McDonald Creek Streamwalk Report 2014

Group members: Sarah Miller, Paul McBeth, Glenn Browning, Carol Young and Robert Buck

On February 1, 2014, five Streamkeeper volunteers left the Saturday morning comfort of their homes to descend the last 1.4 mile stretch of McDonald (the officially recognized name according to Ed Chadd) Creek on foot, to its terminus at saltwater. This section is bordered on both sides by private properties consisting of single family residences and one small mobile home park.

The group departed under overcast skies from sampling site 1.4, alternately know as Paul McBeth's Sequim Fish Camp. Due to rains on three preceding days, the creek was running at a volume of 44 cfs* (based on Feb. 1 reading of Dept. of Ecology telemetry flow monitoring station at mile 3.1), about 4 times that measured by the same team (including Janets Bruening and Oja) on Jan. 26., and there was the expected elevated turbidity. However, the creek could still be waded without difficulty. The dominant substrate size appeared to be gravel, 1" to softball size. The estimated active channel averaged about 12-18 ft. in width and about 8-12 in. in depth. Pools and riffles are present on this section. We confined our walk mainly to the banks except to cross the stream when encountering dense brush or other obstacles.

In one sense, winter is a good time to walk a stream, as the dormancy of the deciduous shrubs and vines allows for better viewing. The leaves of Indian plum were just beginning to push aside their bud jackets and exposing a little green prior to unfurling. The riparian corridor appeared to be roughly 300 ft. wide, the forest dominated by red alder, with less numerous big leaf maple and a scattering of western red cedar. Douglas fir are also fairly numerous farther from the flood plain on higher ground. A few Sitka spruce occupied the upper stream bank near the mouth. Shrubs and small trees are numerous and dense for most of this section, while herbs and grasses are present as well. There were a number of suitable planting sites in the riparian zone for western red cedar.

Stream shading by alder is fairly good for most of this stretch, the extent of overhead canopy estimated at 75-80% with a closed canopy present about 55-65% of the time, and few really long openings. One of the larger openings was about 75 yards long and had the least stream-side vegetation in terms of shrubs and trees. Another 100 yard natural opening occurred farther north, in the vicinity of a steep eroded bank (a natural slide roughly 100 ft. high on an outside curve) in the main channel. A number of the larger alders (12-16 in. dbh) have leaned out over the water in competition for sunlight, helping to close the canopy. Some seem to defy gravity for now and will ultimately add some major woody debris to the stream channel when they fail. They will complement the five or so engineered log jams we observed, constructed of western red cedar boles anchored with stainless steel cable to cedar piles driven into the sedimentary stream bed substrate. In time these jams will capture enough debris to develop a more natural appearance. They are already influencing the creation of pools. Other than these engineered jams, no artificial stream modifications were noted. Collapsed or eroded banks observed were natural. Foam was noted trapped in eddies or against major woody debris and appeared to be natural surfactants resulting from organic decomposition.

Wildlife heard included a raven, bald eagle and possibly a winter wren. Seen were a small brown bird over the water (dipper?) and a belted kingfisher at the lagoon at the end of the stream. There were also deer and raccoon tracks, and at one location, what appeared to be coyote scat. A flock of oddly inanimate pink flamingos was wending its way up the west bank about midway in the trip. No fish were observed, but on an early January 2014 walk of the same stretch, Chris Burns et al, representing the Jamestown Tribe, flagged a redd which we noted. There was also a flagged redd in the same vicinity dated the previous year. Chris reports having observed evidence of otter activity, including predation of adult coho. At about the 0.4 mile mark we spotted the Jamestown Tribe smolt trap, disassembled for the season.

Invasive plant species are English ivy (roughly miles 0.7 and 0.3?), herb Robert and what Sarah thought was Japanese knotweed (mile 0.5?). A sample of the "knotweed" will be taken for positive ID. Also, the all too common Himalayan blackberry was seen in the vicinity of the "knotweed."

Several potential monitoring sites are located at about mile 0.1, just upstream of the lagoon, on property owned by the McDonnell Creek Ranch homeowners association. These would be easily accessible via the trail maintained by the association, and Glenn will request permission for Streamkeepers to use the trail and conduct monitoring in this area.

When we reached the mouth at the beach, the tide was too low for steelhead or salmon to enter the creek, but there were no other barriers to inhibit such access at higher tides. Chris Burns noted similar conditions on his January walk. Low stream flows throughout the fall of 2013 would have allowed sediment to accumulate at the north edge of the lagoon, where the stream spills over the beach into the strait. This absence of sediment flushing may have contributed to the poor fall coho run, as the fish were able to enter the stream perhaps only at the highest tides (+ 7ft. or more). Once in the stream, the low flow would have made the fish easier targets for predators (otter, eagle, raccoon, etc.).

Without considering benthic invertebrate data, the stream corridor appeared to be in reasonably good condition, well vegetated and with no artificial bank or channel alterations, and little obvious erosion from human activities. The riparian forest needs more large coniferous trees to provide future long lasting major woody debris and shade. More numerous deep pools should develop as the log jams have their intended effect.

UPDATE: The lagoon was reported to have washed out during high February 17-19 flows, and this was confirmed by Glenn Browning and Carol Young on Feb. 26. The flow that day was 140 cfs. This will provide much needed passage to steelhead moving into the stream during February and March, but also temporarily compromise the lagoon as an important rearing habitat for juvenile salmonids. When the lagoon reforms during lower flows, as sediment accumulates faster than it is removed, it will likely be of different configuration and some years may see the "bar" at the mouth create a nearly complete or complete barrier to salmonid passage. Annual monitoring of lagoon conditions in relation to salmon and steelhead escapement and in-stream salmonid production might be a worthwhile project.

Report written by Robert Buck, 3/4/14