Oregon Department of Forestry

Determination of Salmon, Steelhead, and Bull Trout Streams

Regulatory Layer Adoption

June 20, 2016

I. Background and Summary

In November, 2015 the Oregon Board of Forestry (Board) voted to adopt new stream protection rules for small and medium salmon, steelhead, or bull trout ("SSBT") streams in the Coastal, South Coast, Interior, and Western Cascade geographic regions (See OAR 629-635-0220 for definition of geographic regions). The decision was based on achieving Oregon's Protecting Cold Water Criterion of the temperature standards to the maximum extent practicable as adopted by the Environmental Quality Commission (OAR 340-041-0028(11)). The criterion prohibits human-caused increases in stream temperature of more than 0.3°C under certain circumstances.

The following attributes are required in order to identify a stream segment affected by this rule process:

1. Oregon Department of Forestry (ODF) stream size,
2. Presence of salmon, steelhead or bull trout, and
3. Location is Coastal, South Coast, Interior, or Western Cascade geographic regions.

Currently, ODF does not manage nor implement stream protection rules based on species-specific classification[1]. ODF specifies protection for fish-bearing streams generally, meaning game or anadromous fish or fish listed as threatened or endangered under state or federal regulations. Proposed changes to the stream protection rules require that ODF either identify or adopt a resource layer that contains species-specific information, namely streams where salmon, steelhead or bull trout are present.

ODF is required by rule to maintain a map of stream classification based on beneficial use (Fish (F), Domestic (D), Non-fish (N)/Domestic) and stream size (Large, Medium, Small). ODF utilizes several methods to determine beneficial use where stream surveys have not been conducted and these methods are implemented under the authority of the FPA. ODF geographic information system (GIS) layers do not contain information on fish species. Artificial obstructions are not considered the end of fish use according to Forest Practices Act (FPA) rule. When ODF encounters an artificial obstruction, a physical habitat survey, or office based approach is used to determine end of fish use.

[1] Note ODF does specify riparian protections to meet the biologically based or numeric standards, which are determined based on species use, but the rules are based on fish or non-fish classification rather than by species.

The Oregon Department of Fish and Wildlife (ODFW) maintains GIS layers of fish habitat distribution (FHD) for various fish species. The information on fish habitat distribution contains a basic characterization of current and historical fish habitat use by species and run, the life history exhibited, and the basis for the identification of the habitat. ODFW is the data steward for this layer and requires certain information before making changes to the GIS layer. The FHD layer does not contain information on stream size attributes.

Existing ODF policy is to use and update the ODF GIS layer on a frequent basis. Stewardship foresters have the authority and are required under the FPA to make determinations on stream beneficial use (Type F, D, and N).

ODFW's FHD layer is managed according to the Oregon Fish Habitat Distribution Data Standard v.3.0 and 2005 Update Protocol. The FHD layer is updated on an as-needed basis by ODFW when changes are requested and minimum data standards are met. Additionally, ODFW periodically obtains and integrates data from recent state or federal agency survey efforts (e.g., spawning or snorkeling surveys).

Because the underlying stream geometry, or line work, from these two GIS layers do not match, it is not feasible, at this time, to automate an overlay of the maps to combine the necessary attributes (stream size and presence of SSBT).

II. Define the Issue

The Board has directed ODF to work with an advisory committee to provide feedback on how best to implement new stream buffer protection rules on small and medium salmon, steelhead, or bull trout streams. There are several issues that need to be evaluated before final rule language can be developed including;

- How will the current-state presence or absence of SSBT use be determined throughout the affected streams and geographic regions given existing data sets?
- Should ODF adopt a version of the FHD layer at a particular point of time to use as the regulatory layer or should ODF use the ODFW data layer as the regulatory version.
- Should updates occur dynamically, as with the current ODF process for updating unsurveyed streams or systematically as formal surveys occur? Or should ODF use a combination of update procedures?
- What happens when data sources for regulations (i.e., ODF fish/size and FHD) conflict on SSBT determination?

