

A guide to completing the Road Condition Assessment



Why is road management important?

Roads are essential infrastructure for a managed forest, but when designed or built improperly or poorly maintained they can negatively impact streams. Improperly drained forest roads can deliver sediment directly to streams, poorly designed or installed water crossings such as culverts can delay or prevent fish movement, and unstable road fills can fail and enter streams.

Proper planning, construction, maintenance, and vacating of forest roads help minimize negative impacts on streams. Properly designed and installed water crossings lower the risk of crossing failure and allow fish to move freely between habitats to support their different life stages and ecological needs (e.g., spawning, rearing young, feeding, and finding refuge).

Oregon has rules guiding forest road construction and maintenance. The [Oregon Forest Practice Administrative Rules](#) (Rules) apply to all private roads used to haul timber or manage forestlands. Division 625 of the Rules have road design standards, maintenance obligations, and requires small forestland owners (SFOs) to complete a Road Condition Assessment (RCA). This guide will help you complete an RCA using ODF's standardized RCA form that can be downloaded from the [RCA webpage](#).



Fill failures and diversion of water crossings can cause fluvial hillslope erosion.

What is a Road Condition Assessment?

The purpose of an RCA is to ensure roads used for harvest and owned by SFOs comply with the standards of the Rules. Information collected when completing an RCA enables SFOs to document compliant roads and water crossings and helps identify issues that can be fixed with proper maintenance or improved with state funds through the [Small Forestland Investment in Stream Habitat Program \(SFISH\)](#).



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Who should use the assessment?

The RCA has been designed for SFOs. An SFO is defined in Division 600 of the Rules as a landowner who:

- Owns less than 5,000 acres of forestland in Oregon.
- Has harvested no more than an average volume of 2 million board feet of timber when averaged over the past 3 years.
- Does not expect to harvest more than an average yearly volume of 2 million board feet of timber for the next 10 years.

If you've harvested or plan to harvest more than an average yearly volume of 2 million board feet, contact your [local ODF office](#) to see if you may be eligible for an emergency exception.



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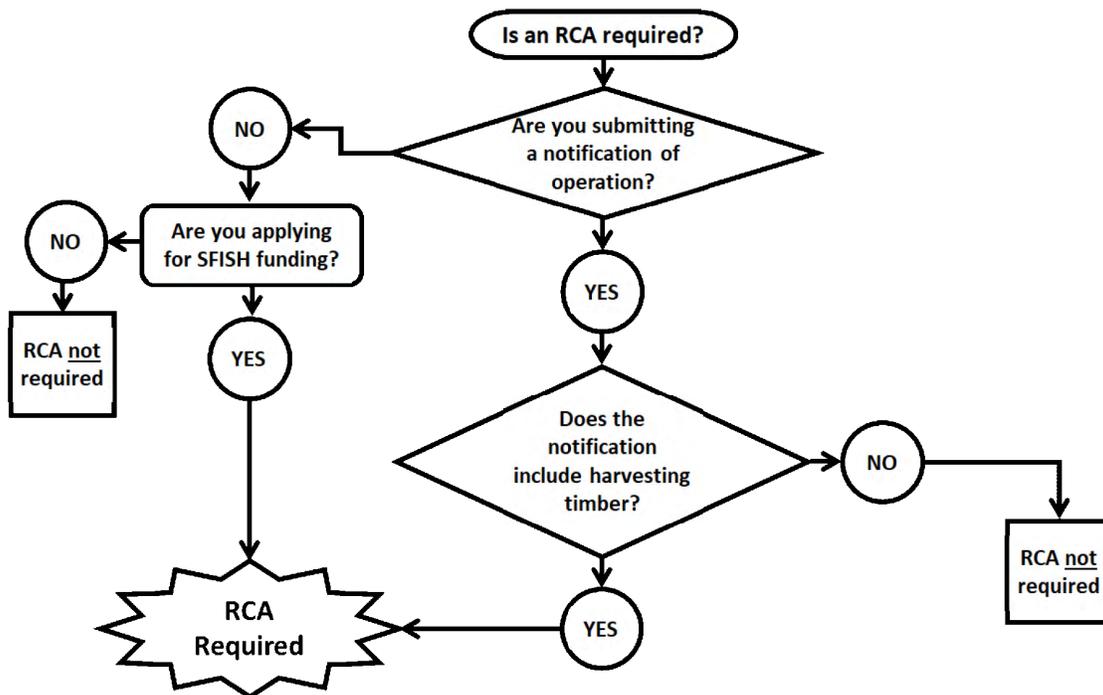


When should I use the assessment?

