## Coastal America Alaska Regional Implementation Team Partnership Projects for 2006-2007

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#### PROPOSED PROJECT FACT SHEET FORMAT

revised 6/5/06

The Alaska Regional Implementation Team (RIT) will review all proposed Coastal America projects and the be the

in Alaska – projects to conserve or restore coastal habitats and/or promote public awareness a education regarding coastal resources. Proposals may be submitted by any RIT member or t Corporate Wetlands Restoration Partnership (CWRP). Projects approved by the RIT will considered Coastal America projects and reported to the regional and national principals for t Coastal America partnership. The following information should be submitted for each proposal.
Date submitted:
Project name and location:
Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page):
Lead organization and contact information (please include phone number, email address, and project web site), including the Federal "sponsor" agency:
Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners:
What additional support (funding, services) is being requested for this project?
Potential for Corporate Wetlands Restoration Partnership involvement:
Potential aspects that could be done as a military Innovative Readiness Training exercise:
Potential for Coastal Ecosystem Learning Center (Alaska SeaLife Center) involvement:
Any other important information:

## **Chester Creek Aquatic Restoration**

Date submitted: June 9, 2006

Project name and location: Chester Creek Aquatic Restoration Project

Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page): The Municipality of Anchorage (MOA), in partnership with the US Corps of Engineers Alaska District, US Fish and Wildlife Service, National Oceanic and Atmospheric Administration, US Fish and Wildlife Service, Tesoro, ASIG, Alaska Water and Wastewater Utility, Alaska Departments of Fish & Game and Natural Resources, the Anchorage Waterways Council and others, is implementing an aquatic restoration project at the mouth of Chester Creek in Anchorage, Alaska.

The purpose of this project is to restore fish passage by replacing the old culverts with a new, much larger, culvert that will simulate a natural creek. The project will also restore estuarine habitat for smoltification, a natural process that occurs in juvenile salmon which develops their tolerance for salt water. This project is the fundamental first step in a longer term effort to address additional creek restoration within the Chester Creek watershed.

A dam was constructed in 1972 to create Westchester Lagoon. The outlet structure is a concrete weir with two 84-inch outlet pipes. A fish ladder was also constructed in an attempt to maintain salmon access to the creek. The culverts and fish ladder severely restricted fish passage and removed the opportunity for out-migrating juvenile salmon and returning adults to adjust to salinity changes when moving between the freshwater creek and salt water in Cook Inlet.

Currently, fish must find their way into submerged culverts accessible only at certain tide levels and then travel through several hundred feet of dark culvert to the lagoon. Once in the ladder, salmon must negotiate an 80-foot-long culvert at a 10 percent grade to gain 13 feet of elevation to reach the lagoon.

The new passage will be easier to access because it simulates a natural, day-lighted, freshwater creek. Also, young fish moving out to the ocean now abruptly encounter saltwater which has likely increased salmon mortality. The natural estuary conditions that will be created are vital to allow juveniles to slowly acclimate to saltwater before moving into the ocean.

This project will likely include improvements to portions of the existing bike trail in the project area and construction of public education and interpretation displays. A monitoring plan is also proposed to ensure successful revegetation of disturbed by construction.

**Benefits to Salmon/Salmon Fisheries/Salmon Fishers**: Fish passage barriers to salmon returning to Chester Creek will be removed resulting in several beneficial outcomes for salmon, the creek and the community. The recovery of naturally-occurring salmon to this watershed will be improved by removing this major blockage and increasing fish access to spawning habitat. Expected outcomes include:

- Increase the number of adult salmon that are able to enter the stream;
- Increase the survivability of juvenile out-migrating salmon; and
- Increase habitat units (HU) for Coho salmon from 385 HU to 17,508 HU (Source: Corps of Engineers EA 2005).

In addition, the Creek ecology will be improved as salmon transport critical energy and nutrients between the ocean and the creek. Flood hazard mitigation will be enhanced by the addition of a second weir and improved outfall at the lagoon. Additional community benefits include: increased awareness of salmon habitat and water quality needs, improved public understanding of additional restoration needs upstream, and increased salmon viewing and educational opportunities for residents and visitors.

**Schedule:** The Chester Creek Aquatic Ecosystem Restoration Project has two primary phases: Phase One includes utility relocation/partial channel construction on the Cook Inlet side of the railroad tracks. This phase begins in late July 2006 and will conclude by June 2007. Phase Two includes final fish passage engineering design and construction of fish passage improvements on the lagoon side of the railroad tracks. We anticipate that Phase II engineering work will begin in early Fall 2006, with construction beginning in summer of 2007 and completed by 2008.

**Lead organization and contact information:** The Municipality of Anchorage is leading this project, in close coordination with the partner groups mentioned above. Several City departments are involved in the effort. Project management is coordinated by the City's Project Management and Engineering Department (PM&E). Howard Holtan is the director of PM&E. This project is part of the City's "Salmon in the City" initiative managed by David Wigglesworth (907-343-7116). The Federal sponsor is the Fish and Wildlife Service (Ann Rappoport at 907-271-2787).

Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners: Project funds have been identified and programmed. Sources include: federal grant funds, Pacific Coastal Salmon Recovery Funds, mitigation funds, and bond funds.

What additional support (funding, services) is being requested for this project? t is too soon to respond to this particular question. Once the final design is prepared, we may identify additional funding needs for items including: interpretive signs, revegetation, trail enhancements or salmon viewing facilities.

**Potential for Corporate Wetlands Restoration Partnership involvement:** Additional assistance may be needed for constructing interpretive display and conducting post project monitoring and revegetation activities.

Potential aspects that could be done as a military Innovative Readiness Training exercise: None identified at this time.

Potential for Coastal Ecosystem Learning Center (SeaLife Center) involvement: Once completed, the area could serve as an outdoor classroom for student field trips. Students could learn about salmon biology, creek ecology, and salmon restoration.

Any other important information: This project is currently endorsed by Coastal America.

## **North Road Fish Passage**

Date submitted: April 13, 2006

**Project name and location:** North Road Fish Passage, Kenai Peninsula

Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page):

#### Narrative Project Description –

The Kenai Watershed Forum is working to improve 2 stream crossings, Leaf Creek and Bishop Creek, in need of restoration. The restoration work in this project has the support of the community and has been listed as a very high priority for restoration in the area.

