

Estimation of sockeye salmon escapement into McLees Lake, Unalaska Island, Alaska, 2009

The Anchorage Fish and Wildlife Field Office operated a fixed picket weir at the outlet of McLees Lake into Reese Bay on Unalaska Island from 1 June to 18 July, 2009 to provide an accurate estimate of the sockeye salmon *Oncorhynchus nerka* escapement for management of the local subsistence fishery. Peak daily passage occurred on 2 July when 4,752 sockeye salmon were counted through the weir. Daily escapement after 14 July was extremely low and was the basis for cessation of the weir operation on 19 July. A foot survey of the only holding water below the weir was conducted to estimate remaining escapement not yet through the weir. The 750 sockeye salmon that were estimated below the weir were added to the weir count for a total escapement estimate of 10,120 sockeye salmon. The escapement was comprised primarily of age 1.2 (18%) and 1.3 (77%) fish; and males (61%). Escapements into McLees Lake have been assessed through a weir since 2001 and the 2009 escapement was the second lowest during that period. For the second consecutive year, the subsistence fishery was closed in-season as a response to the low return. Sampling for zooplankton in McLees Lake was conducted to assess freshwater rearing conditions. Zooplankton densities and species diversity were low, suggesting that food for rearing sockeye may be limiting.

Citation: Hildreth, D.R. and H. Finkle. 2010. Estimation of sockeye salmon escapement into McLees Lake, Unalaska Island, Alaska, 2009. Final Report (Study Number 07-405). U. S. Fish and Wildlife Service, Anchorage Fish and Wildlife Field Office, Alaska Fisheries Data Series Number 2010-11, Anchorage, Alaska.