When an SFO submits a notification that includes the harvest of timber using the department's reporting and notification system (FERNs), an RCA must be completed. Examples of operations that require an RCA are overstory removal, clearcutting, commercial thinning, road right-of-way harvest, and salvage logging.

An RCA is also required if seeking road improvement funding through SFISH.

Notifications for activities that do not include the harvest of timber do not require completion of an RCA, but SFOs are encouraged to complete an RCA at any time. SFOs wanting to complete an RCA prior to when one is required should contact a local ODF office or visit the [RCA webpage](#).



What roads need to be included in the assessment?

Four types of roads are defined in the forest practice rules and apply to an RCA: active, inactive, abandoned, and vacated roads (Table 1). All these roads need to be considered when completing an RCA.



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Table 1. Description and example of road types.

Road Type	Description	Example
Active	Currently used and maintained for the purpose of removing commercial forest products.	Mainline, connectors, and spurs on a route during active harvest and log hauling.
Inactive	Currently used for forest management purposes but not being used for timber harvest and log hauling.	Roads used for planting, growing, and tending trees, forest products, and other vegetation. Roads used for identifying and marking boundaries, fire suppression, and prescribed burning.
Abandoned	No longer used or maintained and constructed before 1972, excluding skid trails.	Roads that have not been maintained or used. These roads can be difficult to detect due to their age, size, and drivability. These roads may resemble trails and often have vegetation growing in the road prism.
Vacated	No longer in use for timber harvest or forest management. Vacated roads must be blocked to prohibit vehicle access.	The road was effectively blocked and notified to the State Forester as vacated in compliance with OAR 629-625-0650. <i>Note: if a road has not been vacated according to this rule, it could potentially be defined as an abandoned road.</i>

Examples of inactive and active roads



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Examples of abandoned roads



Examples of vacated roads



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Cross-section of a typical road

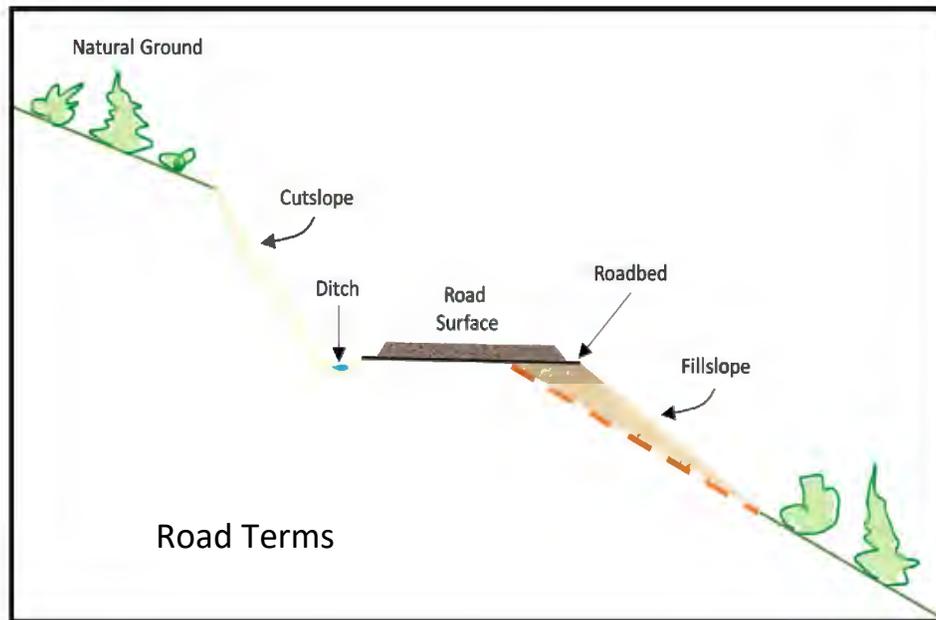
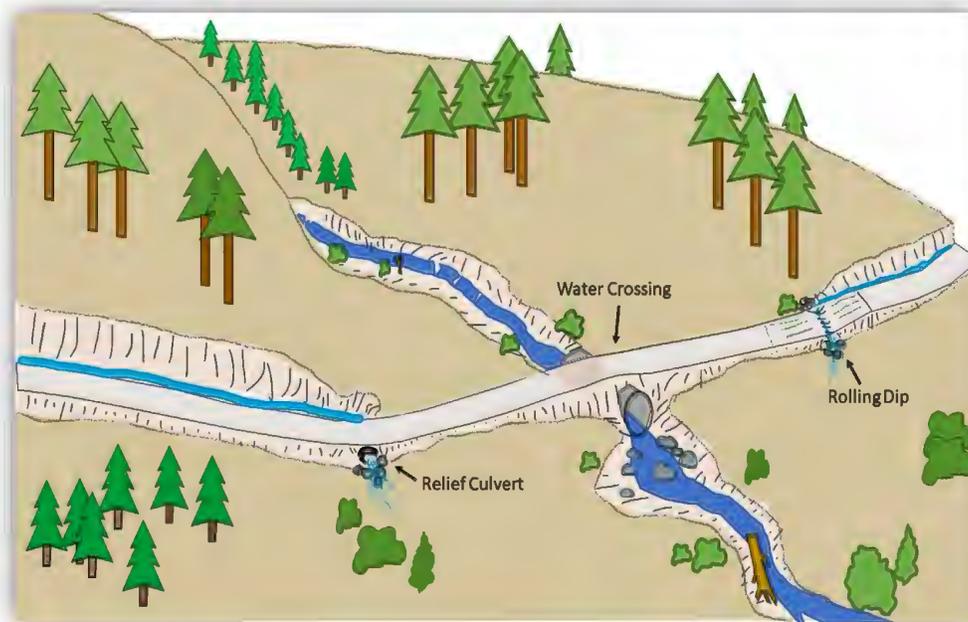