#### **Leaf Creek Restoration**

Replacing the failed culvert in Leaf Creek will immediately open 2.7 miles of documented salmon habitat. It is likely that the actual habitat available is over 5 miles, but has yet to be documented as the stream has only been evaluated to the wilderness boundary of the Kenai National Wildlife Refuge. The site is remote and accurate documentation of salmon counts is lacking; however, we have personally witnessed more than 100 Coho Salmon blocked by the crushed culvert. It should be noted that during periods of high water, salmon can find their way around the failed pipe, but this is dependent on favorable high-water conditions. We have a 45-foot railroad flat car to use as a bridge at this location.

#### **Bishop Creek Restoration**

The culvert in Bishop Creek does not currently block fish passage, but is in the first stages of failing. The culvert has been kinked at its crown, due to the lack of overburden on the pipe. It has been our experience that once a culvert has been structurally compromised in this manner, complete failure soon follows. The pipe is sufficiently damaged that non-winter traffic is required to bypass the road/trail and cross through the creek. Such activity is illegal without a permit, but is routinely occurring at this location. As this site is much closer to populated areas, the traffic received at this crossing is much greater than at Leaf Creek. If this culvert were to fail to the point of blocking fish habitat, more than 20 miles of documented essential fish habitat would be cutoff. Financially it makes sense to address Bishop Creek and Leaf Creek together as they are in close proximity and the selected contractor could work on either depending on the access conditions. Ideally, we will find a bridge to cross at this location; however, with the proposed budget we are only able to commit to a larger culvert that will be installed properly. In the event that we can raise additional funds or receive a donated structure that can serve as a bridge we will pursue this, as it is our preferred option.

#### **Lead organization and contact information:**

This project is being conducted by the Kenai Watershed Forum (907-260-5449). Erika Ammann (907-271-5118) is coordinating for the National Marine Fisheries Service.

Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners:

2006 Partner Contributions: Fish Passage

ConocoPhillips: \$60,000

Kenai Watershed Forum: \$6,200

NMFS: The Kenai Watershed Forum has a national grant request in for \$55,000. Due to tight competition at the national level, this proposal may not receive funding or partial funding.

## What additional support (funding, services) is being requested for this project?

Total for project: \$121,000

Total requested: \$55,000 Breakdown of requested funds:

Personnel costs for Kenai Watershed Forum: \$9,950

Fringe benefits: \$2,400 Travel at site: \$2,980

\* 6 ATV rentals for 2 weeks \$1,500\* Supplies: GPS rental, office \$3,500

Contractual \$36,130

- \* front end loader with operator 5-6 days ~\$700-\$1,000 /day \*
- \* excavator with operator 5-6 days ~ \$700-\$1,000 /day \*

This project has in-hand a check from ConocoPhillips for \$60,000 and they require \$55,000, or equivalent services to complete the project.

#### **Potential for Corporate Wetlands Restoration Partnership involvement:**

Financial or in-kind support such as use of a mid-sized tracked backhoe shovel with a thumb bucket, a skidsteer, and a loader.

# Potential aspects that could be done as a military Innovative Readiness Training exercise: $N\!/\!A$

#### Potential for Coastal Ecosystem Learning Center (Alaska SeaLife Center) involvement:

The Kenai Watershed Forum conducts rigorous monitoring of there restoration projects. The methodology for gauging the success of restoration projects is currently in need of scientific analysis. Due to the high quality data collected by this organization this would be an opportunity to evaluate effectiveness of certain restoration tactics. In addition the Kenai Watershed Forum has great outreach activities such as willow plantings and reports on their activities in their publication *Currents*, there could be a possibility for partnership in these efforts.

<sup>\*</sup> indicates items within these budget categories that could be donated to reduce the request of \$55,000. If the front end loader and excavator were donated for 5-6 days of the project plus mobilization and demobilization it would reduce the price by ~ \$15,000 making the new need for \$40,000.

## Any other important information:

#### Partners:

U.S. Army corps of Engineers Environmental Protection Agency U.S. Fish and Wildlife Service Alaska Department of Natural Resources Kenai Peninsula Borough Alaska Department of Fish and Game National Park Service

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#### **Shorezone Coastal Mapping**

Date submitted: April 13, 2006

**Project name and location:** ShoreZone Coastal Mapping Project, Alaska Coast Wide, Current Focus

Southeast Alaska

Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page):

The ShoreZone mapping system has been in use since the early 1980s and has been applied to more than 40,000 km of shoreline in Washington and British Columbia. As of 2005, 16,000 km of shoreline has been imaged and mapped in south central and southeast Alaska through partnerships with other agencies and organizations. This standardized system catalogs both geomorphic and biological resources at mapping scales better than 1:10,000. The high resolution, attribute rich dataset is a useful tool for extrapolation of site data over broad spatial ranges and allows creation of a variety of habitat models. Results are being made available widely on a National Marine Fisheries Service hosted website. Low-tide-oblique aerial imagery sets this system apart from other mapping efforts. You can "fly" the coastline (by video), view still photos, and access biophysical data using the interactive ArcIMS website. This site will include more of Alaska's coastline as new data becomes available. This project has wide application for both marine and terrestrial resource managers, researchers, educators and the general public. As examples, fisheries managers have used the program to generate sand lance beach spawning habitat models, investigate sites of proposed development to assess potential impacts, and plan to model habitat suitability for the invasive European green crab for Washington, British Columbia and Alaska. There are many other applications, for instance, kayakers use the program to find appropriate haul outs for their trips.

#### **Lead organization and contact information:**

This effort in Alaska is being coordinated by K Koski of The Nature Conservancy (907-523-4929). Linda Shaw (907-586-7510) is coordinating for the National Marine Fisheries Service.

Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners:

2005 Partner Contributions: Mapping in northern southeast Alaska

Alaska Department of Natural Resources
National Marine Fisheries Service
U.S. Fish and Wildlife Service
Salk
National Park Service
Alaska Department of Fish and Game
\$250K
\$99.4K
\$31K
\$45K
\$45K

2006 Partner Contributions: Mapping in southern southeast Alaska

Alaska Department of Natural Resources \$250K (projected)

National Marine Fisheries Service \$150K

The goal of the ShoreZone project is to map the entire coast of Alaska. Additional partners could help make this goal a reality.

What additional support (funding, services) is being requested for this project?

#### **Potential for Corporate Wetlands Restoration Partnership involvement:**

Financial or in-kind support such as fuel, helicopter time, and vessel time.

