



Setbacks/Buffers Affecting Public Drinking Water Supplies

While there are statewide setbacks near water sources for various land uses or facilities in the Oregon Health Authority and Oregon Water Resources Department rules, there are no statewide buffers for streams. A riparian corridor is the land area adjacent to a river, stream, or other waterbody that serves as a transition zone between aquatic and terrestrial ecosystems. These corridors typically include vegetation such as trees, shrubs, and grasses that help stabilize the banks and support biodiversity. Riparian corridors filter pollutants, reduce erosion and sedimentation, help absorb excess nutrients, regulate temperature, and enhance groundwater infiltration, replenishing aquifers that supply drinking water. There is no overall comprehensive riparian corridor management strategy or framework in state law or rule. However, Oregon agencies implement a range of regulations and programs that influence how riparian areas on public and private land are managed. This table provides a summary of setbacks and buffers affecting public drinking water supplies in Oregon.

General setbacks and buffers

Agency	Program	Statutes / Rules	Areas of application	Setbacks or buffers for public water systems	Notes/Reference
Oregon Health Authority Drinking Water Services	Safe Drinking Water Act	ORS 448 OAR 333-061-0005 thru 0295	Enacts drinking water standards, regulatory monitoring and enforcement.	100' required ownership or easement around well; 100' setback for sewage disposal and solid waste; 50' setback for septic tanks and pipes.	
Department of Environmental Quality	Clean Water Act	ORS 468/468B OAR 340-040-0140 thru 0210 OAR 340-041-0001 thru 0061	Implements water quality standards in drinking water source areas. Applies to all waters of the state.	No statewide stream buffers. Temperature total maximum daily loads require effective shade targets of some other surrogate for Designated Management Agencies.	Total Maximum Daily Loads
Department of Land Conservation and Development	Statewide Land Use Planning Goals	ORS 197.175 OAR 660-015, 016,023	Implements land use planning rules.	No statewide stream buffers. Comprehensive plans or local ordinances may apply.	DLCD rules require riparian protection in comprehensive plans and zoning, including setbacks of 50 to 75 feet or alternative protection methods. These requirements do not apply to all jurisdictions.

Translation or other formats

Department of Forestry	Forest Practices Act	ORS 527.630 ORS 527.710 ORS 527.797 OAR 629-630 thru 655	Implements forest management rules on state and private forests.	Varies by stream – see information below under Forestry Setbacks and Buffers.	For forest operations on state or private lands, water quality standards are attained and implemented through best management practices and other mechanisms established under the Forest Practices Act (ORS 527.610 to 527.992) and rules administered by the Oregon Department of Forestry. DEQ works with ODF to revise the Forest Practices program if necessary to attain water quality standards [ORS 527.724, 765 & 770; OAR 340-041-0061(8) & 340-042-0080(2)]. Oregon revised the Forest Practices Act in 2022 and 2023, following changes negotiated under the Private Forest Accords/Habitat Conservation Plan process for private forestlands.
Department of Agriculture	Agriculture Water Quality Management Act (SB 1010)	ORS 568.900 thru 568.933 ORS 561.191 OAR 603-090 thru 095 OAR 340-041-0061(12)	Implements agriculture management rules on private agricultural lands.	No statewide buffers. Water quality protected through variety of practices, including buffers.	Agricultural water quality management plan to reduce agricultural nonpoint source pollution are developed and implemented by the Oregon Department of Agriculture through a cooperative agreement with DEQ. If DEQ has reason to believe that agricultural discharges or activities are contributing to water quality problems resulting in water quality standards violations, DEQ may consult with ODA. If water quality impacts are likely from agricultural sources, DEQ may request that such a management plan be prepared and implemented to reduce pollutant loads and achieve the water quality criteria.
Oregon Water Resources Department	Ground Water Act of 1955	ORS 537 OAR 690-210 and 690-215	Restricts placement of water supply wells	Setbacks include 50' for septic; 100' for sewage disposal or line; 50' from CAFO; 100' from sewage sludge disposal; 500' from hazardous waste storage.	

