

**Kenai Peninsula Aquatic Ecosystem Restoration**

**FY2016 Request: \$8,175,000**

**Reference No: 60767**

**AP/AL:** Appropriation

**Project Type:** Parks / Recreation

**Category:** Natural Resources

**Location:** Kenai Peninsula Borough

**House District:** Kenai Areawide (HD 29-31)

**Impact House District:** Kenai Areawide (HD 29-31)

**Contact:** Linda Kilbourne

**Estimated Project Dates:** 07/01/2015 - 06/30/2020

**Contact Phone:** (907)278-8012

**Brief Summary and Statement of Need:**

The proposed Kenai Peninsula Aquatic Ecosystem Restoration Project (Project) will help restore physical and biological processes within the Kasilof and Anchor River Watersheds in order to contribute to a healthy, productive and biologically diverse ecosystem for the benefit of injured species and services. The project will eliminate four barriers to aquatic species passage on the Anchor and Kasilof Rivers. This project supports the overarching stated goal of the Exxon Valdez Oil Spill Trustee Council (EVOSTC) Restoration Program by providing benefits to injured resources and services, and helping to sustain healthy, productive ecosystems in order to maintain naturally occurring diversity.

<b>Funding:</b>	<u>FY2016</u>	<u>FY2017</u>	<u>FY2018</u>	<u>FY2019</u>	<u>FY2020</u>	<u>FY2021</u>	<u>Total</u>
EV OSS	\$8,175,000						\$8,175,000
<b>Total:</b>	\$8,175,000	\$0	\$0	\$0	\$0	\$0	\$8,175,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

**Operating & Maintenance Costs:**

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Prior Funding History / Additional Information:**

The November 1994 Restoration Plan (Plan) directs the EVOSTC to invest in restoration actions that contribute to a healthy, productive and biologically diverse ecosystem within the spill area that supports services necessary for people who live in the area. The proposed project addresses one of the five categories of allowable restoration activities, General Restoration, through, "manipulation of the environment."

**Project Description/Justification:**

The EVOSTC gave preliminary approval for projects A, B and C summarized below. The timeline for projects A and B is FY2016 through FY2018, project C is the last phase of the project and would follow projects A and B. Procurement for construction projects is lengthy and authority to expend must be available prior to initiating the process.

Project A: Aquatic species passage restoration project at Nikolavesk Road (ADFG Barrier ID # 20300985) - \$1,635,000; estimated time for completion, 18-20 months.

The North Fork of the Anchor River crosses at Nikolavesk Road Mile 0. ADF&G has identified this crossing as a barrier to fish passage - both juvenile and adult salmonids - particularly at low water when adult fish cannot pass through the culvert to reach spawning areas. Local ADF&G habitat staff reported anadromous fish having challenges negotiating this known barrier in 2011. It is undersized, steep and has a downstream perch. This stream clearly impedes fish passage, and access to documented spawning and rearing habitat are above this location. The current crossing was permitted and constructed in response to flood damage to the crossing in 2002.

This project will replace two existing 8' culverts with one approximately 20' embedded culvert according to stream simulation design standards. There is no regulatory or other permit requirement to address the ecological and aquatic species concerns associated with this crossing. If funding cannot be obtained there will be no further action planned at this site.

Project B: Aquatic Ecosystem Restoration at Two Moose Creek – Tributary Anchor River at Sterling Hwy Mile 159 (ADFG Barrier ID # 20300989) - initial estimate \$4–5 Million with \$1,090,000 EVOS funding; estimated time for completion, 3 years.

This site is one of the most clearly recognizable causes of habitat fragmentation in the Anchor River Watershed. The crossing is undersized, steep and has a downstream perch. When coupled with the riparian and channel impacts associated with past gravel mining upstream, this site has significant impact on stream health and physical processes, as well as prevents the passage of anadromous fish. In the spring floods of 2012, this crossing was overwhelmed and topped the Sterling Hwy. The project anticipates this crossing could be addressed as a part of DOT's Sterling Highway upgrade project.

An approximately 18-20' stream simulation design crossing is desired. DOT has indicated that design options to address this crossing will be explored as a part of the Sterling Highway project. The Two Moose barrier is an area of opportunity for securing funding support (through EVOSTC or other funding source) to address incremental costs above what would be required by designs and permits in order to achieve the enhanced ecological benefits desired for aquatic species and their habitats and community services that benefit from these species and services (e.g. fishing, passive uses, stream function and habitat enhancements).

Project C: Kasilof Watershed Ecosystem Restoration at Crooked Creek Mile 110.5 (ADFG Barrier ID # 20300979) - initial estimate \$10 Million with \$5,450,000 in EVOS funding; estimated completion time, 5 years.

Crooked Creek is a major tributary to the Kasilof River and supports the majority of the salmonid production in this watershed. Crooked Creek is a 46 mile-long non-glacial stream that flows northwest from about 1,500' elevation in the northern Caribou Hills to RM 6.5 of the Kasilof River. The upper 29 miles are within Congressionally-designated Wilderness of the Kenai National Wildlife Refuge. The lower 31.6 miles are designated as a state-listed anadromous stream with steelhead, Dolly Varden, pink salmon, Pacific lamprey, and spawning Coho, king, and sockeye salmon. The Crooked Creek watershed is 35,141 acres and much of the lower 16.5 miles that is outside the federal conservation unit is surrounded by riparian wetlands. The stream flows through Johnson Lake State Recreation Site, popular for camping by both residents and tourists, and the mouth is protected within Crooked Creek State Recreation Area, a recreational area that supports many passive uses and has high

visitation during the angling season. The culverts at this site are undersized and perched, preventing the movement of almost all juvenile salmonids and impacting stream channel processes.

The existing twin culverts may be hydraulically inadequate due to flow conditions seen during the 2002 floods. A bridge is likely required to provide a crossing that is hydraulically adequate and meets fish passage criteria, and other desired habitat enhancements benefiting injured species and services.

There is no active project to address this culvert at this time. An EVOSTC commitment of \$5 million at this time would be a catalyst to help leverage the additional \$5 million in match funding to eliminate the barrier and restore habitat connectivity. At the present time, NOAA Restoration Center has identified allocating \$100,000 for design work on Crooked Creek as a top priority for Alaska for strategic investment funding.

Project A	\$1,635,000
Project B	\$1,090,000
Project C	\$5,450,000
Total Project	\$8,175,000