or water quality review). If this is the case, maintenance work could not begin until these approvals are in place. It is the applicant’s responsibility to obtain these approvals if required.
- **Federal conservation program eligibility.** Conducting drainage channel maintenance work under an ODA notification may conflict with conservation programs of the United States Department of Agriculture (USDA). If you are a USDA Farm Bill Program Participant or are interested in USDA Programs please contact your local Soil and Water Conservation District <https://oda.direct/SWCD> or USDA Service Center

1. Make sure the channel meets the following eligibility requirements:

- The channel must NOT be designated as an Essential indigenous Anadromous Salmonid Habitat (ESH) by DSL ([map at https://chetco-new.dsl.state.or.us/esh2017/](https://chetco-new.dsl.state.or.us/esh2017/))
- The channel has been traditionally maintained for agricultural drainage at some point in the past. A traditionally maintained channel:
 - » Has been routinely subject to maintenance to facilitate drainage related to farming or ranching and
 - » Has been serviceable for facilitating drainage within the past five years.
- The channel will be dry when you want to do the work
- Work will be done during the Regional Drainage Maintenance Time Period (see below)

If your proposed work does not meet these eligibility criteria, contact ODA. Your work may require a “removal-fill” permit from DSL.

<https://offices.sc.egov.usda.gov/locator/app> to determine if you need to update your AD-1026 Highly Erodible Land and Wetland Conservation Certification form based on your planned channel maintenance activities.

- **Noxious Weeds.** Project site recovery and restoration is important to keep the site stable and safeguard the maintenance investment. To maintain agricultural quality standards and protect fish and wildlife habitat, revegetation of these sites must not result in the establishment of noxious weeds as identified by the ODA has an A List Weed or B List Weed. For a list of these weeds and additional guidance, see: <https://oda.direct/NoxiousWeedLawsLists>

Before starting work

2. Plan work during your Regional Drainage Maintenance Time Period, which is determined by Oregon Department of Fish and Wildlife for different regions.

The link to the RDMT Period is under development. However, the map for the Regional Drainage Maintenance Time Period in the Willamette Valley is provided below. The RDMT period for other parts of the state are under development. We will provide the link to the state's RDMTs in an updated version of this document

North Willamette River Watershed: Aug. 1 – 31

Definition = Willamette River watershed downstream of the Santiam River, including: Johnson Creek, Clackamas River, Abernathy Creek, Tualatin River, Beaver Creek, Molalla-Pudding Rivers, Corral Creek, Chehalem Creek, Yamhill River, Spring Valley Creek, Glenn Creek, Mill Creek, Rickreall Creek, Ash Creek, and all other small tributaries to the Willamette River

South Willamette River Watershed: Aug. 1 – Sept. 15

Definition = Willamette River watershed upstream from and including the Santiam River, including: Santiam River, Luckiamute River, Sidney Ditch and intersecting tributaries, Truax Creek, Burkhart Creek, Cox Creek, Periwinkle Creek, Calapooia River, Frazier Creek, Stewart Slough, Mary's River, Lake Creek, Muddy Creek, Flat Creek, Long Tom River, McKenzie River, Middle Fork Willamette River, Coast Fork Willamette River, and all other small watersheds, side channels, and oxbows

Willamette Watershed Map for Dry Maintenance Time Periods



3. Ensure that your project will not:

- Enlarge or damage an existing water right.
- Violate any condition in the applicable valid notice.
- Convert any wetlands to uplands.
- Alter channels to allow for storage of water that could be used for irrigation or exceed the historic capacity of the channel.
- Be conducted in channels other than traditionally maintained channels.

4. Make sure ODA validates your Notice. ODA will post valid Notices on its website and notify you.

<https://oda.direct/AgDrainageChannelMaintenance>

During Construction

1. The maintained channel must stay dry for the duration of the maintenance activity.

If standing water is present, but not flowing, the landowner must go through the variance process. The Variance Request form is available from ODA.

2. Projects must be completed within your Regional Drainage Maintenance Time Period.

If work outside the RDMT is needed, request a variance from ODA. The form is available at the ODA website.



3. Keep the body of any motorized equipment on top of the bank of the channel.

- Minimize ecological impacts by only using the north or east bank.
- If the channel must be crossed, motorized equipment must use an existing crossing.



4. Excavate the bottom of the channel so that it has a smooth grade; do not leave depressions or vertical steps in the channel bed.

- Ensure that there are no physical obstructions in the channel that could block or delay migrating fish (upstream and downstream) and ensure that fish are not stranded, injured or killed.

The type of equipment used can greatly influence how successful the project is. The equipment boom must be long enough to reach the bottom of the waterway while staying off the waterway side slopes. A toothless bucket can be a good way to minimize disturbance of material below the historic waterway bottom. If a toothless bucket is unavailable, a steel plate could be welded to the teeth.