Forestry setbacks and buffers

The Oregon Forest Practices Act sets standards for all commercial activities involving the establishment, management, or harvesting of trees on Oregon's forestlands. During the 2020 and 2022 sessions, the legislature changed the FPA to implement the Private Forest Accord agreements between forest landowner and conservation group representatives and to reform forest practices on non-federal forestlands in Oregon: Senate Bill 1602 (2020 session) and Senate Bills 1501 and 1502 and House Bill 4055 (2022 session). These bills make changes to harvest protections for riparian areas and landslide-prone steep slopes, road requirements (including those for abandoned roads), herbicide application via helicopter, mitigation funding, conservation incentives for small forestland owners, compliance auditing, and adaptive management/ effectiveness monitoring. [Read the details on the Private Forest Accord and changes to the State's forestry program.](#)

Private forest riparian buffers for streams

Under Oregon Forestry regulations, there are different types of streams and sizes of streams. Forestry regulations have riparian management areas that vary by stream type and size.

Types of streams (perennial or intermittent)

- Type SSBT Streams = streams with salmon, steelhead, or bull trout habitat west of the Cascade crest; may have domestic water use.
- Type F Streams = has salmonids and/or game fish; may have domestic water use.
- Type D Streams = within 300ft of domestic water intake and has no protected fish.
- Type N Streams = includes all other streams.
 - Np = perennial Type N streams.
 - Ns = seasonal Type N streams.

Three sizes of streams (perennial or intermittent)

- Small = average annual flow of two cubic feet per second (cfs) or less or any stream with a drainage area less than 200 acres. Small streams generally have widths of four feet or less.
- Medium = average annual flow greater than two and less than 10cfs. Medium streams generally have widths of 4-10 feet.
- Large = average annual flow greater than 10cfs. Large streams generally have widths of greater than 10 feet.

Riparian management areas

Forestry regulations have riparian management areas that vary by stream type and size. More stringent rules apply to large (industrial) forestland owners. All streams have requirements for 35ft-wide equipment limitation zones during harvest, which includes retention of shrubs and non-merchantable trees. Note that all distances in the Riparian Management Area Matrix Tables are in feet from the bank at full width (edge of ordinary high-water level) and are measured along the slope (ground surface).

- [Western Oregon Stream Riparian Management Areas Matrix](#)
- [Eastern Oregon Stream Riparian Management Areas Matrix](#)
- [Maps of stream typing](#)

Small forestland owners are not subject to the same riparian rules as large, industrial, forestland owners. Buffer widths for SFOs are summarized in the Riparian Management Area Matrix Tables for Western and Eastern Oregon linked above. There are two incentives programs created by the Private Forest Accord legislation that provide incentives for additional protections during forestry operations on small forestland tracts: [conservation](#)

[tax credits](#) for SFOs who use the more protective large forestland riparian rules and commit to continuing to do so for 50 years, and the [Small Forestland Improving Stream Habitat - SFISH](#) fund for restoration and risk reduction related to roads and stream crossings.

Aerial herbicide spray buffers

With passage of Senate Bill 1602 in 2020, Oregon enacted new regulations on helicopter applications of herbicides on forestlands (ORS 527.786 through 527.798). These regulations include new limitations of aerial herbicide application from helicopters (ORS 527.797), including:

- 75ft no-spray buffers adjacent to fish and domestic use streams.
- 50ft no-spray buffers adjacent to non-fish/non-domestic streams with flowing water.
- 300ft no-spray buffers around public and private water intakes (those confirmed to have legal water rights), dwellings, and schools.

