

Agency: Department of Fish and Game**Project Title:****Project Type: Other**

Kachemak Bay National Estuarine Research Reserve

State Funding Requested: \$175,000**House District: Kenai Areawide (28-30)**

Future Funding May Be Requested

Brief Project Description:

The Kachemak Bay National Estuarine Research Reserve (KBRR) integrates coastal and nearshore research and education. The mission of KBRR is research and education to enhance understanding and appreciation of the Kachemak Bay estuary, Cook Inlet and adjacent anadromous salmon-bearing waters to ensure that these ecosystems remain healthy and productive.

Funding Plan:

| | |
|-------------------------------|--------------------|
| Total Project Cost: | \$175,000 |
| Funding Already Secured: | (\$0) |
| FY2015 State Funding Request: | <u>(\$175,000)</u> |
| Project Deficit: | \$0 |

*Funding Details:**Funding for this program was previously in the Operating Budget***Detailed Project Description and Justification:**

The Kachemak Bay National Estuarine Research Reserve (KBRR) integrates coastal and nearshore research and education at its headquarters in Homer, Alaska. KBRR was designated in 1999 and became part of the National Estuarine Research Reserve system--a national network of 28 estuary-based reserves that participate in long-term monitoring, research, education, and coastal stewardship. The mission of KBRR is research and education to enhance understanding and appreciation of the Kachemak Bay estuary, Cook Inlet and adjacent anadromous salmon-bearing waters to ensure that these ecosystems remain healthy and productive.

As an estuary, Kachemak Bay is a protected bay where freshwater streams, glacial meltwater, and tidally driven ocean waters merge. The Reserve's 372,000 acres offer a unique ecosystem where an abundance of marine plants, birds, fish, and other aquatic organisms thrive.

KBRR staff transfer watershed and coastal science to local communities, coastal decision-makers, and school groups through professional training and education programs. Many KBRR projects are in direct relationship to understanding primary causes of ailing salmon returns in the Cook Inlet Region and watersheds. Staff and associates of the Reserve have collected and processed necessary data and published many documents assisting in the understanding of various salmon-bearing stream issues in the Cook Inlet Area. Examples of publications over the past two years are included below:
Title: Estuarine Environments as Rearing Habitats for Juvenile Coho Salmon in Contrasting South-Central Alaska Watersheds

Authors: Hoem Neher TD, Rosenberger AE, Zimmerman CE, Walker CM, Baird SJ

Date of Publication: September 2013

Journal: Transactions of the American Fisheries Society

Title: Use of Glacial River-fed Estuary Channels by Juvenile Coho Salmon: Transitional or Rearing Habitats?

Authors: Hoem Neher TD, Rosenberger AE, Zimmerman CE, Walker CM, Baird SJ

Date of Publication: October 2013

Journal: Environmental Biology of Fishes

Title: Seasonal persistence of marine-derived nutrients in south-central Alaskan salmon streams

Authors: Rinella D, Wiplfi M, Stricker C, Walker C, Heintz R.

Date of Publication: October 2013

Journal: Ecosphere

Title: Controls on Temperature in Salmonid-Bearing Headwater Streams in Two Common Geomorphic Settings, Kenai Peninsula, Alaska

Authors: Callahan M, Rains M, Bellino J, Walker C, Baird S, Whigham D, King R.

Date Submitted for Publication: September 2013

Journal: Journal of the American Water Resources Association

Title: Allochthonous inputs from grass-dominated wetlands support juvenile salmonids in headwater streams: evidence from stable isotopes of carbon, hydrogen, and nitrogen

Authors: Dekar MP, King RS, Back JA, Walker CM, Whigham DF, Walker CM.

Date of Publication: December 2012

Journal: Freshwater Sciences

Title: Catchment topography and wetland geomorphology drive macroinvertebrate community structure and juvenile salmonid distributions in south-central Alaska headwater streams

Authors: King RS, Walker CM, Whigham DF, Baird SJ, Back JA

Date of Publication: April 2012

Journal: Freshwater Sciences

Title: Landscape and Wetland Influences on Headwater Stream Chemistry in the Kenai Lowlands, Alaska

Authors: Walker CM, King RS, Whigham DF, Baird SJ

Date of Publication: February 2012

Journal: Wetlands

Title: Multiple Scales of Influence on Wetland Vegetation Associated with Headwater Streams in Alaska, USA

Authors: Whigham DF, Walker CM, King RS, Baird SJ

Date of Publication: February 2012

Journal: Wetlands

The FY2015 \$175,000 funding is imperative in the direct support of the operational, educational and research activities at the KBRR. The funding provides the basis for significant Federal NOAA matching funds required to ensure that ADF&G has adequate financial resources to meet ADF&G and NOAA MOU objectives as outlined below:

ADF&G, as the principal contact for the State of Alaska in all matters concerning the Reserve, will be responsible for ensuring that the Reserve complies with management objectives of the Plan, other applicable provisions of Alaska law, and the federal regulations of the National Estuarine Research Reserve System (NERRS). ADF&G will be the grant receiving office for KBRR. Subject to available and authorized appropriations, ADF&G's responsibilities for Plan implementation include the following:

1. Annually apply for, budget, and allocate funds received for KBRR operations (e.g. education, research, and monitoring programs), as well as for acquisition and facilities;

2. Conduct active research and monitoring programs that draw scientists from various institutions to work together on understanding coastal issues;
3. Conduct and maintain programs that provide materials, activities, workshops, and conferences that translate the research results to the resource users, regulators, and the public;
4. Provide staff and volunteers to monitor, protect, educate, and translate research results;
5. Maintain facilities including a research laboratory, classroom, library, office, meeting space, field equipment storage, and interpretive display space;
6. Maintain equipment to facilitate research and outreach activities that, among other things, will include boats, laboratory and field equipment, audiovisual, curriculum, reference materials, and databases;
7. Maintain effective partnerships with local, regional, and state policy makers, regulators, and the general public;
8. Serve as principal representative on issues involving proposed boundary changes and/or updates to the Plan;
9. Respond to NOAA's requests for information and evaluation findings;
10. Expend funds in accordance with federal and state laws, KBRR Management Plan, and annual appropriations; and,
11. Ensure enforcement of the applicable provisions of Alaska law to protect the Research Reserve.
12. Other appropriate funding resource needs as outlined by the KBRR.

Project Timeline:

FY 15

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Alaska Department of Fish & Game

Grant Recipient Contact Information:

Name: Charlie Swanton
 Title: Director of Sport Fish
 Address: P.O. Box 115526
 Juneau, Alaska 99811
 Phone Number: (907)465-6184
 Email: Charles.Swanton@alaska.gov

Has this project been through a public review process at the local level and is it a community priority? Yes No

For use by Co-chair Staff Only:

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