Final Evaluation Findings

Kachemak Bay National Estuarine Research Reserve

February 1999 – May 2003

Office of Ocean and Coastal Resource Management
National Ocean Service
National Oceanic and Atmospheric Administration

TABLE OF CONTENTS

I. Overview 3

II. Program Review Procedures 4

A. Overview
B. Document Review and Issue Development
C. Site Visit to Alaska

III. Reserve Site Description 6

IV. Reserve Administration. 7

V. Accomplishments, Review Findings and Recommendations . . .8

A. Management and Administration
B. Facilities
C. Reserve Council
D. Management Plan
E. Education Program
F. Research and Monitoring Program
G. Community Outreach and Partnerships

VI. Conclusion 18

VII. Appendices 19

Appendix A. Persons and Institutions Contacted
Appendix B. Persons Attending the Public Meeting
Appendix C. Response to Written Comments
Appendix D. Summary Table of Accomplishments
Appendix E. Summary Table of Recommendations

I. OVERVIEW

The Coastal Zone Management Act (CZMA) of 1972, as amended, established the National Estuarine Research Reserve System. Sections 312 and 315 of the CZMA require the National Oceanic and Atmospheric Administration (NOAA) to conduct periodic performance reviews or evaluations of federally approved National Estuarine Research Reserves. The first evaluation of the Kachemak Bay National Estuarine Research Reserve (KBNERR) examined the operation and management of the reserve since its designation in February 1999 through May 2003. The Alaska Department of Fish and Game (DFG) administers KBNERR.

This document describes the evaluation findings of the Director of NOAA's Office of Ocean and Coastal Resource Management with respect to KBNERR during the review period. The fundamental conclusion of this evaluation of KBNERR is that DFG is successfully implementing and enforcing its federally approved National Estuarine Research Reserve. The recommendations made by this evaluation appear in boxes and follow the relevant section of findings. Two types of recommendations are possible: (1) **Necessary Actions** address programmatic requirements and *must* be implemented by the indicated date; and (2) **Program Suggestions** describe actions that NOAA believes DFG should take to improve the program but that are not currently mandatory. Program Suggestions that are reiterated in consecutive evaluations due to continuing problems may be elevated to Necessary Actions. If no dates are indicated, DFG is expected to address the recommendations by the time of the next §312 evaluation, which will occur approximately three years following the release of the final evaluation findings. This document contains five Program Suggestions and two Necessary Actions. NOAA will consider the findings made by this evaluation when making future financial award decisions regarding KBNERR.

II. PROGRAM REVIEW PROCEDURES

A. OVERVIEW

NOAA began its review of KBNERR in March 2003. The §312 evaluation process involves four distinct components:

- An initial document review and identification of specific issues of particular concern;
- A site visit to Alaska including interviews and a public meeting;
- Development of draft evaluation findings; and
- Preparation of the final evaluation findings, partly based on comments from the state regarding the content and timetables of Necessary Actions specified in the draft document.

B. DOCUMENT REVIEW AND ISSUE DEVELOPMENT

The evaluation team reviewed a wide variety of documents prior to the site visit, including: (1) the federally approved Environmental Impact Statement and program documents; (2) financial assistance awards and work products; (3) semi-annual performance reports; (4) official correspondence; and (5) relevant publications on natural resource management issues in Alaska.

Based on this review and on discussions with the Office of Ocean and Coastal Resource Management's (OCRM) Estuarine Reserves Division, the evaluation team identified the following priority issues:

- Major accomplishments during the review period;
- Status of the reserve's general administration, including grants, fiscal management and staffing;
- Status of facilities development and future facility transition;
- Process for Management Plan revision;
- Reserve role at local level and integration with partners; and
- Status of research, education and stewardship programs, including local and system-wide initiatives.

C. SITE VISIT TO ALASKA

Notification of the scheduled evaluation was sent to DFG, KBNERR, relevant federal environmental agencies, members of Alaska's Congressional Delegation and regional newspapers. In addition, a notice of NOAA's "Intent to Evaluate" was published in the *Federal Register* on March 21, 2003.

The site visit to Alaska was conducted on June 2 – 6, 2003. Ms. Rosemarie McKeeby, Evaluation Team Leader, OCRM National Policy and Evaluation Division; Ms. Erica Seiden, KBNERR Specialist, OCRM Estuarine Reserves Division; and Dr. William Reay, Program Director, Chesapeake Bay National Estuarine Research Reserve – Virginia, formed the evaluation team.

During the site visit, the evaluation team interviewed KBNERR staff, senior DFG and other state officials, federal agency representatives, coastal researchers, environmental educators, civic group representatives and private citizens. Appendix A lists people and institutions contacted during this review.

