

## Forest Practices Water Typing

Water typing is a Washington State Department of Natural Resources (DNR) classification system of streams and other water bodies that identifies whether or not streams/water bodies are used by fish, and whether or not streams experience perennial or seasonal flow. The Forest Practices program uses water types to establish the amount and pattern of riparian buffer protection required during forest practices activities.

### WATER TYPE MAPS

#### Who should I contact if I have questions about water typing?

Visit or contact your local Department of Natural Resources (DNR) region office for assistance with questions about the DNR Water Type Maps. The following table provides contact information for the six DNR region offices. It also includes contact for the Small Forest Landowner Office and Forest Practices helpdesk that provide statewide support.

DNR Region	Location	Phone	Email
Northeast	Colville	(509) 684-7474	<a href="mailto:fp_ne@dnr.wa.gov">fp_ne@dnr.wa.gov</a>
Northwest	Sedro Woolley	(360) 856-3500	<a href="mailto:northwest.region@dnr.wa.gov">northwest.region@dnr.wa.gov</a>
Olympic	Forks	(360) 374-2800	<a href="mailto:fp_oly@dnr.wa.gov">fp_oly@dnr.wa.gov</a>
Pacific Cascade	Castle Rock	(360) 577-2025	<a href="mailto:pacific-cascade.region@dnr.wa.gov">pacific-cascade.region@dnr.wa.gov</a>
Southeast	Ellensburg	(509) 925-8510	<a href="mailto:southeast.region@dnr.wa.gov">southeast.region@dnr.wa.gov</a>
South Puget Sound	Enumclaw	(360) 825-1631	<a href="mailto:southpuget.forestpractices@dnr.wa.gov">southpuget.forestpractices@dnr.wa.gov</a>
Small Forest Landowner Support	Statewide	(360) 902-1415 (360) 742-6825 (360) 890-6295	<a href="mailto:sflo@dnr.wa.gov">sflo@dnr.wa.gov</a>
Forest Practices Help Desk (for WTMF on non-forested lands)	Statewide	(360) 902-1420 ATTN: Water type modification	<a href="mailto:kevin.smith@dnr.wa.gov">kevin.smith@dnr.wa.gov</a>

#### Who is the DNR Data Steward for the data used to make Water Type Maps?

The Department of Natural Resources (DNR) is the Geographic Information System (GIS) data steward of the Water Type Layer. The data that feeds the GIS Water Type Layer comes from DNR staff, local governments (cities, towns, and counties), and large and small landowners. DNR uses the data from these sources to maintain current information in the database it uses to generate Water Type Maps.

#### What information is used to determine the water types identified on the DNR Water Type Maps?

The Department of Natural Resources (DNR) Water Type Map displays are based on various criteria used to determine the water types, including stream bankfull width and stream slope gradient, drainage basin size, and fish-use versus non-fish-use. Natural permanent barriers are also used to determine the water type when fish absence upstream is verified.

#### Which system – WAC [222-16-030](#) (Water Typing System) or [222-16-031](#) (Interim Water Typing System) – should I use to type the water on my property?

Use and follow WAC 222-16-031 to make on-site decisions related to water types. The Water Type Maps designate Type 1 through 5 waters as Type S, F, Np, or Ns in accordance with the Water Type Conversion Table in the Forest Practices Rules.

#### Water Type Conversion Table

Source: WAC 222-16-031

Permanent Water Typing	Interim Water Typing
Type "S"	Type 1 Water
Type "F"	Type 2 and 3 Water
Type "Np"	Type 4 Water
Type "Ns"	Type 5 Water

### **Should I depend on the water types on the DNR Water Type Maps?**

Water types displayed on the Department of Natural Resources (DNR) Water Type Maps should be field verified and typed using the Forest Practices Rule identified physical criteria, as defined in [WAC 222-16-031](#) or by an approved Water Type Modification Form, see below, based on a protocol survey as defined in [Board Manual Chapter 13](#).

### **How do DNR Water Type Maps affect the operations of local governments?**

The Department of Natural Resources (DNR) approves water types on lands meeting the Forest Practices Rule definition of “forest land” found in [WAC 222-16-010](#). Approvals for water type designations on non-forest lands are the responsibility of the local government because DNR does not have regulatory jurisdiction on properties converted to non-forestry use. Local governments have access to DNR Water Type Maps and may choose to use them. The DNR Water Type Maps should be considered as a starting point for coordination between landowners and their local governments. Landowners are strongly encouraged to contact local governments with questions about water typing.

