

Fish Use of Stream Drainage Basins in the City of Bellevue

April 2009

Background and Data Sources

Current knowledge of the species of fish in Bellevue's streams and their distribution is based on stream typing work conducted in the summer of 2001 (The Watershed Company 2001) that involved assessing culverts as to whether fish could pass upstream and electrofishing; an electrofishing survey conducted at five sites in the Kelsey Creek basin in 2007 (City of Bellevue, unpublished data) and fish moved prior to sediment removal from two sediment ponds along Coal Creek (The Watershed Company 2007a); salmon spawning surveys conducted annually during the fall between 2001 and 2008 (Taylor Associates 2002; The Watershed Company 2003, 2004, 2005, 2006, 2007b, 2009); and peamouth surveys and spawning observations conducted by Bellevue staff and volunteers between the late 1990s and 2008 (City of Bellevue, unpublished data). Lake Washington shore use by warm water fish was documented by Washington Department of Fish and Wildlife in June of 2005 (Personal Communication, Chad Jackson, July 18, 2007). Fish use of the lake shore along Lake Sammamish has not been documented by the City of Bellevue.

Vasa Creek Basin

According to Washington Department of Fish and Wildlife information (Downen 2000), the reaches of Vasa Creek (08-0156) nearest to Lake Sammamish contain cutthroat trout and late run kokanee, as well as coho and sockeye salmon. The first small tributary is entirely within the influence of the main channel and presumed to have similar fish use. The other small tributary flows through a restored corridor along 167th Avenue SE. Numerous juvenile cutthroat trout were visible in the downstream pools in the summer of 2001. However, several installed weirs with 18-inch plunges possibly hinder upstream migration. The survey effort did not discover any fish in the upper portion of this tributary, located in a ditch parallel to SE 35th Street. The reach, located above an impassible fish barrier at I-90, consists of a sedimentation pond and a gravel-filled channel that lacks perennial surface flow. Surface flow was observed both upstream and downstream of this segment and thus, flow must go subsurface through a thick gravelly substrate during summer months. Although no fish were present in the sedimentation pond, the possibility of a resident population in Eastgate, outside of City limits, cannot be ruled out without field verification. A high flow bypass from I-90 to lake Sammamish removes much of the peak flows from the open stream.

See Bellevue's Basin Fact Sheet main web page for additional fish use information for Bellevue streams.

References Cited

- Downen, M., WDFW. 2000. Personal communication with K. Paulsen. Bellevue, WA.
- Taylor Associates. 2002. Kelsey Creek and Tributaries 2001 Spawner Survey, Bellevue, WA.
- The Watershed Company. 2001. City of Bellevue Stream Typing Inventory: Final Report. City of Bellevue, Utilities Department, Bellevue, WA.
- The Watershed Company. 2003. Salmon Spawner Survey 2002: Kelsey Creek and Tributaries. City of Bellevue, Utilities Department, Bellevue, WA.
- The Watershed Company. 2004. Salmon Spawner Survey 2003: Kelsey Creek and Tributaries. City of Bellevue, Utilities Department, Bellevue.
- The Watershed Company. 2005. Salmon Spawner Survey 2004: Kelsey Creek and Tributaries. City of Bellevue, Utilities Department, Bellevue, WA.
- The Watershed Company. 2006. Salmon Spawner Survey 2005: Kelsey Creek and Tributaries. City of Bellevue, Utilities Department, Bellevue.
- The Watershed Company. 2007a. Fish Salvage Report: Coal Creek Sediment Basin. City of Bellevue, Utilities, Bellevue, WA.
- The Watershed Company. 2007b. Salmon Spawner Survey 2006: Kelsey Creek and Tributaries. City of Bellevue, Utilities Department, Bellevue, WA.
- The Watershed Company. 2009. 2008 Salmon Spawner Surveys: Kelsey Creek, West Tributary, Richards Creek and Coal Creek. Page 76 + appendices. City of Bellevue Utilities, Bellevue, WA.
- Williams, R. W., R. M. Laramie, and J. J. Ames. 1975. A Catalog of Washington Streams and Salmon Utilization. Washington Department of Fisheries, Olympia, Washington