#### Potential aspects that could be done as a military Innovative Readiness Training exercise:

The high resolution video and still imagery from this project could be used for photo reconnaissance in military exercises to identify beach access, navigational points and challenges, mission planning and target familiarization.

#### Potential for Coastal Ecosystem Learning Center (Alaska SeaLife Center) involvement:

Video and still imagery could be made available for students and visitors to "fly" and investigate.

#### Any other important information:

#### ShoreZone Partners:

Alaska Department of Natural Resources Alaska Department of Fish and Game Exxon Valdez Oil Spill Trustee Council National Park Service Cook Inlet RCAC PWS RCAC The Nature Conservancy U.S. Fish and Wildlife Service National Marine Fisheries Service

#### **Potential Partners:**

U.S. Forest Service U.S. Coast Guard

#### **Eroding Landfills Along the Coast of Alaska**

Date submitted: April 13, 2006.

**Project name and location:** Eroding landfills along the coast of Alaska.

Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page): See attached.

**Lead organization and contact information:** Alaska Department of Environmental Conservation, John Halverson [phone: 907-269-7545 email: john\_halverson@dec.state.ak.us]

Is any portion of the project already funded? If so, describe what has been funded and what more could be accomplished by adding monetary or in-kind support from additional partners: TBD

What additional support (funding, services) is being requested for this project? TBD

**Potential for Corporate Wetlands Restoration Partnership involvement:** Low--perhaps with logistics support, transportation, or finances.

Potential aspects that could be done as a military Innovative Readiness Training exercise: High, since several of the sites are fall under the Dept. of Defense jurisdiction and or were created by past military activities. The U.S. Army Corps of Engineers, U.S. Air Force and U.S. Navy are all involved. Military training could be used to provide logistical or other support.

Potential for Coastal Ecosystem Learning Center (Alaska SeaLife Center) involvement: None.

Any other important information: The Statement of Cooperation members are the: Environmental Protection Agency Region X, Alaska National Guard, Alaska Department of Environmental Conservation, Alaska Command/11th Air Force, U.S. Army Alaska, U.S. Coast Guard District 17, U.S. Navy Region Northwest, U.S. Department of the Interior, U.S. Amy Corps of Engineers, Defense Energy Supply Center Alaska, and Federal Aviation Administration.



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## **Statement of Cooperation Eroding Solid Waste Disposal Sites**

Federal agencies have played a major role in the development and history of Alaska. The State is strategically located with regard to national defense and has been home to many important military sites. Alaska is rich in natural resources, which has lead to significant exploration, mining and transportation activities. Federal agencies developed numerous defense installations, camps and facilities along coastal areas and rivers. Most such sites included one or more solid waste disposal sites. Due to climate change, erosion rates in parts of Alaska have significantly increased in recent years. Several of these disposal sites are now, or will become, subject to erosion. In response to a growing awareness of this problem, the Statement of Cooperation (SOC) Working Group has developed a plan to identify, prioritize, and respond to these sites.

SOC members advocate proper planning, assessment, monitoring and, when necessary, removal or remedial actions to minimize the potential for solid wastes or hazardous substances to erode into the environment. Upfront planning, monitoring and prioritization will reduce the potential for unanticipated, costly emergency response actions.

Erosion of solid or hazardous wastes into the environment creates pollution that may adversely impact people and ecological receptors. Eroding waste creates safety hazards and degrades the land and waters of Alaska. It may create violations of several federal and state environmental protection laws and regulations (Clean Water Act, Resource Conservation Recovery Act (RCRA), Alaska's Pollution and Oil and Hazardous Substance statutes and regulations, Solid Waste regulations, Water Quality regulations).

The SOC Working Group has developed, and agreed to maintain, an inventory/status report on erosion-prone solid waste disposal sites that are under the jurisdiction or responsibility of member agencies. The inventory will be updated annually. Site-specific information should be considered when evaluating disposal sites for erosion concerns. To the extent feasible, the types of waste disposed of and whether hazardous substances have been released should be determined. Erosion rates and trends need to be evaluated at individual sites.

Solid waste disposal sites that are eroding warrant immediate action (see below). Solid and hazardous wastes must be contained or removed to prevent uncontrolled discharge into the environment. Disposal sites where erosion is likely to occur within the next five to ten years should be assessed to verify disposal site boundaries, types of waste, and their estimated volumes. A plan for regular monitoring should be established. Funding for containment or removal actions should be programmed, as necessary.

#### **Eroding Disposal Sites:**

Air Force	<b>Corps of Engineers</b>	FAA	BLM
Barter Island	Amchitka	Skwentna	Camp Lonely
Bullen Point	Atka	Cape Yakataga	Feather River
Elmendorf LF04	Barrow Drum site	Moses Point	
Oliktok	Kogru		
Unalakleet	Unalakleet	Navy	
	Demarcation Bay	Point McIntyre	

#### **Resurrection Creek Restoration**

Date submitted: May 22, 2006

**Project name and location:** Youth Restoration Corps (YRC) Resurrection Creek Restoration Project

2006 (Phase II)

#### **Project Location:**

Kenai Peninsula in south central Alaska near Hope. Resurrection Creek is located in Sections 21 and 28 of T.9 N., R.2 W., S.M., and the portion of Palmer Creek in Section 21.

# Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page):

Historic hydraulic mining practices disconnected 161.2 square miles of Resurrection Valley watershed from its anadramous tributary of upper Cook Inlet, thus altering the critical ecological spawning and rearing habitats or five species of Pacific salmon. This project combines philanthropy efforts of the Youth Restoration Corps with state and federal resource agencies to restore one mile of Resurrection Creek back to its natural meandering pattern. This will include restoration of the salmon spawning substrate, associated pools, perennial side channels, and critical vegetative habitat that collectively make up the healthy riparian ecosystem of Resurrection Creek.

In 2005, Chugach National Forest completed 75% of the mechanical manipulation and grading of approximately 139,380 cubic yards of mine tailings on 40 acres of the project scope to recover the floodplain and redevelop a natural historical pattern of the creek's stream channel. Youth Restoration Corps 2006 activities will involve revegetation of 2.25 miles of main stem and side stream channel development and 52 acres of flood plain. Youth employed through the Youth Restoration Corps will plant native vegetation on approximately 26 acres of the project site. Upon completion of the revegetation program (expected by mid-July 2006), a scheduled watering plan will be started to help insure a high percentage of successful establishment of newly planted vegetation. Fall and spring stream monitoring programs will be started with area schools to further promote stewardship.