### **What can be done to correct inaccuracies found on DNR Water Type Maps?**

When a water type depicted on the Department of Natural Resources (DNR) Water Type Maps needs to be updated, use the [Water Type Modification Form](#) and process.

### **Will DNR be able to use the information from my forest practices application to change the DNR Water Typing Map if I don’t also provide an approved water type modification form with my application?**

No. The Department of Natural Resources (DNR) only changes its Water Type Maps after receipt of an approved Water Type Modification Form (WTMF). You may submit your WTMF in the same packet as your Forest Practices Application/Notification (FPA/N) documents so DNR can concurrently review and make its decisions about both.

### **I have fish information. How do I get it included on the DNR Water Typing Maps?**

Submit the information along with a Water Type Modification Form (WTMF) to your local Department of Natural Resources (DNR) region office (see also chart above for region office contact information). Consultation with your local Washington Department of Fish and Wildlife (WDFW) or tribal biologist is encouraged to verify fish species data.

### **I have conducted protocol surveys on my streams, how do I get the water types changed?**

Submit the information along with a Water Type Modification Form (WTMF) to your local Department of Natural Resources (DNR) region office (see also chart above for region office contact information). If you are submitting a Non-Forestland Water Type Modification Form (Non-F WTMF) update, also refer to the information in the “General” section below.

### **Can spatial data be submitted digitally/electronically to update the DNR Water Type Maps?**

Yes, spatial data may be accepted in ArcGIS shapefile or file geodatabase (FGDB) formats. Contact your local Department of Natural Resources (DNR) region office, or for non-forestland water type modifications the Forest Practices Help Desk, to learn about the specific requirements for digital and electronic data submissions (see also chart above for region office and Forest Practices Help Desk contact information).

## **PROCESS**

### **What steps should I use to determine the water type of a stream in the field?**

For each stream in your proposed activity area, identify the average stream channel gradient and average bankfull width (see [Board Manual Section 2](#)), then read the descriptions of each water type ([WAC 222-16-031](#)) and consult [Board Manual Section 13](#) to determine fish use. If you are having trouble identifying the average bankfull width of a stream, contact your local Forest Practices Forester for assistance. The Water Type Classification

Worksheet available in the Forest Practices Application/Notification (FPA/N) may also be used to provide water type information based on default Forest Practices Rule identified physical criteria.

### **When is a water type modification form (WTMF) required?**

Submission of a complete Water Type Modification Form (WTMF) is the only process to update the Department of Natural Resources (DNR) Water Type Maps. A WTMF is required when you want to:

- Add a water body (e.g. stream, pond, lake) to the DNR Water Type Maps;
- Update a field verified water body location on the DNR Water Type Maps;
- Delete a water body from the DNR Water Type Maps, including deleting a water shown on the Water Type Map that is not found during field verification; or
- Change the water type designation of a water body on the DNR Water Type Maps (example: change a “non-fish” (Type Np/Ns) stream designation to a “fish” (Type F) stream designation).

**Note:** Although the WTMF is not a required component of a Forest Practices Application/Notification (FPA/N) it may be submitted in conjunction with an FPA/N so DNR may undertake its reviews and decisions about both concurrently.

### **Who reviews my water typing form?**

A Water Type Review Team (WTR) will evaluate your Water Type Modification Form (WTMF) submission. The local Forest Practices Forester leads the WTR Team, which is made up of representatives from DNR, the Washington Department of Fish and Wildlife (WDFW), the Washington Department of Ecology (ECY), and affected tribes. The WTR Team reviews your WTMF based on the submitted documentation as well as site visits to make field verifications when appropriate. For non-forestland areas, the Department of Natural Resources (DNR) recommends contacting your local government (example- county or city planning and development), WDFW, or ECY for assistance.

### **Who makes the final decision on the water type fish/non-fish (F/N) break ?**

A fish/no-fish (F/N) break is a dividing point between “fish water” and “non-fish water.” The Department of Natural Resources (DNR) makes the final decision on the location of the F/N break for lands meeting the definition of “forest land” in the Forest Practices Rules ([WAC 222-16-010](#)). The local Forest Practices Forester makes the decision based on the submitted Water Type Modification Form (WTMF) documentation, survey data, and when appropriate, information provide by a Water Type Review Team, and/or field verification visits.