Illustration of road drainage system and water crossing



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What area of my forestland should be included in the assessment?

Roads located within the parcel where the harvest activity will take place or the SFISH funded project may occur are required to be included in an RCA.

Landowners are encouraged to include roads from all their owned parcels when completing an RCA.

What is a parcel?

The Rules define a parcel as a contiguous single ownership recorded at the register of deeds within the county or counties where the property is located, including any parcel(s) touching along a boundary, but a railroad, road, stream, or utility-right-of-way may intersect the parcel.



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What do I need to take with me to complete an assessment?

Suggested equipment includes the following: GPS unit or smartphone, vehicle with a working odometer, pencils, RCA form or a notebook, and this guide.



What information about my roads do I need to collect?

An RCA must identify the presence or absence of road conditions that contribute to active or potential delivery of sediment to waters of the state, water crossing locations and status of compliance with the forest practice rules, potential fish passage barriers, abandoned roads, and roads with unstable fill that could fail and enter a fish stream.

The next several sections of this document will guide you through the ODF standardized RCA form, provide pictures of common indicators of road drainage, road instability, water crossing, and fish passage problems. References and instructions for additional resources that are available to help you complete an RCA will be covered along with how to submit your RCA.

You can download the RCA form from the [RCA webpage](#).



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SMALL FORESTLAND OWNER ROAD CONDITION ASSESSMENT

Contact Information

If completing the RCA and you are the landowner, provide your contact information. If a representative of the landowner, provide the landowner's contact information and your contact information.

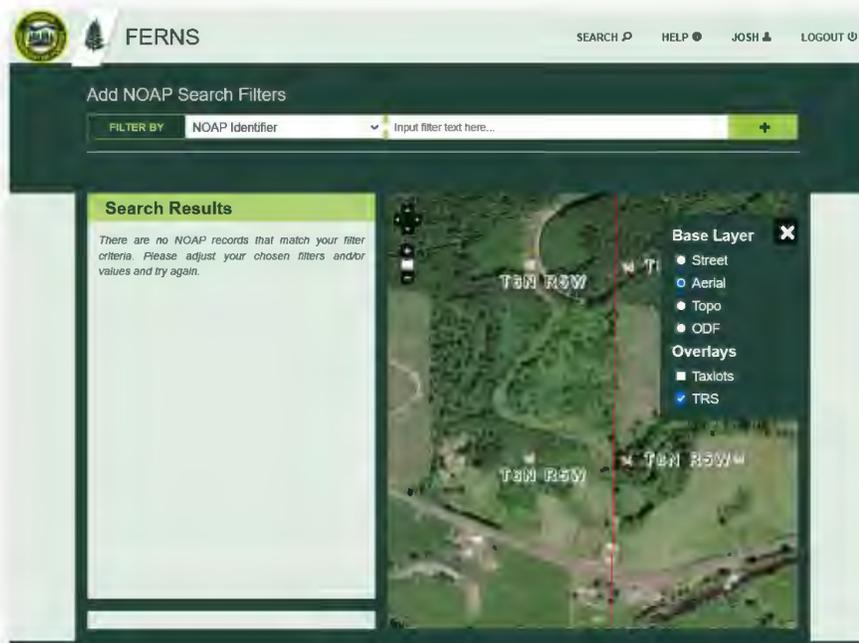
Date Completed

Enter the month, day, and year the RCA was completed. If over multiple days, enter the last day.

