

Two-year Flood Inundation

Technical Details

Two-year flood inundation was produced by River Design Group, Inc (RDG) and represents areas of predicted inundation associated with a regulated two-year flood event. The two-year flood inundation is reported in the field *FLD_2YR* in the GIS data and in the column *2-year Flood Inundation* in the Excel spreadsheet. The value shown in the GIS attribute field and spreadsheet column represents the number of acres in each 100m slice with a two-year flood inundation depth greater than zero.

The regulated 2-year floodplain inundation map is a tool used in identifying restoration opportunities in the Willamette River floodplain and is not intended for floodplain management or regulatory uses.

River Design Group, Inc. (RDG) with funding provided by the Meyer Memorial Trust (MMT) and The Nature Conservancy (TNC), collaborated with a Technical Team comprising representatives from MMT, TNC, Oregon Watershed Enhancement Board, Oregon State University, University of Oregon, and Bonneville Environmental Foundation to facilitate mapping the regulated 2-year discharge on a 160 mile reach of the Willamette River and 60 miles of the Middle Fork and Coast Fork Willamette River and the McKenzie River.

The goal of the Willamette Basin Floodplain Inundation Mapping Project is to estimate the extent of floodplain inundation associated with the regulated 2-year discharge on the Willamette River and key Cascade Range tributaries by using LiDAR datasets, hydrologic data and a “bath tub” method hydraulic analysis. The regulated 2-year discharge was selected as a frequent flow that has ecological importance for fish inhabiting the Willamette River system. Report and map deliverables completed for each water body are anticipated to be used as tools for identifying potential floodplain restoration areas, locating possible obstructions to river-floodplain habitat interaction, and assisting fisheries managers with locating possible floodplain refugia habitats for native fish species including federally-listed spring Chinook salmon.

The resulting 2-year floodplain inundation layer illustrates areas of predicted inundation associated with a regulated 2-year flood event. Depth represents depth of water, in feet, above the topographic surface captured during LiDAR acquisition and does not necessarily reflect true water depth.