### **How can I have a stream type changed from a fish-bearing stream to a non-fish-bearing stream or vice-versa?**

Streams that have Forest Practices Rule identified Type F physical characteristics are presumed to have fish unless a protocol survey or a Water Type Review (WTR) Team evaluation determines otherwise. [Board Manual Section 13](#) provides survey methods and information about these reviews. Follow the [WTMF process](#) to submit your request.

### **How long should I expect to wait for DNR to review my water type modification request and make a decision about it?**

There are no regulatory timelines associated with a Water Type Modification Form (WTMF) review. As a guideline, the Department of Natural Resources (DNR) regions generally attempt to complete water type evaluations and reviews within 30-days of submission of the WTMF. When a WTMF is directly linked to a forest practices application/notification (FPA/N), the two processes typically run concurrently and the review period is governed by the FPA/N’s statutory review requirements (note that statutory FPA/N review periods vary by application type).. FPA/N’s may be disapproved if the WTMF process is unresolved by the prescribed statutory decision date or if there is non-concurrence of the WTMF by one or more Water Type Review (WTR) Team reviewers.

**What happens if the stream evaluated in my WTMF flows across the administrative boundary between two DNR region offices? Do I have to submit a WTMF to each region office for the portion in their area?**

If the stream you are documenting information about in a Water Type Modification Form (WTMF) crosses a Department of Natural Resources (DNR) region administrative boundary, contact your local Forest Practices Forester and alert them to the situation. The Forest Practices Forester will coordinate with their counterpart in the adjacent DNR region and together they will determine which region will lead the processing of your WTMF and inform you of their determination.

**What is a large project for water type modifications?**

Large projects are batches or groups of Water Type Modification Forms (WTMFs). [Board Manual Section 13](#) provides protocols for verifying fish use, which can be completed at any scale (i.e., by geographical area or watershed). After consultation with the Water Type Review (WTR) Team, a landowner may survey all or part of their property.

**We work in several DNR regions and the process for handling our water typing reviews seems to be different in each region. How do we get consistency?**

Keeping in mind that processing differences between the Department of Natural Resources (DNR) regions may be in place for valid reasons, your best source for gaining understanding of the reasons for the differences is to communicate with your local Forest Practices Foresters in the regions involved and work with them to address the matter.

**Do I have to submit a Water Type Modification Form with my forest practices application?**

No, however, you do need to show the actual field verified water types on your forest practices application Activity Map and provide documentation in the application specifying how water types were determined in the field. DNR strongly encourages use of the Water Type Classification Worksheet found in the [FPA/N instructions](#) and as a separate [form](#) under “*Water Typing*” on the Forms and Instructions [page \(https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and\)](https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and).

**Is there an appeal process if I disagree with the decision for my requested water type modification?**

No, there is no appeal process for water typing modification decisions. Disagreements with a stand-alone water typing decision should be addressed to the Forest Practices Forester who will consult as needed with the Water Type Review (WTR) Team to achieve informal resolution. For water type modification requests directly linked to a forest practices application/notification (FPA/N), the appeal procedures applicable to the FPA/N may be used to dispute the water typing decision. FPA/N appeal instructions vary between application types so you should refer to the [FPA/N instructions](#) for the application you are using for more information or contact your local Department of Natural Resources (DNR) region office for assistance.

**When measuring bankfull width (BFW) to determine whether a stream meets fish Forest Practices Rule identified physical criteria, what should I do if the stream I’m assessing goes subsurface for half the length of the stream before resurfacing? Does the measurement become zero feet for those measurement points where the stream is subsurface?**

Do not record bankfull width (BFW) as zero (0). Instead, document the subsurface length and then continue your protocol survey above the point where the stream goes subsurface, as long as there is a defined channel connecting the two points.

**I need clarification about the ¼-mile survey length from last known fish. Are tributaries considered in the ¼-mile length as a system?**

No, the ¼-mile distance applies to the stream segment you are surveying. Tributaries are considered a new stream segment.