Location of RCA

Provide a legal description, GPS location, taxlot ID(s), or address for the parcel(s) where the roads being assessed are located. An address is most appropriate if you own a small parcel and the road being assessed is also your driveway.

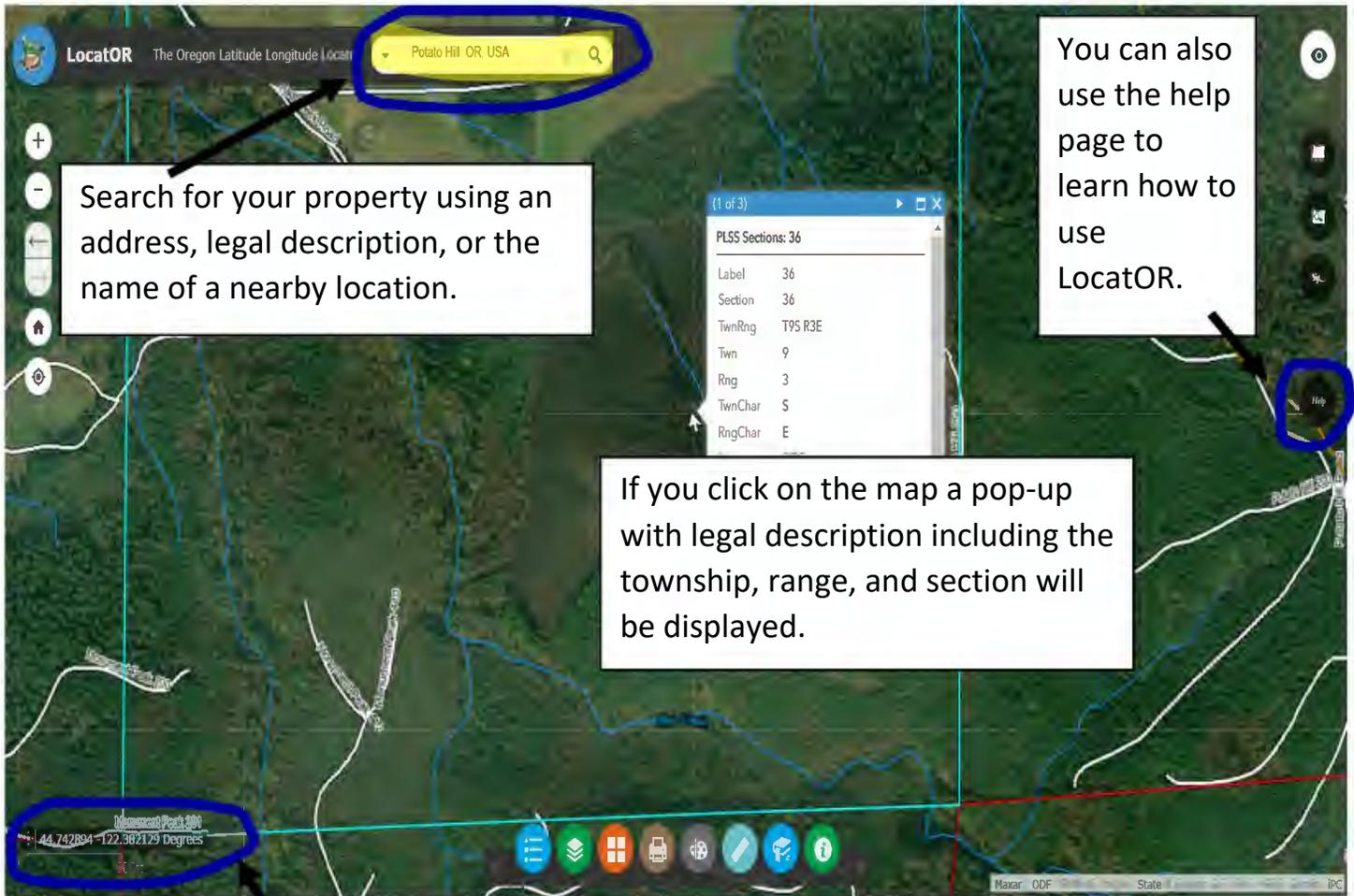
If providing a legal description for the parcel(s), include at minimum, township, range, and section. This can be determined using the [FERNs](#) or [LocatOR](#).