#### **Lead organization and contact information:**

Chugach National Forest Contact: Dean Davidson at 907-743-9537

Youth Restoration Corps Contact: Elvira Wolf at 907-262-1032 e mail: yrc@gci.net

# Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners:

Federal funding committed or pending from Chugach National Forest, Fish America Foundation, and National Forest Foundation. Non-federal funding/in-kind support received, committed or pending from Video Premiere Social, Earth Savers Inc., Bannerman Foundation, ConocoPhillips Alaska, BP Exploration (Alaska) Inc. via CWRP.

What additional support (funding, services) is being requested for this project?

## **Potential for Corporate Wetlands Restoration Partnership involvement:**

Funding, machinery, and vehicles.

## Potential aspects that could be done as a military training exercise:

None.

## Potential for Coastal Ecosystem Learning Center (Alaska SeaLife Center) involvement:

Fish habitat, youth involvement through Youth Restoration Corps.

## Any other important information:

This project was supported by CWRP in 2005.

## Matanuska-Susitna Basin Salmon Conservation Partnership Projects

Date submitted: June 9, 2006

Project name and location: Matanuska-Susitna Basin Salmon Conservation Partnership Projects,

Mat-Su Borough

Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page): [Also see the attached project description]

1) PROJECT TITLE: Big Beaver Lake/Wolf Road fish passage restoration: The Matanuska Susitna Borough, in partnership with the FWS, will replace an undersized 15 inch culvert with a properly placed 4 foot culvert and stream simulation to restore fish passage to this drainage on the Little Susitna River

**Accomplishment/Outcome:** 1.2 miles steam miles reopened to fish passage.

**Project Cost:** \$45,000

NFHI Funds Needed: \$5,000

**Partners:** USFWS, Matanuska Susitna Borough, NOAA, Alaska Department of Fish and Game, Wasilla Soil and Water Conservation District, The Nature Conservancy, and other members of the

Matanuska Susitna Basin Salmon Conservation Partnership.

**Estimated Completion Date:** October 2006

2) PROJECT TITLE: Dollar Lake/Tamarack Cove fish passage restoration: The Matanuska Susitna Borough, in partnership with the FWS, will replace an undersized 2 foot culvert with a properly placed 5 foot culvert and stream simulation to restore fish passage to this Big Lake drainage.

**Accomplishment/Outcome:** 0.2 stream miles plus 10 lake acres reopened to fish passage.

**Project Cost:** \$45,000

NFHI Funds Needed: \$5,000

**Partners:** USFWS, Matanuska Susitna Borough, NOAA, Alaska Department of Fish and Game, Wasilla Soil and Water Conservation District, The Nature Conservancy, and other members of the Matanuska Susitna Basin Salmon Conservation Partnership.

**Estimated Completion Date:** October 2006

3) PROJECT TITLE: Wasilla Creek Fish Passage Restoration: The Matanuska Susitna Borough, in partnership with the FWS and TNC, will replace an undersized 12.5 foot culvert at Lower Road with a 40 foot free span bridge. Design work will be initiated on two additional upstream barriers.

**Accomplishment/Outcome:** 26 stream miles reopened to fish passage.

**Project Cost:** \$100.000

NFHI Funds Needed: \$38,500

**Partners:** USFWS, Matanuska Susitna Borough, NOAA, Alaska Department of Fish and Game, Wasilla Soil and Water Conservation District, The Nature Conservancy, and other members of the

Matanuska Susitna Basin Salmon Conservation Partnership.

**Estimated Completion Date:** October 2006

4) PROJECT TITLE: Moose Creek fish passage restoration design and implementation: The 2006 work scope of this multiyear project involves restoring approximately 1,500 feet of Moose Creek to a stable dimension, pattern, and profile around a series of anthropogenic waterfalls. The waterfalls will be bypassed by re-aligning and re-constructing the channel and floodplain close to their historic location past railroad and mining activity, as well as keeping the active channel away from steep slopes. After the new channel is completed, fish passage will be dramatically improved to over nine miles of upstream habitat. In addition, a series of off-channel wetlands will be created and the adjacent streambanks will be revegetated with native plant species.

**Accomplishment/Outcome:** 1,500 feet of stream restored to its natural condition, access improved to over nine miles of anadromous fish spawning and rearing habitat.

**Project Cost:** ~ \$250,000. **NFHI Funds Needed:** \$45,000.

**Partners:** Chickaloon Village Traditional Council, USFWS, NOAA, BIA, NRCS, EPA, Palmer Soil and Water Conservation District, Matanuska-Susitna Borough, University of Alaska Anchorage, Alaska Department of Fish and Game, Alaska Department of Natural Resources, Alaska Railroad, and other members of the Matanuska Susitna Basin Salmon Conservation Partnership.

**Estimated Completion Date:** July 2006

5) Project Title: Alaska Forest Resources and Practices Act (FRPA) effectiveness monitoring in the Matanuska-Susitna Valley: Little monitoring has been done to determine the effectiveness of the FRPA's best management practices in protecting and maintaining water quality and fish habitat in the Matanuska-Susitna Valley (Mat-Su). Most of the work that has been done in Southcentral Alaska has focused on the Kenai Peninsula and its spruce bark beetle infestation. With the development of new markets for spruce and hardwood chips, timber harvesting in the Mat-Su is increasing at a greater rate than anywhere else in Alaska. The paucity of research on the effectiveness of FRPA in the Mat-Su is of concern because the area hosts a greater diversity of fish species, wider distribution of fish, more intense use of the fish populations, and higher productivity of fish streams, than other timber harvest regions of the State.

**Accomplishment/Outcome**: Through measurement of specified water quality and habitat parameters, determination of effectiveness of timber harvest best management practices, and identification of water quality standards exceedances, this project will complete an assessment of the effectiveness of FRPA in the Mat-Su Valley. An additional goal of the project is to design a template for monitoring water quality near timber harvest areas that will be applicable to other areas in the future.

**Project Cost**: \$100,000

NFHI Funds Needed: \$5.000

**Partners**: ADNR Division of Forestry, Office of Habitat Management and Permitting, Alaska Department of Environmental Conservation Non-Point Source Water Pollution Control, and other members of the Matanuska Susitna Basin Salmon Conservation Partnership.

**Estimated Completion Date**: 2007

#### **Lead organization and contact information:**

U.S. Fish and Wildlife Service (Mike Roy at 907-786-3925) in partnership with the National Marine Fisheries Service (Jeanne Hanson at 907-271-3029), Alaska Department of Fish and Game (Christopher Estes at 907-267-2142).

Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners: See above

What additional support (funding, services) is being requested for this project? See above.

Potential for Corporate Wetlands Restoration Partnership involvement: Yes.

Potential aspects that could be done as a military Innovative Readiness Training exercise: Unknown.

Potential for Coastal Ecosystem Learning Center (Alaska SeaLife Center) involvement: Unknown.

Any other important information:



# The Matanuska Susitna Basin Salmon Conservation Partnership

The Matanuska Susitna Basin Salmon Conservation Partnership formed to address increasing human use and development in the basin, one of the fastest growing regions in the country. The Mat-Su Basin includes 24,500 square miles in southcentral Alaska, roughly the combined size of Vermont, New Hampshire, and Massachusetts. The basin supports thriving populations of chinook, coho, sockeye, pink and chum salmon as well as world-class rainbow trout, char, and grayling making it one of the country's premiere sportfishing and wildlife viewing destinations. Rapid population growth and the accompanying pressures for development will increasingly challenge the ability of stakeholders to balance fish habitat conservation with these changes over time. Water quality, water quantity, and other fish habitat related conditions, including habitat fragmentation, are among some of the more important issues that will have to be addressed to maintain the amount and quality of fish habitat required to sustain fish productivity. While all fish stocks are managed for sustained yield and considered healthy, there is a need for responsible development of aquatic and riparian areas.

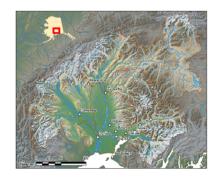
The Nature Conservancy (TNC), the Alaska Department of Fish & Game (ADF&G), and the U.S. Fish & Wildlife Service (USFWS) have taken the lead in an extensive partnership including among others, the Matanuska-Susitna Borough, a wide array of state agencies ranging from the Department of Commerce and Economic Development to the Department of Transportation, numerous federal agencies, and a variety of local businesses, community groups, and organizations, including three soil and water conservation districts. Current funding comes from the lead partners, the Laird Norton Foundation, the National Fish Habitat Initiative (NFHI), and in-kind contributions from other organizations.

Salmon and other fish species are at the heart of Alaskan ecosystems, economy, and culture. Conserving their habitat protects and contributes to our economy, our environment, and our way of life. *The Mat-Su Partnership's vision is healthy, vital, growing* 

communities and thriving fish and wildlife in the Mat-Su.

To accomplish this, the Mat-Su Partnership will complete an ecological assessment of Mat-Su watersheds and prioritize fish habitat conservation needs and projects in the basin. This prioritization will lead to protection, restoration and enhancement of key fish habitat. Projects may include revegetating damaged stream banks, creating fish-and-people-friendly fishing areas, removing barriers to fish passage, redeveloping and maintaining natural stream structure and flow, establishing cooperative conservation easements on essential habitat, and implementation of other effective fish habitat conservation actions. The Mat-Su Partnership will coordinate an outreach and education campaign, a knowledge base with other watershed efforts in Alaska and across the nation, and a network of volunteers, organizations, agencies and businesses working on watershed issues. The partnership has and will continue to leverage private and public funding for achieving these watershed and fish habitat conservation

While wild fish populations are threatened, endangered or extinct in many places in the United States, Alaska remains the country's best opportunity to conserve healthy fish populations and the habitat that sustains their productivity. The Mat-Su Partnership will provide a model for future efforts to extend the National Fish Habitat Initiative vision of healthy fish, healthy habitats, healthy people and healthy economies throughout Alaska through the Alaska Inland and Coastal Fish Habitat Initiatives.



For more information on the Mat-Su Partnership, please contact:

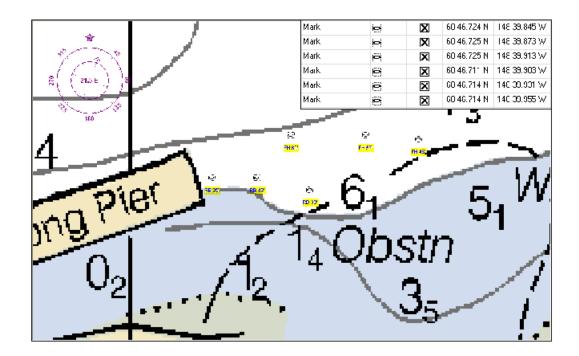
- Corinne Smith, The Nature Conservancy, 907-276-3133, Corinne Smith@tnc.org
- Michael Roy, USFWS, 907-786-3925, Michael\_Roy@fws.gov
- Christopher Estes, ADF&G, 907-267-2142, Christopher Estes@fishgame.state.ak.us

#### **Artificial Reef near Whittier**

Date submitted: June 5, 2006

Project name and location: Artificial Reef as a Restoration/Mitigation Tool for Alaska Coastal

Waters. Located in Whittier, Alaska.



# Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page):

The project is designed to assess the effectiveness of artificial reef structures to enhance fish habitat in a nearshore marine ecosystem. Prince William Sound is an important site for commercial, subsistence, and recreational fish harvest. The community of Whittier lies adjacent to the artificial reef location and serves as a port destination for the Alaska Marine Highway ferry system, cargo vessels, cruise ships, and commercial fishing vessels. As a recreational destination for Anchorage residents, cruise ships, and seasonal tourists, the coastal habitats adjacent to Whittier are increasingly stressed. Additionally, as economic growth and development continues in Whittier, marine coastal habitat is altered by a variety of development activities such as harbor development, dredge and fill operations, sheet-pile dock structures, and log transfer facilities. These development activities alter the function of pristine marine coastal habitats principally by the removal, alteration, or elimination of existing living habitat structure including rocky reefs and aquatic vegetation.

In spring 2006, NMFS installed Alaska's first artificial reef near Whittier in western Prince William Sound. A reef of 90 each of Fish Havens and Reef Balls was deployed in three paired patches on a declining slope (15-20m depth) over a mixed soft and hard sediment substrate. The primary purpose of this pilot project is to evaluate the reef's potential as a fish habitat enhancement tool in sub-Arctic marine waters. The artificial reef will also serve as a recreational dive site and a living laboratory for education/outreach.

The close proximity of the artificial reef site to the port of Whittier will provide a test of efficacy of artificial reefs to enhance productivity and restore natural fish habitat in a nearshore ecosystem under a combination of recreational and developmental pressure. Project results will provide knowledge and direction for management of future restoration efforts in Alaskan coastal communities experiencing similar developmental and recreational pressures.

