Statewide Flowline Layer FAQ (Stream Layer)

Why did ODF Publish a new stream layer?

The Statewide Flow Line data was developed as mandated in the Oregon Private Forest Accord (PFA) and Senate Bill 1501 (2022), which are a result of negotiations between timber industry and conservationists to better protect fish habitat through increased requirements in the Oregon Forest Practices Act (FPA) on tree retention in riparian habitats along fish bearing streams.

What data was used to create the new stream layer?

The streams were first developed using the best available digital elevation models (DEMs). The available DEM's were either derived from 1-meter resolution Lidar data where available or the 10-meter National Elevation Dataset. The streams were then populated with fish presence and other attributes from both modeling and past survey efforts. For detailed information on modeling methods, please refer to the [Private Forest Accord Report](#) (Chapter 2 & Appendix B).

When did the stream classifications become effective for implementing the FPA?

- The State Forester has classified streams pursuant to Division 635 and according to requirements in PFA Report which required it to be published in FERNS by July 1, 2023.

- On July 1st, 2023, the new stream classifications became effective for notifications submitted on or after this date. For landowners, other than those owning small forestlands, the vegetation requirements for fish streams also became effective. ODF encourages all landowners to access or download the new Flow Line Hydrography data.

- Any written plan that addresses the protected resources appropriately and describes the protections would still be valid but may need to be amended if the streams classification changed since original submittal to address the protected resources adequately. The landowner retains the option to complete a field survey and submit it to ODFW for review to validate any fish use classification. The landowner may also request the stream classification to be reviewed by the ODFW PFA biologist as well.

How were the streams sizes calculated and why are there differences from the previous statewide stream data?

- The mean annual flow was calculated by the contractor (Terrainworks) during the watershed modeling process for all modeled stream segments in the Flow Line dataset.

- The contractor (Terrainworks) used the regression equations for both eastern and western Oregon provided in [Forest Practices Technical Note No. 1](#) The equations were reformatted into metric units in which the outputs were then

converted back to imperial. As per Forest Practices Technical Note 1, the inputs for the calculation include the upstream drainage area and normal annual precipitation.

- The upstream drainage area for each segment was calculated using the elevation data and DEM's and the annual precipitation is sourced with the OSU PRISM climate data for the 30-year normal mean annual precipitation raster data. For each location in the stream network, the upstream mean annual precipitation values were developed. This value plus the upstream drainage area for this location were used to calculate mean annual flow. The stream sizes were then classified into their appropriate size as defined by the FPA using this calculated flow value.

Why does a stream that was not previously SSBT, now show as one?

The SSBT distribution likely existed in the ODFW data provided to ODF previously but may have not shown as the regulatory layer was filtered to small and medium streams only. Due to the stream sizes being calculated for all streams, the SSBT distribution for what is now a medium size stream, may have been previously a large stream. SSBT distribution information is now included on all stream sizes.

Why have the stream classifications in my area of interest changed? How do we request validation that the information is correct?

Any previous fish use classification that was based off non-field survey methods were not brought into the new Flow Line data. To develop the Flow Line data only qualifying fish use field surveys from the previous Statewide stream were brought into the Flow Line attribute data. Landowners may complete field surveys for fish use and have it approved by ODFW to either verify or revise the fish use classification. Surveys may be completed by ODFW based on availability and if other information is available to inform the stream classification.

How do I identify small Type N streams that would require a tree retention area?

The "distance to Fish and SSBT" fields reflect the distance (in feet) from the furthest upstream point of a segment that is identified as fish (or SSBT) to the furthest downstream point of each upstream segment. The "distance to" fields are not yet finalized, with additional work planned to clean up the values in the published data. Some inaccuracies in these fields are known to occur which is the result of the data originally being modeled in different environments. Flow Line attributes can be used to identify streams that generally meet the conditions of the Small Type Np streams flowing into Type F/(SSBT) as shown in the example query:

FishPresence = 2 And StreamPermanence = 1 And FPAStreamSize = 1 And DistanceToFish < 600