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If providing a GPS location, a latitude and longitude in [decimal degrees](#) is preferred. Location in decimal degrees can be obtained in the field using a GPS unit or smartphone. A GPS location can also be determined at home using a variety of online map viewing platforms including [LocatOR](#). Be sure to describe the general spot in the parcel where the latitude and longitude are recorded (e.g., the center of the parcel, northwest corner, etc.).



Search for your property using an address, legal description, or the name of a nearby location.

You can also use the help page to learn how to use LocatOR.

If you click on the map a pop-up with legal description including the township, range, and section will be displayed.

The latitude and longitude follow the path of the mouse. Click on the Coordinate button to enable clicking the map to get coordinates.



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This RCA Applies To

Indicate if only the roads and water crossings within the parcel where the harvest is being notified or SFISH project is located are being assessed, if all owned parcels are being assessed, or if no roads, water crossings, or abandoned roads are present in the parcel being assessed.

If no roads, water crossings, and abandoned roads are present you have completed the RCA.

Condition of Roads

An RCA must identify road conditions that contribute to active or potential delivery of sediment to waters of the state. Check any of the common indicators of drainage or stability problems if present anywhere on the road network. If no problems exist, check the “Forest roads were assessed, and none of the above conditions exist” box on the form.

Common road problems

Water from road or ditch runs directly into a stream.



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There is flowing water or ponding water on the road surface.



There are signs of erosion or sediment present on the road surface.



The road surface has potholes, ruts, or washboarding.



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There is erosion, scouring, or downcutting of a road ditch.



The road has sinkholes. (Not a pothole, but a hole that can't be driven over.)



Dirt from the uphill side of the road is moving towards or falling into the road ditch or has signs of erosion.



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Dirt from the downhill side of the road is moving towards or falling into a stream or has signs of erosion.



There are cracks on the outside edge of the road, road fill is on top of vegetation or debris, or there are nearby landslides.



How do I determine the total miles of roads assessed?

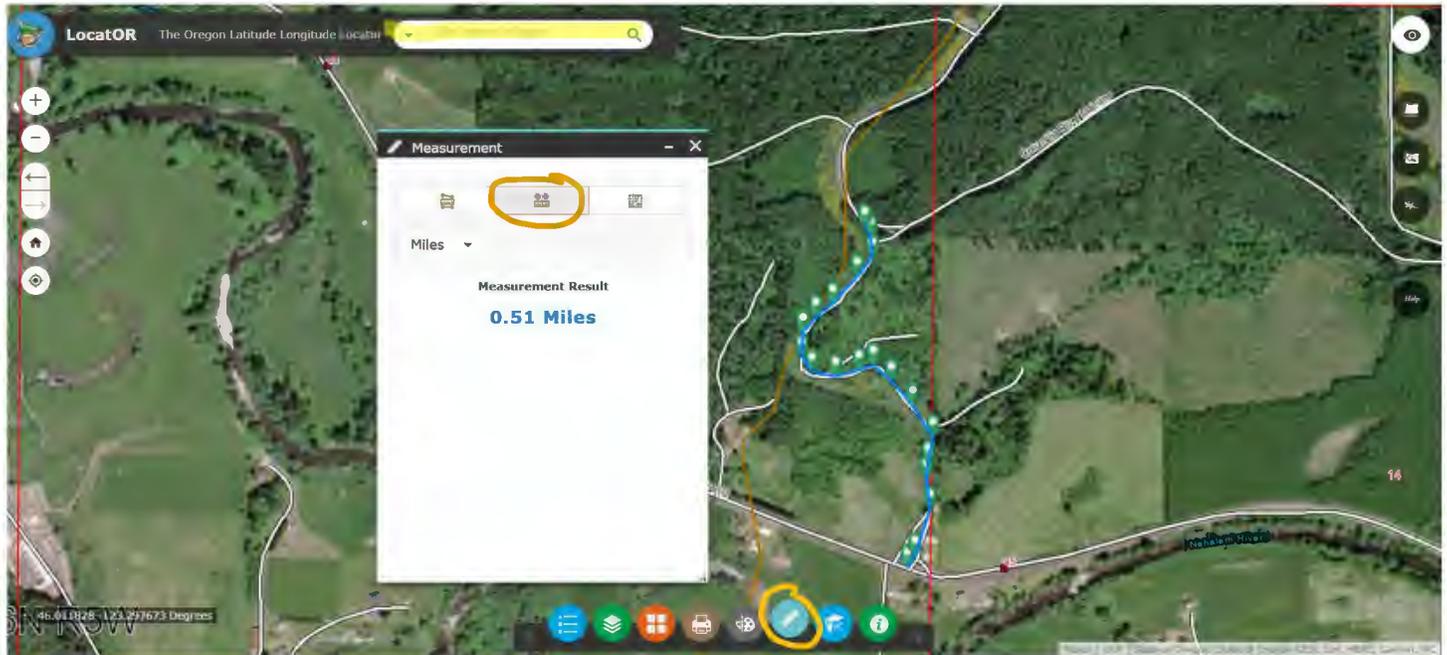
Get the miles of forest roads assessed by driving them with a vehicle that has a working odometer, walking them with a GPS or smartphone app that can track your path, estimate the total, or use the measuring tool in [LocatOR](#).