III. Alternatives and Analysis

Starting Regulatory Layer

The riparian rule advisory committee (RRAC) expressed general agreement that the FHD attributes that contain documented observation, incidental observation, or presence designated downstream of documented observation (observation) are legitimate to use in the regulatory starting point; however, there is a need for more conversation once ODF drafts language for the rule. The RRAC reached strong consensus that whatever rule is in place when a notification is filed applies and the rules in place when the notification was filed will continue to apply as long as the notification remains valid. This is intended to provide a level of operational certainty after a forest activity is planned and notified. Notifications cannot be continued beyond the two calendar year allocation to circumvent this rule.

The group expressed general agreement that the database needs to be updated on a case by case basis and that an established interval of programmatic update and criteria should be developed, however, more conversation is needed. The group also expressed need to discuss further the frequency of updating.

In summary, the RRAC has agreement around 80% of the current FHD layer and agreement around correcting on a case-by-case activity-basis as described under a clear set of implementable criteria. There is agreement that there needs to be a programmatic update, however, the RRAC did not reach agreement on the current criteria in use. The RRAC did not reach agreement on the 20 to 30% of the FHD layer based solely on professional opinion, or using concurrence of professional opinion in the update process or regulatory starting point.

Based on RRAC input, in particular, the consensus that rules in place when filing the notification will continue to apply as long as the notification remains valid, ODF will adopt a version of the FHD layer at a particular point of time to use as the regulatory layer (ODF's regulatory layer).

In order to help resolve the final areas of non-consensus, the following scenarios could be considered:

Scenario A: adopt all existing stream segments from the FHD layer as a regulatory starting point (except for the use of habitat evaluation (model)).

Scenario B: adopt only stream segments where direct observations of salmon, steelhead, or bull trout (or segments downstream of fish observation) are used (i.e. documented observed fish, undocumented observed fish, downstream documented observed fish). Exclude stream segments where habitat or professional opinion was used to classify distribution (documented observed habitat, habitat evaluation, concurrence of professional opinion, individual professional opinion). ODFW is currently undertaking an effort to update the FHD by changing stream segments from "professional opinion" to "downstream of documented fish observation" where that modification is appropriate based on fish observation. ODFW

expects the overall percentages of opinion-based data to be in the 15-25% range when completed.

There are pros and cons to each scenario or combination of scenarios.

Scenario A: Include all stream segments in FHD (except habitat evaluation based on modelling).

Pros:

- Bias neutral
- Will have update/correction process
- Similar to existing regulatory approaches

Cons:

- May require more data review before adoption
- May require more field verification after adoption

Scenario B: Include only stream segments with fish observation and downstream of observation.

Pros:

- May require less field verification after adoption

Cons:

- Discounts professional opinion
- Does not include the entirety of the best available information on fish habitat distribution, likely reflecting a minimum distribution of SSBT.

Additional Considerations: Current vs Historical Habitat and Artificial Obstructions

Since the Board's decision applies on SSBT streams, ODF views historical habitat as being out of scope for this rule application. Likewise, stream segments upstream from artificial obstructions that exclude SSBT are not in scope for rule application. If future surveys indicate that SSBT reestablish presence in these stream segments, ODF will add those stream segments during the programmatic or regular update process to the regulatory layer.

Update Processes

After adoption of a regulatory starting point, updates will be required to maintain and provide the most up to date information on SSBT distribution. The RRAC expressed general agreement that the regulatory database needs to be updated on a case-by-case basis and there needs to be an established interval of programmatic updates, using developed criteria.

Short Term (case-by-case)

Short-term updates generally would occur on an operation-by-operation basis. Depending on the regulatory starting point, ODF will also need to correct inconsistencies between the new SSBT regulatory and current ODF fish layers. ODF proposes the following methods to ensure a consistent process, organized by the types of situations that can occur. The short-term process will also guide the data review and develop business rules for ODF to follow in regards to potential conflicting data.