#### **Lead organization and contact information:**

Brian Lance, National Marine Fisheries Service, Alaska Region, Anchorage Field Office, Habitat Conservation Division, Brian.Lance@noaa.gov, (907)271-1301 and Erika Ammann, Habitat Restoration Office, Erika.Ammann@noaa.gov, (907)271-5118.

Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners: Initial funds for the implementation of the project (i.e. purchase and installation of the artificial reefs) were secured from NMFS through funds from the Essential Fish Habitat program (\$37,000) and a grant from the NOAA Restoration Center (\$10,000).

Funds for the 2006 Monitoring Program are through USFWS Coastal Program (\$33,000) with a match by the Prince William Sound Science Center (\$25,000) and the University of Southern Alabama (logistical support).

What additional support (funding, services) is being requested for this project?

#### **Potential for Corporate Wetland Restoration Partnership program involvement:**

Additional funding for development and implementation of the program could lend itself to corporate involvement. For example ideas such as initiating an "adopt a reef" program could be explored.

Potential aspects that could be done as a military Innovative Readiness Training exercise: Any aspects of Dive training (for monitoring purposes), or underwater monitoring using ROVs or sonar might be applicable.

#### Potential for Coastal Ecosystem Learning Center (Alaska SeaLife Center) involvement:

There are extensive opportunities for involvement by the Alaska SeaLife Center. Initial contact has been made with Dana Sitzler Education Director for the Alaska SeaLife Center (ASLC) and Ron Goertz ASLC Outreach Education Specialist. Also there have been discussions with Marilyn Sigman of the Alaska Center for Coastal Studies, Kate Alexander Education/Outreach Specialist at Prince William Sound Science Center, Shoo Salasky of the Chugach School District and Director of Youth Area Watch, and Jeff Clay science teacher at Whittier School.

## Any other important information:

## **Next Steps**

Additional monitoring - The monitoring program is scheduled for 5 years; years 1 and 2 will be carried out by a graduate student with assistance from NMFS, and years 3-5 by NMFS at a reduced level. The graduate student is only funded for the first year. Funding is still needed for year 2. There is also the potential to extend the study with further questions generated from the first two years of data collection and analysis. If warranted, a second grad student could be recruited to dig deeper into questions such as complexity of artificial reef habitat as it relates to species diversity/numbers, juvenile fish use, in particular rock fish.

<u>Education/Outreach</u> - Development of an Alaska nearshore marine ecology curriculum using rocky reef habitats as a model, and our artificial reef site as a living laboratory. In short, students would do internet research on the ecology of reefs in general, conservation issues, mitigation/restoration (AR), Alaskan rocky reefs and our state's fisheries, our AR, and then design/build reef modules to deploy and monitor. Students could also access our data, study the scientific method...hypothesis testing, replicates, sample size...etc. They would use these skills to build hypotheses and predictions regarding the design of their module.

#### **Salmon in the City**

Date submitted: June 9, 2006

**Project name and location:** Salmon in the City – a sustainable salmon stewardship initiative in

Anchorage, Alaska.

Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page): The Municipality of Anchorage, in partnership with local, state, and federal agencies, is implementing The *Salmon in the City* stewardship initiative. *Salmon in the City* is designed to: 1) improve the public understanding of actions residents can do to achieve salmon sustainability in Anchorage, 2) build strong public support for rejuvenating and maintaining local salmon populations, 3) enhance resident and visitor fishing and recreation experiences and 4) demonstrate City leadership in the protection and the restoration of salmon resources in Anchorage. Key project sponsors and supporters include: Alaska Departments of Fish and Game and Natural Resources, Kachemak Bay Research Reserve, NOAA, FWS, Waterways Council, and EPA.

Interpretation outreach is an exceptional resource management tool and is proven to positively influence public awareness and attitudes. The importance of public engagement cannot be understated, and it is absolutely necessary for building support for local salmon restoration projects. An informed public, inspired to partner with federal, state and local agencies and community groups, is central to accomplishing the strategic salmon sustainability goals of the Pacific Coastal Salmon Recovery Fund.

The initiative currently targets the Chester, Ship and Campbell Creeks Watersheds and has two primary work components – taking advantage of well-established outreach strategies having a history of success. The first component produces the tools and materials necessary to deliver salmon habitat and outreach programs. The second component executes sustainable salmon community outreach, interpretation, and visibility events, in partnership with local residents, businesses, and state and federal resource agencies

The first component will increase the capacity of the Municipality of Anchorage to sustain salmon at all life stages by producing the tools and the partnerships necessary to deliver the *Salmon in the City*<sup>TM</sup> message and outreach services. Component activities include:

- Task #1: Salmon in the City TM branding through production of logo and outreach materials.
- Task #2: Mobile outreach displays to be used at community and other visibility events.

Task #3: Salmon Habitat/Stewardship Awareness Video PSAs are being produced and will be used during public presentations and made available to ADFG public information staff, science classrooms and other teachers to augment their natural science lesson plans. The video productions will also be posted on the *Salmon in the City* website and made available to post on other websites and distributed to news and other media outlets.

Task #4: Salmon in the City Website design.

Task #5: Salmon in the City Public Awareness Poll to help create a baseline indicator for community understanding of and attitudes toward urban salmon issues. The City will incorporate survey results into future outreach activities.

The second component of this initiative focuses on conducting outreach and visibility events. Achieving salmon stewardship in Anchorage requires that the message be repeated frequently, highly visible and inoculated into local organizations, institutions and popular community events. Work plan Component Two builds upon the products developed under work plan Component One. Activities described below focus on "getting the word out" through a series of visibility events and strategic sponsorships. All activities will drive residents to existing web-based information about Alaska salmon and opportunities to get involved in the City's efforts. Public support for sustainable salmon recovery efforts will be enhanced as these efforts create a community of sustainable salmon stewards. This type of outreach is critical, given that close to 50% of Alaska's population base resides within the Municipality of Anchorage. Component activities include:

Task #1: Neighborhood Sustainable Salmon Seminar Series: Using the mobile outreach display and other materials produced under work plan Component One, the Municipality of Anchorage Creeks Community Development Manager is working with the City's Watershed Division and other departments to organize and facilitate presentations to community councils or other requesting organizations within the Anchorage Bowl.

