

## EXHIBIT “C”

### Scope of Work/Project Description

#### Cumberland Creek Mitigation Project

##### Purpose

- Relocate Cumberland Creek to its historic alignment across the Cumberland peninsula, restoring habitat for wildlife species and improving the overall ecological health of the Skagit River system.

##### Project Goals

- Reconnect Cumberland Creek to its historic channel utilizing 4,380 linear feet (LF) of existing, historic stream channel.
- Increase available spawning, rearing, foraging, and refuge habitat for salmonids and other resident fish in the Skagit River system.
- Restore natural conditions to areas impacted by Project construction.

##### Project Elements (See, **Exhibit A-1** “Real Estate Map”)

- **Diversion to Historic Channel:** Create a diversion channel to the west of the existing creek that reunites Cumberland to its historic alignment. The diversion will begin about 80 feet downstream of the South Skagit Highway Bridge. It will be excavated 2-3 feet deep for approximately 200 feet where it will then reconnect with a more well-defined relic channel. The diversion will be about 25 feet wide and will include buried, cross-channel grade control logs to mitigate for the possibility of downcutting. Large woody debris will be scattered on the right bank of the diversion to direct flow away from the existing channel.
- **Aggradation of Existing Channel:** The existing creek bed, beginning at the diversion point and ending at the existing logjam, will be aggraded 2-4 feet with gravel/boulder substrate. Grade control structures will be added to prevent bed erosion when the new diversion channel overtops into the existing alignment. Large wood will be added to the existing log jam to strengthen it as a flow impediment, to the existing right bank to

prevent further bank erosion and downcut, and to the upstream end of the aggraded reach to deflect flow into the diversion.

- **Road Deflection LWD Structures:** To prevent future migration of the creek to the South Skagit Highway, three woody debris flow deflectors will be installed along the lower half of the creek below the access road. The flow deflectors would consist of buried logs with the rootwads protruding into the channel to deflect flow from the left bank and create habitat.
- **Vegetative Restoration:** All trees larger than three inches diameter at breast height (dbh) removed for equipment access and to establish the appropriate channel width shall be mitigated through 3:1 plantings of conifers along the historical channel alignment. Willow stakes shall also be planted along the banks where the historic channel has been disturbed. The construction staging area shall also be revegetated per design specifications. All vegetation restoration shall be conducted per the specifications as described in the US Army Corps of Engineers final full plan set for the Project #SKA 06-07 and Cumberland Creek Planting Specifications appendix.
- **Bridge:** In order to widen the channel capacity under the existing access road and maintain landowner access a railcar bridge will be installed in place of the existing deteriorated box culvert. Skagit County shall maintain the bridge to preserve current landowner access.
- **Monitoring:** The US Army Corps of Engineers shall evaluate the effectiveness of the Project and report to the stakeholder group on the general condition of each key features on the design one year after the Project completion.

### Project Design and Specifications

The Project is to be implemented per the final specifications shown in the design packet U.S. Army Corps of Engineers Project # SKA 06-07 – FY 13 "Public Law 84-99 Levee Rehabilitation; Cumberland Creek Mitigation Project; Skagit County, WA, to be reviewed and accepted by the parties prior to finalization.