5. The location of the channel must not change.

6. Removed material must be placed to prevent it from re-entering the channel.

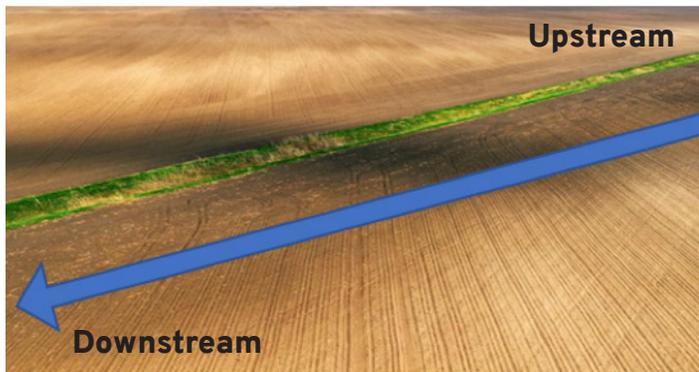
Landowners and water control districts should have a contingency plan in place to contain removed sediment from entering surface waters as a result of flooding or severe weather.

- Must include gaps to allow floodwaters to access fields upland of the channel.
- Plan for alternate disposal of excavated material that contains invasive species (e.g. reed canary grass), so that the invasive species does not spread in the temporary and permanent disposal areas.

During Construction

7. Begin the project at the most upstream location and proceed downstream.

- Minimize ecological impacts by only using the north or east bank.
- If the channel must be crossed, motorized equipment must use an existing crossing.



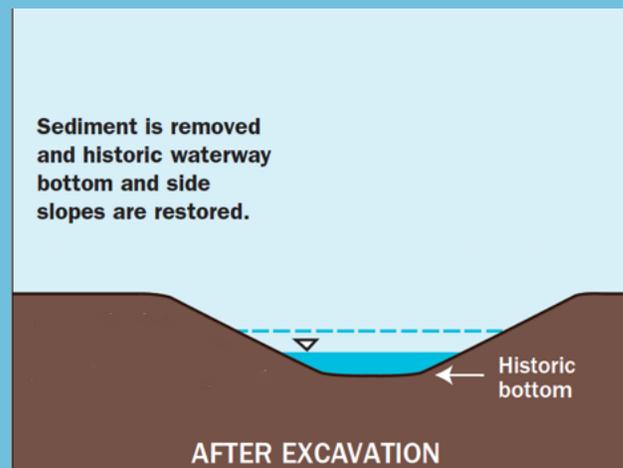
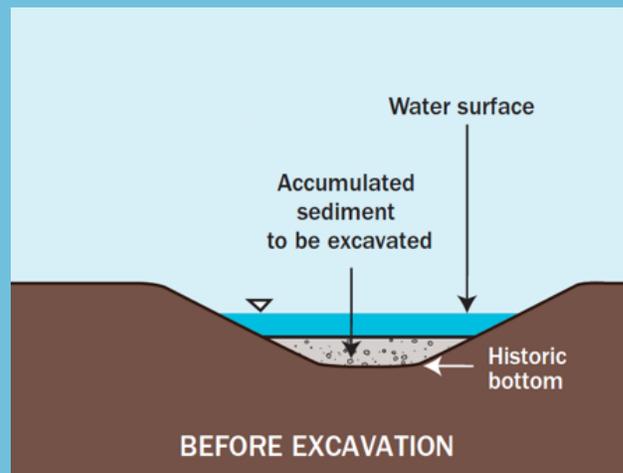
8. Material removed from the channel can be placed adjacent to the channel temporarily to dry.

- If the area adjacent to the channel is a wetland or converted wetland, this material must be moved to uplands or spread outside of the riparian area no later than one year after the date of completion.
- This project may not convert wetland to uplands or change the depth or functionality of a wetland.
- Impacts to wetlands must be temporary and limited to accessing the site and interim placement of material.

9. Existing inlet or outlet connections must not be altered.

10. Maintenance activities must not increase the depth or width of the channel beyond what has been routinely maintained to facilitate drainage.

Excavation Limits



After Construction

1. Revegetation

- Revegetate disturbed areas with appropriate erosion control seed; mulch with straw as necessary
- Revegetation must occur for any riparian areas that serve as a buffer adjacent to the channel and that experience vegetation loss as a result of the maintenance activity.
- This condition is satisfied whether revegetation occurs naturally or after seeding.
- Revegetation shall result in adequate ground cover to keep the banks stable and prevent erosion.
- Revegetation shall not result in the establishment of noxious weeds as identified by ODA as an A List or B List Weed at the time of the revegetation work
- Consider planting native shrubs/trees on channel bank to reduce erosion, decrease water temperatures, and maintain fish and wildlife habitat.



Spread grass seed and straw on all disturbed areas above the waterline. Minimizing disturbed areas during construction can reduce erosion control costs.

2. Monitor erosion control and revegetation efforts.



Planting tubes can protect plants when weed wacking will be required (and reduce overall costs). They also protect plants from animals.