Task #2: Campbell Creek Interpretive Trail: Interpretation is a proven technique for influencing behavior and attitudes among people of all ages. The Campbell Creek Watershed provides an excellent venue for increasing public understanding of the relationship between salmon, water quality and a healthy and vibrant community. Consistent with the goals and objectives of the Pacific Coastal Sustainable Salmon Restoration Fund, this interpretation program aims to improve public understanding of the impacts on salmon sustainability, build community stewardship of the Campbell Creek Watershed and increase public awareness of the creek's salmon and other natural, family, and economic benefits. The interpretation products produced under this task will be transferable to Ship and Chester creeks, helping to reduce production costs of the salmon restoration and outreach displays for these creeks.

The Campbell Creek greenbelt has 19 trailheads and four fish viewing platforms (currently without interpretation information). Users include, local residents and families, students, resource agencies, nature-based tour operators, local outing groups, military personnel, to name just a few. Resources agencies currently incorporate part of the trail into annual salmon and fishery education programs with the Anchorage School District.

Recognizing that Campbell Creek has both time-sensitive public awareness needs and enormous outreach potential, a collaborative effort was initiated in 2005 to prepare a bold vision for the Campbell Creek Interpretive Trail. This partnership includes the Anchorage Waterways Council, the Municipality of Anchorage, US Fish and Wildlife Service, National Park Service, Alaska Department of Natural Resources and the Alaska Department of Fish and Game.

The multi-stakeholder team produced a comprehensive interpretation plan for Campbell Creek. Based upon the recommendations of the interagency team, a successful program requires a total of up to 17

single-panel displays needed, in addition to three (3) 3-way trailhead "anchor" displays. Provided below is a summary of the panel themes and subject matter. The City is currently working with a planning team to design the displays.

Task #3: The goals of the Pacific Coastal Sustainable Salmon Recovery Fund and City's salmon restoration program can be leveraged through strategic sponsorship of high profile and community supported events. By inoculating the sustainable salmon message into these public venues, the MOA will increase the visibility of salmon restoration and stewardship in our community and strengthen sustainable salmon partnerships. Under this task the City intends to sponsor community salmon celebrations, youth-centered activities, and salmon stewardship matching grants to facilitate homeowner/community group involvement in salmon stewardship and outreach activities.

**Benefits to Salmon/Salmon Fisheries/Salmon Fishers:** Pacific salmon at all life stages will benefit from the work plan described herein. Aspects of the work plan will result in direct improvements to riparian salmon habitat. Other aspects of the work plan will increase public understanding and awareness of impediments to fish passage and actions local residents can take to become stewards of our salmon resources. A larger constituency of educated and informed residents will be created resulting in greater public support for salmon enhancement and restoration activities within the City.

**Lead organization and contact information:** Municipality of Anchorage (David Wigglesworth at 907-343-7116).

Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners: Funding for outreach displays, initial website design, video PSAs and design and manufacture of interpretive panels has been secured. Sources include: federal grant funds and Pacific Coastal Salmon Recovery Funds.

What additional support (funding and services) is being requested for this project? Additional support will be requested for the following activities: Salmon celebration sponsorships, construction of interpretive trail signs, promotion and outreach activities (e.g. newspaper ads, bus sign displays) website upgrades and video PSA reproduction.

**Potential for Corporate Wetlands Restoration Partnership involvement:** Assistance with installation of interpretive signs and salmon celebration sponsorships. In-kind support to assist homeowners with installation of rain gardens, streambank restoration, and other actions to reduce stormwater impacts from residential property along the target creeks.

Potential aspects that could be done as a military Innovative Readiness Training exercise: None identified at this time.

**Potential for Coastal Ecosystem Learning Center (SeaLife Center) involvement:** Sea Life Center could display outreach materials, show video PSAs, and incorporate the Campbell Creek Interpretive trail into student field trips and other outdoor classroom events. Students could learn about salmon biology, creek ecology, and salmon restoration.

Any other important information: None at this time.

## **Ship Creek Fishing Access and Stream Bank Rehabilitation**

Date submitted: June 9, 2006

**Project name and location:** Ship Creek Fishing Access and Stream Bank Rehabilitation

Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page): The Municipality of Anchorage (MOA), in partnership with the US Corps of Engineers Alaska District, US Fish and Wildlife Service, National Oceanic and Atmospheric Administration, EPA, Anchorage Waterways Council, US Fish and Wildlife Service, Tesoro, ASIG, Alaska Water and Wastewater Utility, and Alaska Departments of Fish & Game and Natural Resources, Alaska Railroad, area businesses, is implementing the Ship Creek Fishing Access and Bank Rehabilitation project. This project complements previous restoration work on Ship Creek which resulted in the removal of significant fish passage barriers at the mouth of Ship Creek.

The goal of this effort is to improve fishing access and restore stream bank sections that are eroding due to bank trampling and other causes. The project area for implementation of the subject access and restoration improvements is the approximately ¼ mile section of the creek between the new bridge site at Ship Creek Point and the KAPP Dam. Currently, there exists significant inter-agency cooperation and communication with respect to this project.

The City hired HDR Consultants to prepare a design study to assist with the planning, design, and permitting of angler and restoration improvements so project activities mesh with long term salmon restoration goals for the study area.

Benefits to Salmon/Salmon Fisheries/Salmon Fishers: Ship Creek offers a unique fishing experience just short distance from the City's downtown center. It is one of the most heavily fished creeks in the state of the Alaska – with over 40,000 angler hours recorded in 2004. A significant fish passage barrier to returning salmon has been removed and has altered the fishing experience along the creek – necessitating a closer look at fishing access. This project will ensure safe angler enjoyment of the creek, while implementing practical and low maintenance access and bank restoration improvements. There are substantial community benefits including: increased awareness of salmon habitat and water quality needs, improved public understanding of stream bank restoration techniques, and enhanced salmon viewing and other educational opportunities for residents and visitors.

**Schedule:** A draft design study has been prepared. Public comment has been solicited, including an agency on-site walkthrough of the project area. We anticipate construction of selected improvements beginning in the fall of 2006.

**Lead organization and contact information:** The Municipality of Anchorage is leading this project, in close coordination with the partner groups mentioned above. Several City departments are involved in the effort. Project management is coordinated by the City's Project Management and Engineering

Department (PM&E). Howard Holtan is the director of PM&E. This project is part of the City's Salmon in the City initiative, managed by David Wigglesworth at 907-343-7116).

Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners: A portion of the project funds have been identified and programmed. Sources include: Fish and Wildlife Service and Pacific Coastal Salmon Recovery Funds.