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See page 10 of this document for instructions on how to locate your property with [LocatOR](#). Once you've located your property, use the measuring tool. Be sure to select the Distance feature, then trace your road using the cursor and clicking the mouse. To finish the trace, double click the mouse.



Location and Status of Water Crossings

An RCA must include the location and status of water crossings. Indicate if you have any water crossings. If you have water crossings, complete the table on page 2 of the RCA form, including the type, location, year installed, and status of each water crossing.



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Water Crossing Type

Culverts



Bridges



Fords



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Location of Water Crossing

The location of the water crossing in [decimal degrees](#) can be obtained in the field using a GPS unit or smartphone. Location can also be determined at home using a variety of online map viewing platforms, including ODF's [LocatOR](#). See page 10 of this guide for instructions on using [LocatOR](#) to get GPS coordinates.

Year Installed

If known, enter the year the water crossing was installed.

Water Crossing Status

For each water crossing, indicate if any of the listed conditions exist. If no problems exist, be sure to indicate that the water crossing status is "Good".

Common water crossing problems

The culvert is damaged, has separated joints, holes in the bottom, or has a rusty bottom.



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Water flows under, over, or around the culvert.



There is ponding of water upstream of the culvert.



The culvert is clogged or keeps clogging with dirt or debris.



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The stream has undercut the culvert at the downstream end.



There are whorls or eddies at the culvert entrance.



Dirt from the fill over the culvert is falling into the stream.



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There is sloughing, gullies, holes, or cracks in fill over the culvert.



There are culverts associated with the bridge or ford.



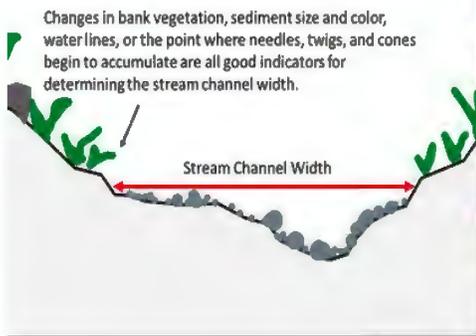
Debris hangs up on the bridge or ford.



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The width of the culvert or distance between the bridge abutments is narrower than the stream channel width.



Streambed material does not cover the bottom of the culvert throughout its entire length on the inside.



The culvert outlet is perched above the water surface level at any level of flow.



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There is a change in water surface level inside the culvert or created by the ford.



The water depth across the ford or in the culvert is shallower than in the adjacent stream channel.



Fish have difficulty swimming through or over the water crossing because of fast moving water.



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Abandoned Roads

If you are aware of any abandoned roads being present in the parcel(s), this needs to be reported in the RCA. Abandoned roads are old roads on your property that are not being maintained or used and were not vacated properly. These roads can be difficult to detect due to their age, size, and drivability. These roads may resemble trails and often have vegetation growing in the road prism.

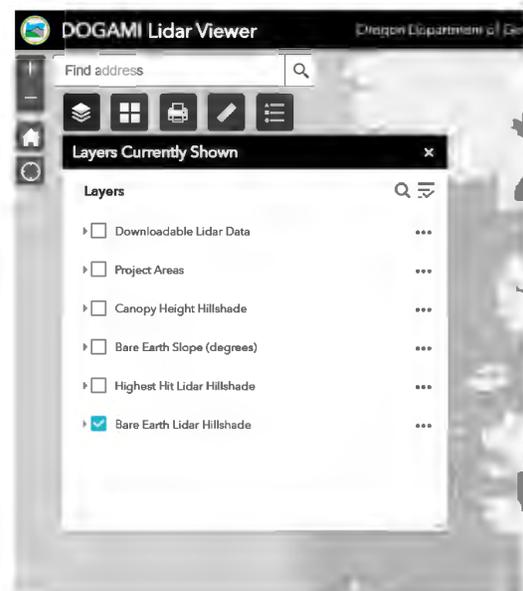
The lack of inspection and maintenance of drainage structures and unstable road fills along abandoned roads can result in soil movement and sediment delivery to stream channels. Unmaintained and undersized culverts are of particular concern because they can be a barrier to fish passage, pose an increased risk of failure, and may have a high diversion potential.

