**Adult Winter steelhead response to the 2014 Oso Landslide**

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On March 22, 2014 a large mudslide on the North Fork Stillaguamish River temporarily dammed the river at Oso. The mudslide destroyed a neighborhood, killed 43 people, and dramatically altered river habitat downstream. Historically the majority of observed wild adult winter steelhead spawning in the Stillaguamish basin occurred in the North Fork above the slide area. After the slide there was initial concern as to whether wild adult winter steelhead would be able to locate suitable spawning habitat by navigating upstream through the slide area, or finding alternate spawning habitat in other parts of the system. To determine if any emergency management actions were required, we assessed wild adult winter steelhead response to the slide using abundance and distribution metrics.

2014 redd distribution data indicated that wild adult winter steelhead were able to respond to the slide. 2014 wild adult winter steelhead abundance in the North Fork and tributaries above the slide, as well as in the surveyed index areas of the entire Stillaguamish system was above average. Adult distribution data suggested that some wild adult winter steelhead may have chosen alternate spawning habitats in the South Fork tributaries and in areas below the slide on the North Fork. Redistribution patterns have been seen in other systems affected by large scale natural disturbances. Salmonids have evolved to withstand and adapt to disturbances, and to date wild adult winter steelhead in the Stillaguamish appear to be no exception.