

3.8 Fish and Essential Fish Habitat

Existing Conditions

Campbell Creek provides for the migration, spawning, rearing, and/or over-wintering of chinook, sockeye, pink, and coho salmon; resident Dolly Varden; and rainbow trout (Alaska Department of Fish and Game [ADF&G] 2004a; MOA 1981). Within the vicinity of the project, Campbell Creek supports chinook and coho salmon rearing and spawning habitat (Seaberg 2004). In addition, Campbell Creek and associated wetlands represent important anadromous fish habitat in the MOA (MOA 1981).

Existing fish habitat under the Dowling Road bridge is limited by the lack of riparian vegetation and lack of light under the bridge. The habitat immediately underneath the bridge consists of large boulders that are adjacent to the bridge abutments and in the channel. These boulders constrict the channel and cause a slight increase in velocity for the fish traveling upstream. Fish traveling upstream pass under the bridge and do not rest or stop under the bridge. Once they are past the bridge, they usually rest in the glide habitat just upstream of the bridge (Bosch 2004).

In December 2005, a survey conducted by ADNR, with assistance from HDR Alaska, Inc., indicated that there are no fish in Tina Lake.

Essential Fish Habitat

The MSFCMA directs federal agencies to consult with NOAA Fisheries when any of activities of the federal agency may have an adverse effect on essential fish habitat (EFH). According to Subpart J, Section 600.810, of the MSFCMA, an adverse effect is “any impact which reduces quality and/or quantity of EFH.” This section also notes that “adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, or reduction in species' fecundity), site-specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.”

What are resident fish?

Resident fish are fish that remain in fresh water for their entire life cycle.

What is essential fish habitat?

The Magnuson-Stevens Fishery Conservation and Management Act in Title 50, Section 600.10, of the *Code of Federal Regulations*, defines EFH as:

“...waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.... For the purpose of interpreting the definition of essential fish habitat, ‘waters’ include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; ‘substrate’ includes sediment, hard bottom, structures underlying the waters, and associated biological communities; ‘necessary’ means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem; and ‘spawning, breeding, feeding, or growth to maturity’ covers a species’ full life cycle.”

— 50 CFR 600.10

According to NOAA Fisheries and ADF&G's *Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes*, Campbell Creek is designated an anadromous stream. (ADF&G ~~2006~~ **1998**). According to the ADF&G Fish Distribution Database (ADF&G 2004a), Campbell Creek (Anadromous Stream 247-60-10340) provides habitat considered to be EFH for chinook, sockeye, pink, and coho salmon. Chum salmon also occur in Campbell Creek but do not have EFH within Campbell Creek (Bosch 2004).

Environmental Consequences

The No Action Alternative would have no impact on fish or EFH.

Under the Proposed Action, no adverse impact to the aquatic resources in the project area is anticipated. No work below ordinary high water is planned **in Campbell Creek**.

The placement of in-stream riprap in Campbell Creek would be avoided through the use of trench fill revetments. Because no piers would be located below ordinary high water in Campbell Creek, they would be outside the EFH. Making the bridge opening wider and placing the bridge abutments farther from the creek would have a positive effect on EFH under the Campbell Creek bridge because the existing bridge constricts the creek during high-flow events.

The replacement bridge would cross more of the creek (and EFH) than the existing bridge. The increased width (approximately 64 feet wider) of the new bridge would marginally increase stream shading in this reach of Campbell Creek. Stream shading would be minimized because the replacement bridge is approximately ~~46~~ feet higher than the existing bridge allowing more sunlight to get underneath the bridge. Stream shading influences the migration, holding, and rearing patterns of salmonids and other fish. This section of Campbell Creek is glide habitat and the

increased shade in this area would not be expected to have an adverse impact on EFH.

Riparian vegetation can provide multiple environmental benefits (fish habitat, bank stabilization, and filtration of surface water runoff). However, the amount of riparian vegetation affected (approximately 0.05 acre) during the course of the proposed project would not have an appreciable impact on aquatic resources or water quality. To the extent practicable, the stream banks would be reseeded or replanted to maximize the amount of riparian vegetation near the bridge.

Construction

Construction impacts associated with the removal of the existing bridge are not anticipated.

The contractor would be required to implement construction BMPs (such as silt fencing and sedimentation ponds) and to avoid disturbing sensitive areas during the development and use of any staging areas, access roads, and turnouts associated with construction. **Temporary staging areas would not be located within the riparian buffers of Campbell Creek.**

Construction would be timed to minimize any adverse effects to salmon during critical life stages.

Mitigation and Authorizations

The MSFCMA directs federal agencies to consult with NOAA Fisheries when any activities of the federal agency may have an adverse effect on EFH. DOT&PF initiated an agency consultation process in August 2003 by sending a project scoping letter to NOAA Fisheries. NOAA Fisheries expressed a concern that the project may have an adverse effect on EFH and anadromous fish resources. As a result, DOT&PF requested its consultant, HDR Alaska, to prepare an EFH assessment to determine whether the project would have an adverse impact on EFH.

The EFH Assessment is located in Appendix F.

The EFH assessment concluded that the Proposed Action would not have an adverse impact on fish or EFH resources. On July 14, 2006, a project team representative spoke with Brian Lance of NOAA Fisheries to discuss the project and the potential impacts to Campbell Creek. Lance stated that if FHWA does not anticipate an adverse impact to EFH, an EFH assessment is not required and no further consultation is necessary at this time.

BMPs, developed in accordance with *Storm Water Management for Construction Activities: Developing Pollution and Prevention Plans and Best Management Practices* (EPA 1992) and *Storm Water Pollution Prevention Plan Guide* (DOT&PF 2004), would be employed to minimize the introduction of sediment and siltation of ponds and streams during adjacent fill placement and during bridge construction.

All fueling and servicing operations would be conducted at least 100 feet from all streams and water bodies, and fuel storage would be at least 100 feet from all wetlands and water bodies **except for low mobility equipment like piles drivers that will require appropriately sized full containment measures to address the maximum spill possible.**

Silt fences would be used adjacent to EFH stream channels, just beyond the estimated toe of slope.

Disturbed areas would be revegetated to stabilize soils and to minimize further runoff **except in areas where vegetation will not grow such as under bridges.**

The NPDES Construction General Permit would be complied with during construction.

Spill prevention plans and measures will be implemented during construction. Clean-up materials and trained personnel would be on-site throughout construction to respond to spills.

Contaminant-free embankment and surface material would be used during construction.

All demolition and construction activities would occur out of Campbell Creek to avoid negative impacts on EFH. If work is necessary below OHW in Campbell Creek, a DNR-OHMP Title 41 Permit would be obtained prior to the initiation of that work.

All necessary permits and agency approvals would be obtained before project construction. Applicable permits and approvals for the proposed project are ADNR-OPMP Coastal Project Questionnaire and MOA Flood Hazard Permit.