What additional support (funding and services) is being requested for this project? The final design study will likely identify several individual access and restoration projects, totaling several hundred thousand dollars. We will be seeking additional private and public sector support to construct any unfunded individual projects.

**Potential for Corporate Wetlands Restoration Partnership involvement:** Additional assistance may be needed for constructing interpretive displays and bank restoration projects.

Potential aspects that could be done as a military Innovative Readiness Training exercise: None identified at this time.

Potential for Coastal Ecosystem Learning Center (SeaLife Center) involvement: Once completed, the area could serve as an outdoor classroom for student field trips. Students could learn about salmon biology, creek ecology, and salmon restoration.

Any other important information:

Little Campbell Creek: Creating a model for cooperation in retaining functionality and human use for an urban stream

Date submitted: October 26, 2006

**Project name and location:** Anchorage, Alaska.

Brief description (proposed activities, coastal habitats and/or species affected, anticipated benefits, cost if known, etc. – not to exceed one page):

Little Campbell Creek is an urban stream with multiple users and ecological benefits. Although urban the stream is currently functional as fisheries habitat. Recent fish kills after high water event triggered a response heralded by the Anchorage Waterways Council that this precious resource may be at risk. Following this USFW sponsored an in-depth study of LCC identifying areas in need of restoration as well as identifying current and future threats to LCC (Schroder USFWS 2005). Faced with the possibility of losing a precious resource to the city of Anchorage the municipality organized meeting with all interested parties, federal agencies, state agencies and non-profits for information sharing on the creek. This initial meeting created a LCC working group which will henceforth be referred to as the LCC Partnership. Members are listed below and individual supporters are not listed to reduce redundancy.

It was determined that more than stop-gap measures were necessary for LCC as well as the other creeks in Alaska. Fish kills in LCC, illustrated that the current methods of doing business in Anchorage were killing our creeks, and changes were necessary to retain functionality in our creeks while also accommodating growing populations and industry in the city. While this proposal focuses on LCC it the work performed on this creek will serve as a model for cooperative work on all creeks in Anchorage. LCC is ideal as a first attempt at cooperative action for several reasons:

- Little Campbell Creek is relatively small
- Extensive study of the creek already existed
- Urgency of fish kills in the creek needed to be addressed

Simultaneous efforts on LCC focus on restoration, description of current status of habitat and functionality, protection, and future planning. Due to the many activities occurring on the creek a high degree of communication is necessary between all active participants and has resulted in many partners working together on strict timelines and determining priority actions.

#### **Work Being Accomplished to Date Includes:**

**LCC** Watershed Plan: The municipality of Anchorage is spearheading efforts to create a watershed plan for Little Campbell creek. This plan will be used by the Muni to assess development action in the LCC watershed. The watershed plan is being written by the LCC Partnership. **Lead organization and contact information:** Municipality of Anchorage (David Wigglesworth at 907-343-7116).

**Outreach and education:** Anchorage Waterways Council is performing educational outreach regarding LCC through a grant from USFWS. **Lead organization and contact information:** Anchorage Watershed Council (Holly Kent, 907 272-7335)

November 30, 2006

**Restoration:** Using prioritized restoration sites (Schroder USFWS 2005) AWC is currently conducting in stream restoration at Spring Street and Eastwood sites using a NOAA/NFWF grant. **Lead organization and contact information: Anchorage Watershed Council** (Holly Kent, 907 272-7335)

#### **Protection:**

Water Quality/Quantity Monitoring: Water monitoring conducted by Anchorage Waterways Council's CEMP (Citizen's Environmental Monitoring Program). This program will monitor water quality at specific sites. Professional lab analysis of LCC samples is also being conducted at high and low water volume regimes.

Multiple Stream gauges installed by Fish and Game and monitored by AWC. Discharge measurements recorded to create a baseline volume for LCC.

Pre and post restoration water quality and quantity measurements conducted by AWC at restoration sites. **Lead organization and contact information: Anchorage Watershed Council** (Holly Kent, 907 272-7335)

**Great Land Trust Land Acquisition:** Prioritized parcels along or affecting functionality of LCC are being purchased by GLT and managed by the municipality of Anchorage. Outright purchases and easements arte currently undergoing negotiation along the creek as well as initial efforts to purchase easements on the Campbell Creek estuary. **Lead organization and contact information: Great Land Trust** (David Mitchell, 907 278-4998)

**COHO Project:** Data collection on habitat, macroinvertebrate populations, and fish populations in representative segments of LCC will be extrapolated and presented to the LCC Partnership to aid in knowledge about the creek as well as the effects of differing industry, and residential areas on the functionality of the stream. This project was funded by NOAA to MOA with match provided in staff time by FWS, DNR and AWC. **Lead organization and contact information:** (Jeff Urbanus 907 343-8023)

Is any portion of the project already funded? If so, describe what has been funded, by whom, and what more could be accomplished by adding monetary or in-kind support from additional partners: Funding for outreach displays, initial website design, community meeting organization and presentations, video PSAs and design and manufacture of interpretive panels has been secured. Sources include: federal grant funds and Pacific Coastal Salmon Recovery Funds.

What additional support (funding and services) is being requested for this project? Additional support will be requested for the following activities: Salmon celebration sponsorships, construction of interpretive trail signs, promotion and outreach activities (e.g. newspaper ads, bus sign displays) website upgrades and video PSA reproduction. Funding for securing of land parcels to Great Land Trust and aid to AWC in restoration projects. Funding for restoration project development. Priority restoration sites were identified in Schroeder 2005 but work is needed by consultants to determine appropriate restoration action.

**Potential for Corporate Wetlands Restoration Partnership involvement:** Assistance with installation of interpretive signs and salmon celebration sponsorships. In-kind support to assist homeowners with installation of rain gardens, streambank restoration, and other actions to reduce stormwater impacts from residential property along the target creeks.

Potential aspects that could be done as a military Innovative Readiness Training exercise: None identified at this time.

**Potential for Coastal Ecosystem Learning Center (SeaLife Center) involvement:** Sea Life Center could display outreach materials, show video PSAs, and incorporate the Campbell Creek Interpretive trail into student field trips and other outdoor classroom events. Students could learn about salmon biology, creek ecology, and salmon restoration.

#### Any other important information:

LCC Partnership; USFW, NOAA, Municipality of Anchorage, ACOE, AWC, DNR, ADF&G, NRCS, EPA, USGS, GLT