**I need help understanding the difference between “¼-mile distance above last fish” and a fish/non-fish (F/N) break.**

The ¼-mile parameter determination is found in the [Board Manual Section 13](#). The “¼ mile of stream length above the point of last known fish use” is the minimum survey effort required for a protocol survey. The fish/non-fish (F/N) break should be set at a point upstream of the last known fish use location that represents the upward extent of the fish use area.

**I need help with how to record the legal description. Should I list the section where the break is located or all sections where the survey is conducted?**

List all sections in which the survey is conducted.

**How important is size with respect to quality of a pool? A quality pool that is 3-feet wide by 1-foot deep may be needed for adult fish but not necessarily for younger aged fish.**

Your survey should consider smaller size pools because the more important factor is fish presence, not pool size.

**What dimensions are needed for a pool to be considered a “high quality pool?”**

Per [Board Manual Section 13](#), page M13-4, a high quality pool is “at least 3 square feet in surface area and 1-foot residual pool depth or larger.”

**What are the expectations for typing channels that are dry on the day of the survey, but meet default physical criteria and are connected to a Type F Water?**

If at some point in the year fish are able to access the stream using physical criteria, you should consider the segment to be considered a “fish” stream. In some regions, there could be the possibility of doing a survey during the wet season. The Water Type Review Team would be consulted in this type of situation.

**How should I complete my stream typing if the stream extends beyond the point where I have property owner permission to access? For example, if I don't have a ¼-mile of access with property owner permission to access the stream above a survey?**

Conducting a water typing stream survey does not authorize trespass onto other's property, nor are you required to request access to any properties you do not own or control for purposes of conducting a water typing survey. If a segment of stream is not accessible due to access constraints, the inaccessible portions of the stream may need to be typed using Forest Practices Rule identified physical criteria. Another option would be to request the local Forest Practices Forester convene a Water Type Review Team to determine if the survey effort on the accessible portion of the stream is sufficient or if an alternative survey method would be acceptable.

**Does the [Annual Fish Survey Season Water Level and Streamflow Forecast](#) include details about the methods for determining flows? For example, snow pack systems versus rain dominated systems.**

Yes, the document includes a link that covers the methods used.

**I want to electroshock in an area covered by the Bull Trout Overlay, who do I contact?**

Contact the [Washington Department of Fish and Wildlife](#) (WDFW) and the [United States Fish and Wildlife Service](#) (USFWS) when planning to electroshock in Bull Trout Overlay locations.

**Consultation requirements for Scientific Collection Permits (SCP) are confusing. Please help me know who to consult with and when.**

Landowners who wish to survey for fish in streams larger than 5 feet bankfull width are required to consult with Washington Department of Fish and Wildlife (WDFW) area habitat biologists (as per requirements of WDFW's Scientific Collection Permit) and affected tribes prior to the survey effort ([Board Manual](#), page M13-2).

**I need help with temporary barriers. What time scale does DNR use when assessing how "temporary" a barrier is for consideration as a permanent barrier?**

Examples of temporary barriers may include, but are not limited to hardwood log segments, sediment wedges caused by debris flows, and other deformable features. The time period a barrier is considered to be temporary is variable so must be evaluated and a site-specific determination based on the stream dynamics must be made by the Forest Practices Forester in coordination with the Water Type Review Team.

**Should I survey the last part of a stream that is less than 16 percent gradient if I believe fish would not use it due to a muddy substrate?**

Determination of fish use in a stream less than 16 percent gradient with a muddy substrate requires a site-specific evaluation by the Forest Practices Forester in conjunction with an interdisciplinary Water Type Review Team. The Team's determination would be based on species use in the area and professional judgment.

**At what water temperature would one expect biological activity to be high enough to respond to electro-fishing?**

The Department of Natural Resources (DNR) recommends consulting with the Department of Fish and Wildlife (WDFW) regarding appropriate water temperature ranges for electrofishing because the answer varies by species.

## **PROTOCOL SURVEY**

**Is it true that I have to conduct a protocol survey to change a water type on the DNR Water Type Map?**

A protocol survey is used to identify the break point between a Type F (fish-bearing) water and a Type N (non-fish-bearing) water. The WTMF is used to propose a change of a water type on the Department of Natural Resources (DNR) Water Type Maps. If the purpose of your Water Type Modification Form (WTMF) is to establish the break point between fish and non-fish water a protocol survey may be needed; if that is not the purpose, a protocol survey is not required. Default physical characteristics can also be used to determine the point break between Type F and Type N waters.

