Essential Fish Habitat project status report

Reporting date: 10/5/09

Project number: 2008-04

Title: Physical and temporal aspects of pollock spawning habitat utilization

PIs: Kevin Bailey and Kung-sik Chan

Funding year: 2008

Funding amount: $33,980

Status: x☐ Complete ☐ Incomplete, on schedule ☐ Incomplete, behind schedule

Planned completion date if incomplete:

Reporting: A draft manuscript has been completed. This manuscript is being revised. In the continuation funding for 2009, the modeling results will be refined.

Results: Our project examined the temporal and spatial aspects of occupation of spawning habitat by walleye pollock in the Gulf of Alaska as reflected by ichthyoplankton data. Larval hatchdate distributions are shaped by the inflow/outflow dynamics of spawning and mortality. We developed statistical modeling techniques using a 20 year time series of hatchdate distribution data, with which we were able to describe how habitat related variation in temperature and transport, harvesting and intervention effects (regime shift and oil spill) influenced the spawning time and survival of pollock larvae.