How do I determine the miles of abandoned roads present?

You might be able to get the miles of abandoned roads present on your forestland by driving them with an all-terrain vehicle that has a working odometer. You can also walk them and measure distance with a GPS or smartphone app.

If abandoned roads cannot be driven or walked, you can estimate the miles present or use the [Oregon Department of Geology and Mineral Industries Lidar Viewer](#) and associated measuring tool if they have Lidar data that includes your forestland.

Navigate to the Lidar Viewer page by using an internet search engine (i.e., Google, Bing, Yahoo, etc.) or the embedded link above. Once on the Lidar Viewer page, unselect the default Downloadable Lidar Data layer and select the Bare Earth Lidar Hillshade layer.



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Search for your property using the address or a nearby address. Place names and coordinates will not work.



Or you can turn off the Bare Earth Lidar Hillshade layer, switch the Basemap to Imagery with Labels, and pan to your property.



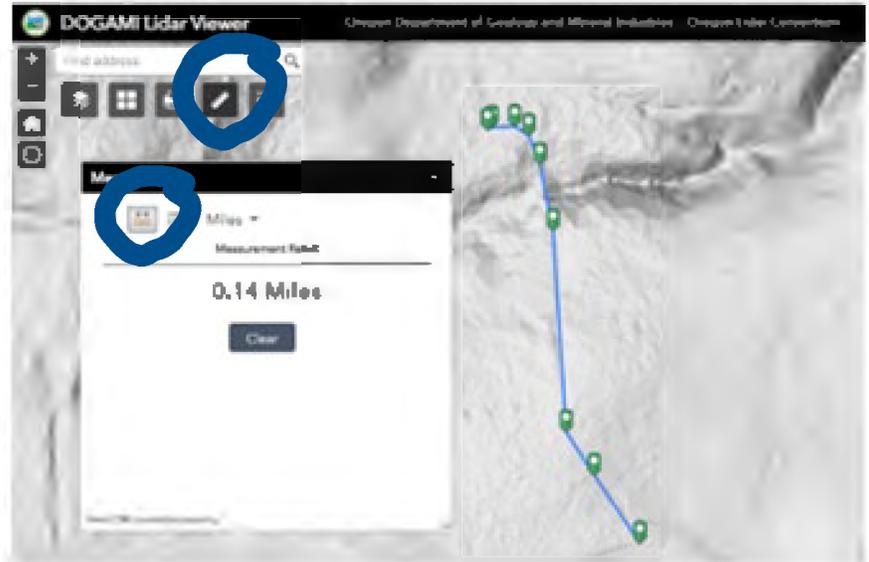
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Once you've located your property, use the Bare Earth Lidar Hillshade layer and measuring tool to estimate the miles of abandoned roads.

Be sure to select the Distance feature, then trace your road using the cursor and clicking the mouse. To finish the trace, double click the mouse.

[LocatOR](#) can also be used, however the Lidar resolution quality can be poor.



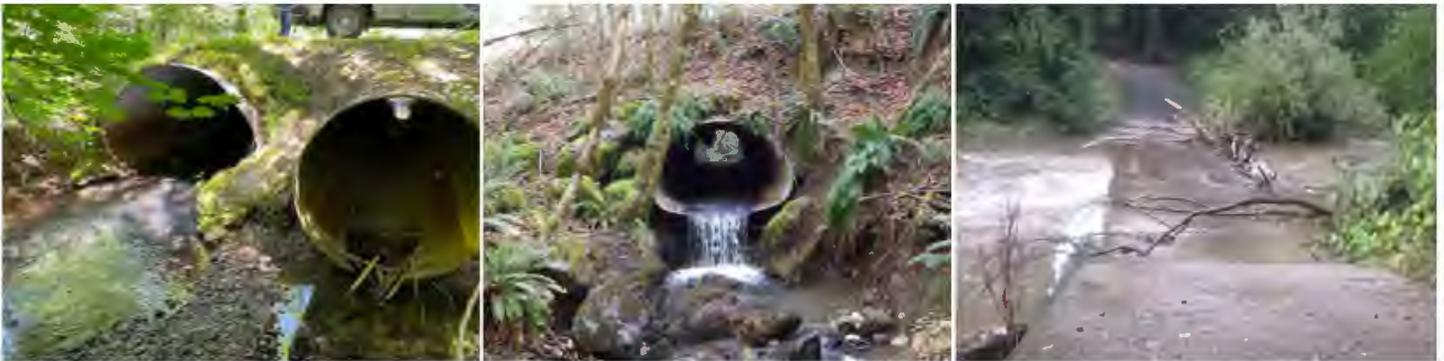
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Small Forestland Investment in Stream Habitat Program