**May I do a single protocol survey or must I do multiple protocol surveys during different survey seasons on the same stream?**

In most cases, a single, complete protocol survey is all that is required. There are situations where multiple surveys may be recommended to adequately assess fish use (e.g., overwintering habitat or removal of man-made barriers) Consultation with the DNR Forest Practices Forester, WDFW, and affected tribes prior to the survey season is strongly encouraged to achieve successful outcomes. See [Board Manual Section 13](#) for protocol survey guidance.

**Can an interdisciplinary team upgrade or downgrade a water type using an alternate protocol?**

Yes, an interdisciplinary team may upgrade or downgrade a water type using an alternate protocol. The interdisciplinary team would include, at a minimum, the Department of Natural Resources (DNR) Forest Practices Forester, the landowner, and the interdisciplinary Water Type Review Team members. Once the Water Type Review Team establishes an alternate protocol, the landowner may implement it. Survey specifics and decisions must be well documented in an interdisciplinary team report; DNR recommends providing the Water Type Review Team with as much of the following information as is available:

- Known fish distribution in adjacent stream reaches (e.g., main stem tributaries),
- Known or suspected natural and/or man-made barriers downstream,
- Historical disturbance,
- Maps,
- Pictures and video,
- Channel features (e.g., pools, bankfull width, and depth.).

**Does the accepted window to conduct protocol surveys run from March 1 to July 15 in any given year?**

Yes, per [Board Manual Section 13](#) the window in which to conduct protocol surveys runs from March 1 to July 15 annually. Due to complexities in anticipating when specific fish species will be seasonally active, WDFW may elect to change the dates of the protocol survey window(s); therefore the Department of Natural Resources (DNR) recommends you consult with the Washington Department of Fish and Wildlife (WDFW) and the local affected tribe(s) prior to the survey season to help determine the appropriate protocol survey window(s) for determining fish presence or absence.

**May I use e-DNA as an alternative to a protocol surveys?**

No, at this time use of environmental DNA (e-DNA) has not been established as an acceptable protocol.

**How does drought affect changes to water types?**

When applicable, the landowner requesting a water type change needs to provide information demonstrating how fish use determinations were unaffected by drought conditions and low stream flows. To assist with these determinations, the Department of Natural Resources (DNR) provides an annual [Fish Survey Season – Water Level and Streamflow Forecast](#).

**What is adequate consultation and documentation for alternate protocols?**

Adequate consultation occurs when an interdisciplinary Water Type Review Team organized by the Forest Practices Forester is consulted to determine an appropriate alternate survey protocol and, in some cases, to conduct the survey. The Forest Practices Forester documents the Team’s findings on an Informal Conference Note (ICN) noting the landowner, affected tribe(s), and agency representatives present, the method used, the data collected, and the outcome.

**GENERAL**

**Is the presence of freshwater mussels a sign of fish use?**

Yes, because fish transport and deposit mussels into freshwater streams, the presence of freshwater mussels implies that electro-shocking is not necessary because fish would (or should) be present if freshwater mussels are present.

**Does DNR provide financial assistance to help determine water types?**

No, the Department of Natural Resources (DNR) does not provide financial assistance for water type determinations.

**I’m a small forest landowner and I need assistance in water typing. Does DNR have that service available?**

Yes, the Department of Natural Resources (DNR) has statewide Regulation Assistance Foresters to help small forest landowners navigate any portion of the forest practices permitting process. Contact the Small Forest Landowner Office for more information (refer to the contact information chart above).

**I’m a small forest landowner and I want to change a stream type but my property does not meet the WAC definition of forested land. How do I get my stream type changed on the DNR Water Type Map?**

Coordinate with your local government authority (county or city) to assess the stream and have them submit the change to the Department of Natural Resources (DNR).

**What is DNR’s role for WTMFs on non-forest land?**

The review priority for the Department of Natural Resources (DNR) is for water type modifications on forestlands that are regulated subject to the Forest Practices Rules. DNR’s Water Type Map includes data about non-forestland. DNR provides a non-forestland Water Type Modification process and forms to address updates to its Water Type Map for non-forestland areas. Additional information about the Non-Forestland Water Typing process is found in the Water Typing Section of the [Forest Practices Forms and Instructions](#) webpage.