There are additional requirements under the FPA chemical rules (OAR 629-620-0400) to both protect required retained vegetation (see the RMA matrix links provided above) and follow the pesticide label instructions promulgated under Federal Insecticide, Fungicide, and Rodenticide Act, which may include setbacks from water. The vegetative buffers required by the stream protection rules are often wider than these minimum widths (e.g. for all fish-bearing streams); therefore, the ORS 527.797 buffers are minimum protections that will be exceeded in many cases.

Western Oregon landslide-prone areas/steep slopes

Due to the Private Forest Accords, the forestry regulations include new rules for harvesting on steep slopes. The rules address three types of steep slopes that have the highest probability of instability:

- Designated Debris Flow Traversal Areas (debris flow corridors)
- Designated Sediment Source Areas (hillslope areas)
- Trigger Sources (areas within Designated Sediment Source Areas)

These rules cover subsets of these landscape features most likely to result in slope failures that deliver sediment and debris to fish-bearing streams. This will contribute to two key goals: decreasing the frequency of timber harvest-related slope failures due to vegetation removal and increasing the habitat value of slope failures that do occur by providing large woody debris to retain gravels, entrain fine sediment, and contribute to channel complexity.

There are three components of the approach, the first and second of which apply to large forestland owners but not small forestland owners. The first is no-harvest buffers along some debris flow-prone small, seasonal non-fish-bearing streams, called Designated Debris Flow Traversal Areas. The second component is no-harvest areas on those failure-prone hillslopes most likely to both fail, generating shallow, rapidly-moving landslides, and then deliver resulting debris flows to fish-bearing streams. These slopes are called Designated Sediment Source Areas. The third component is inclusion of unstable slopes near to fish-bearing streams (Type F or SSBT) in adjacent no-harvest RMAs, which applies to all non-federal forestland owners statewide, up to a maximum distance of 170 feet. Maps of protected seasonal streams and landslide-prone hillslopes can be found in the [ODF Forest Practices Act Streams and Steep Slopes Data Viewer](#).

Other riparian buffers for streams

Riparian buffers for state, federal and agricultural lands are provided below:

Land Use	Stream Size and Type	Riparian Management Area Width	No Harvest	Retain All Understory	Notes/References
State Forestland	All perennial	170 ft	0-25 ft/ light thinning only from 25-100 ft	25 ft	
Federal Forestland	Perennial Intermittent	~320 ft (2SPT) ~160 ft (1SPT) SPT=Site Potential Tree Height. One SPT is the height that a typical conifer attains in 100 years on a given site. It varies from site to site and can be up to 160 feet.	Harvest for restoration only	N/A	Agriculture and forestry activities conducted on federal land must meet the requirements of DEQ water quality standards and are subject to DEQ's jurisdiction. Pursuant to Memoranda of Agreement with the U.S. Forest Service and the Bureau of Land Management, water quality standards are expected to be met through the development and implementation of water quality restoration plans, best management practices, and aquatic conservation strategies. [OAR 340-041-0061(13)] USFS manages their lands according to the Northwest Forest Plan. BLM manages western Oregon projects according to the Resource Management Plans adopted in 2016.
Agriculture	All perennial	Varies by Sub-Basin	Varies by Sub-Basin	Varies by Sub-Basin	There are 39 sub-basins with individual Agriculture Water Quality Rules. Generally, the rules require riparian areas to have "vegetation appropriate to site capability" and to be capable of providing riparian functions such as shade and sediment/nutrient filtration. The riparian zone width used by some entities is 25 feet, but there is no required width established by rule. The rules do not require a set buffer width to provide flexibility to achieve pollution control dependent on the source of potential pollution, the size of the stream, the volume of water expected in the stream, and the climate of the area of concern.

Contact

Oregon protects drinking water through a partnership between DEQ and the OHA. DEQ is responsible for protecting the water quality of all water in Oregon, in particular water that is the source of drinking water. For more information about DEQ's work see the [DEQ's Drinking Water Protection web page](#) or email drinkingwater.protection@deq.oregon.gov.

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