

OWEB Project # 207-082
Wiley Creek Fish Passage Improvement Project
Monitoring Report, December 2008

1. A description of any maintenance performed.

In the past year no maintenance on the bridge or any other aspect of the project has been required or performed.

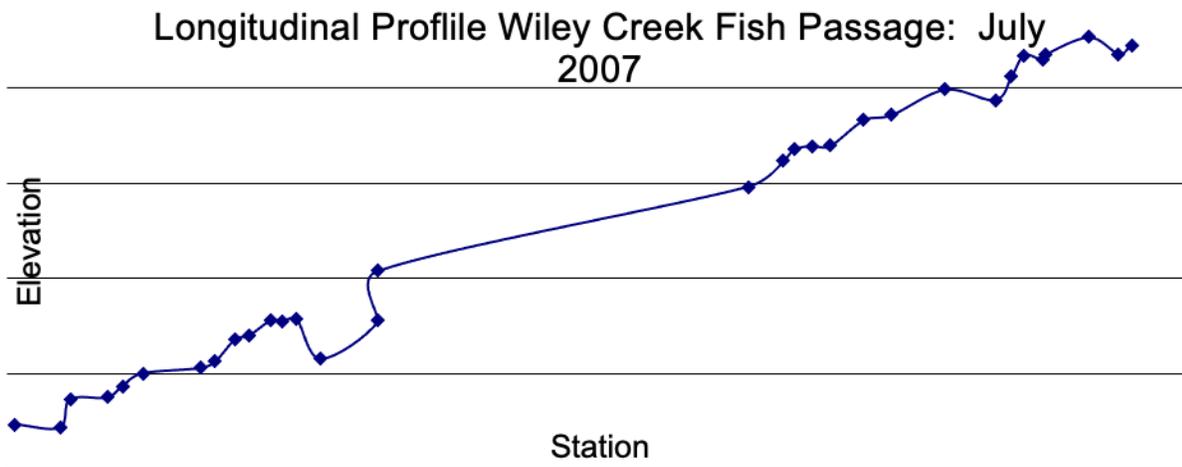
2. An accounting of any costs associated with maintenance and post-implementation status reporting.

U.S. Forest Service seasonal techs contributed 16 hours of monitoring including snorkel surveys and longitudinal profiles. U.S. Forest Service District Fisheries Biologist contributed 6 hours of monitoring, including snorkel surveys and data analysis. Total USFS contribution was \$361.54.

South Santiam Watershed Council staff spent 20 hours completing snorkel surveys, project photopoints, data entry and analysis for longitudinal profile, mapping, and report writing. Staff hourly rate is \$35/hour for a total of \$700.

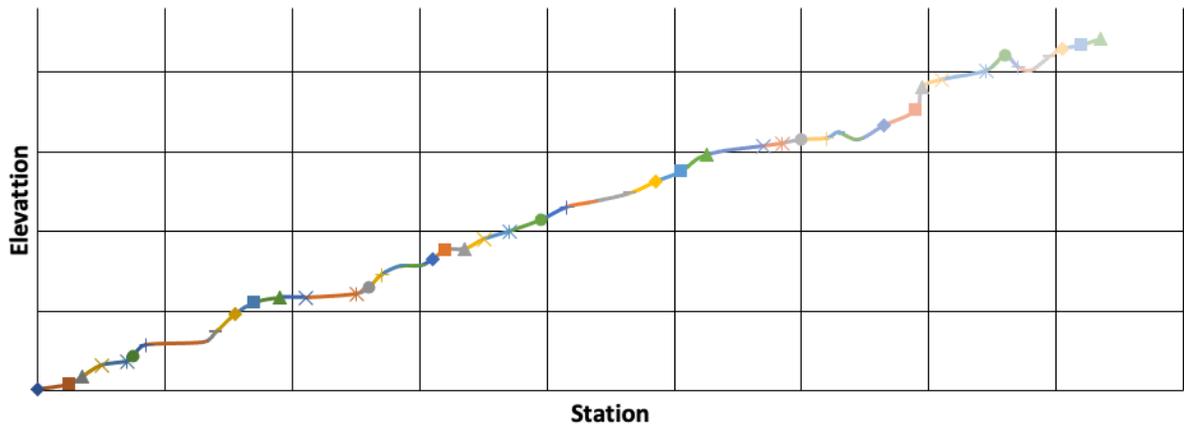
3. An assessment of whether the project continues to meet the goals specified in the grant agreement.

A longitudinal profile was completed in July, 2008 to complement profile taken before the project was implemented in 2007. The graphs for these profiles are embedded below. In the July, 2007 profile the culvert begins at approximately station 50 and ends at approximately 100 and is seen as the straight line with a slope of 8%. The reach slope was 13%. The reach above the culvert was snorkeled before project implementation and no fish were found.



The 2008 longitudinal profile is interesting as it clearly shows where the culvert was replaced by a bridge at approximately station 50. While the reach slope remained approximately 13%, it was slightly higher than the 2007 profile as the reach from station 50 to station 100 where the culvert once provided an 8% slope is now among the steepest in the reach at 15%.

Longitudinal Profile Wiley Creek Tributary Bridge Project: July 2008



While the slope of the tributary to Wiley Creek is quite high, juvenile salmonids were observed throughout the project reach and particularly above where the slope remained steep but a series of step pools and quality habitat provided refuge for fish. The fish were observed using a mask and snorkel and were found in pools and other “fishy” looking habitat throughout (see map). The extent of fish presence was approximately 0.25 mile from the confluence where a large waterfall blocked passage. However, several large (5”+) fish were observed in the pool below the waterfall. The species were not identified, and it will be necessary to bring a net to the pool in 2009 in order to identify whether the fish observed were *oncorhynchus mykiss* (steelhead/rainbow trout) or *oncorhynchus clarki* (cutthroat trout).

The presence of fish above the replaced culvert presents a number of potential scenarios. The most obvious is that the removal of the culvert opened up 0.25 miles of habitat for juvenile rearing and/or residence of native fish species. This seems likely as no fish were observed above the culvert before it was removed in 2007. However, there is a possibility that fish were either in the system before the culvert was removed and just were not observed. This could have been a natural occurrence with fish migrating into the tributary before the culvert was placed in the 1960s or through human introduction at some point. A logging road crosses the tributary at an upstream location and it is possible that fish were introduced at that point. While the project partners agree that the first scenario is most likely, that fish simply migrated into previously inaccessible habitat, a survey will be conducted *above* the impassible falls in 2009. If fish reside above the falls, further exploration may be warranted.

4. A summary of any public awareness or educational activities related to the project

The project occurs on private property accessed through five miles of logging roads, thus it has not been included in watershed tours or other educational activities.

5. A description of the condition of the project as it relates to the original proposed design and any modifications made during the implementation.

No modifications have been made to the original project. In retrospect, it would have been beneficial to include limited riparian vegetation plantings to improve habitat conditions immediately upstream and

downstream from the bridge and some willow stakes may be transplanted to the site in the future depending on the scope of natural colonization.