A. Streams where ODF has not completed end of fish use surveys. ODF will continue to perform end of fish use determinations using existing policies, including the use of physical habitat and electrofishing surveys. Where these field-based surveys for end of fish use also coincidentally observe salmon, steelhead, or bull trout where those stream segments have not previously been identified as salmon, steelhead, and bull trout, those stream segments will be added to ODF's regulatory layer for salmon, steelhead, and bull trout presence. Data collection and documentation will follow established methods for both ODF and ODFW to meet agency requirements for data updates and sharing. Updates to ODF's regulatory layer for SSBT would be transferred to the ODFW FHD layers during the programmatic update.

B. Streams where salmon, steelhead, or bull trout have previously been observed, and where that observation exists further upstream than where end of fish use has been identified by field based survey. Option 1, ODF will use the furthest upstream segment with salmon, steelhead, or bull trout observation to update the end of fish use. Option 2, if requested, ODF will resurvey the stream for end of fish use using existing policies, including the use of physical habitat and electrofishing surveys. If the new survey still conflicts with the end of SSBT use, ODF and ODFW will use the NEW anadromous natural barrier criteria to resolve the conflict. Artificial obstructions that fully prevent salmon, steelhead, or bull trout use upstream will be considered the end of salmon, steelhead, and bull trout distribution.

C. Streams where salmon, steelhead, or bull trout have previously been observed, and where that observation exists further upstream than where end of fish use has been identified by non-field based methods. Option 1, ODF will use the furthest upstream segment with salmon, steelhead, or bull trout observation to update the end of fish use. Option 2, if requested, ODF will resurvey the stream using end of fish use determinations using existing policies, including the use of physical habitat and electrofishing surveys. If the new survey still conflicts with the end of SSBT use, ODF and ODFW will use the NEW anadromous natural barrier criteria to resolve the conflict.

D. Streams where salmon, steelhead, or bull trout have previously been identified by using habitat or professional opinion, and where that identification extends further upstream than where end of fish use has been identified by field based survey. ODF will use the end of fish use for the end of SSBT, i.e., move FHD downstream. Note: ODF and ODFW are working on a process to complete these corrections prior to adoption of the starting regulatory layer.

E. Streams where salmon, steelhead, or bull trout have previously been identified by using habitat or professional opinion, and where that observation exists further upstream than where end of fish use has been identified by non-field based methods. Option 1, ODF will use the furthest upstream segment of SSBT to update the end of fish use. Option 2, if requested, ODF will resurvey the stream using end of fish use determinations using existing policies, including the use of physical habitat and electrofishing surveys. If a conflict remains after completing the field-based survey, the process would follow case D above.

Programmatic

ODFW updates the FHD layer on an as-needed basis when changes are requested and minimum data standards are met. ODF needs a programmatic update process to incorporate these changes into ODF's regulatory layer on a periodic basis to maintain and provide up to date information on SSBT. ODF and ODFW will also use this process to transfer the corrections made using the short-term update process to the ODFW FHD layer.

To conduct the programmatic update, ODF needs to define frequency of update, transfer of short-term corrections to the FHD layer, and new FHD segments to add to the regulatory layer.

The programmatic update should occur on a frequency that prevents the regulatory layer from significantly underestimating SSBT presence, while not requiring agencies to meet unrealistic or unnecessary workload. ODF proposes that programmatic updates occur every two to four years, depending on the amount of changes that have occurred to the FHD layers. Transfer of short-term corrections to the FHD layer is a technical issue to be coordinated with ODFW during programmatic update.

Determining the new FHD segments to add to the regulatory layer has similar options as the starting layer:

Scenario A: Include all new stream segments in FHD (except habitat evaluation based on modelling).

Scenario B: Include only stream segments with fish observation and downstream of observation.

The RRAC also discussed which providers to include when updating the regulatory layer. Some members suggested that only new stream segments with observation by Category 1 providers be included in the update to the regulatory layer.

IV. Recommendation

TBD