The SFISH Program provides grants to qualified small forestland owners for road repair projects that result in an environmental benefit to fish. Projects that may be eligible for funding include replacement of culverts or fords in fish streams, repair of abandoned roads, and remediation of roads with a perched fill. Contact your local ODF office if you have a project you think may qualify for funding.

What might an SFISH eligible culvert or ford look like?



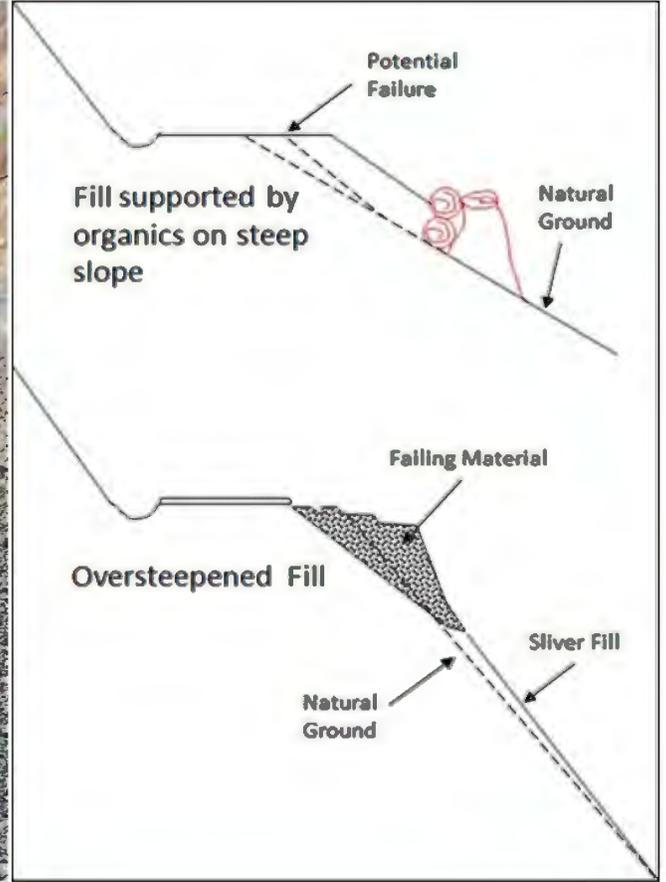
What might an SFISH eligible abandoned road look like?



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What might an SFISH eligible perched road fill look like?



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How do I submit my completed assessment?

When submitting the completed RCA with a notification, the paper form needs to be converted to a PDF document and uploaded with the notification within [FERNS](#).

FERNS is located online, and instructions for uploading documents can be found in the FERNS [user manual](#).



Instructions for submitting an RCA when applying for [SFISH](#) can be found online. To submit an RCA prior to conducting a forest operation contact your [local ODF office](#) or visit the [RCA webpage](#).

Important Resources to Help Complete an RCA

Oregon Department of Forestry Field Offices:

<https://www.oregon.gov/ODF/Working/Pages/FindAForester.aspx>

Oregon Department Forestry Road Condition Assessment Webpage:

<https://www.oregon.gov/odf/working/pages/road-condition-assessments.aspx>

Oregon Department of Forestry Publications Webpage:

<https://www.oregon.gov/odf/Pages/publications.aspx>

Oregon Department of Forestry FPA Streams and Steep Slopes:

<https://geo.maps.arcgis.com/apps/webappviewer/index.html?id=dde877f74cf84fdb53bd4b57204c2fe>

Oregon Department of Forestry Small Forestland Investment in Stream Habitat Program Webpage:

<https://www.oregon.gov/odf/pages/sfish-program.aspx>