As required by the CZMA, NOAA held an advertised public meeting on June 4, 2003, at 6:00 p.m., at KBNERR, Alaska Department of Fish and Game, 2181 Kachemak Drive, Homer, Alaska. The public meeting gave members of the general public the opportunity to express their opinions about the overall operation and management of KBNERR. Appendix B lists individuals who registered at the meeting. Appendix C contains NOAA's response to written comments received.

The crucial support of KBNERR staff with the logistics and planning of the site visit is gratefully acknowledged.

III. RESERVE SITE DESCRIPTION

Kachemak Bay is one of the most productive and diverse estuaries in Alaska and features tidal mudflats, marshlands and upland forests. The southern shore includes the Kenai Mountains, which contain several glaciers that drain directly into the bay. Kachemak Bay is 24 miles wide at its mouth and approximately 36 miles long. The bay is a temperate region fjord with hydrographic conditions unique among National Estuarine Research Reserve System (NERRS) estuaries. A ten-meter tide range primarily drives the bay's circulation, and ocean currents within the Gulf of Alaska result in upwelling of nutrient rich waters. This nutrient-rich environment provides critical habitat for many species during various life phases.

KBNERR is located south of Anchorage on the western coast of the Kenai Peninsula and is the largest reserve in the reserve system. The lands within KBNERR are entirely in public ownership and are managed by various local, state and federal entities. Three legislatively designated areas are included within the reserve: (1) Kachemak Bay Critical Habitat Area, (2) Fox River Flats Critical Habitat Area, and (3) the portion of Kachemak Bay State Park that drains into Kachemak Bay (Figure 1). These designations provide the strongest resource protection afforded by Alaska. Current uses include boating, fishing, hunting, shellfish harvesting, mariculture and a variety of recreational activities such as sightseeing and hiking. Traditional uses permitted by state and federal agencies include commercial and recreational fishing and limited livestock grazing.

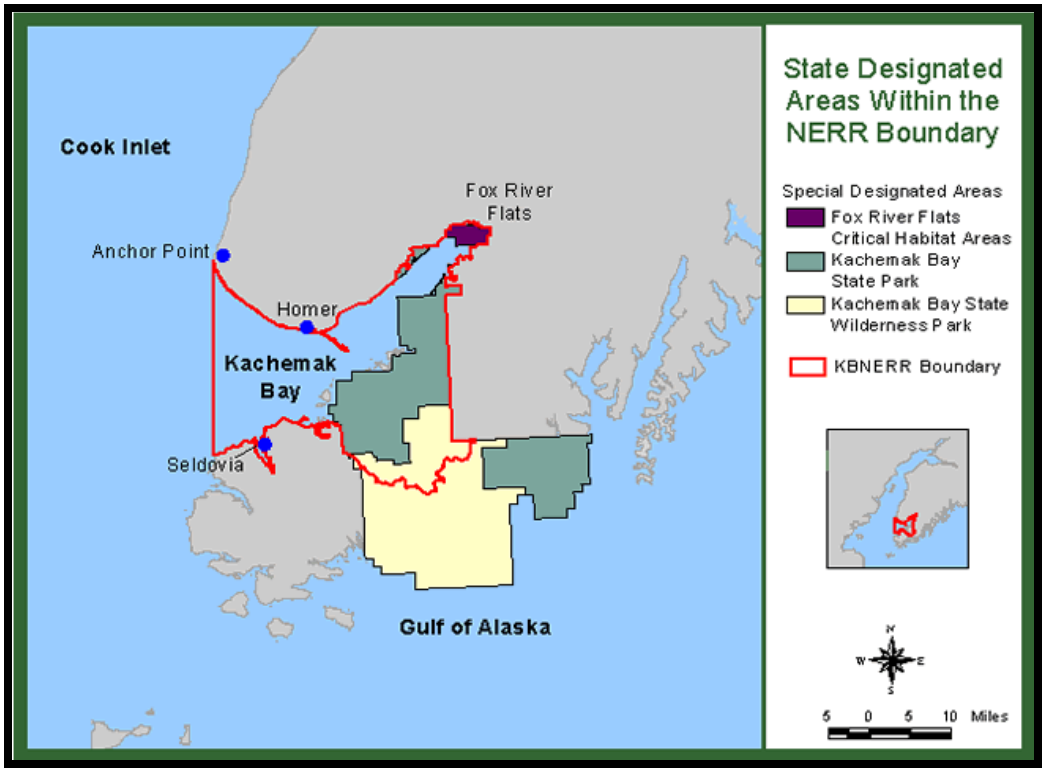

Figure 1. State designated areas within KBNERR's boundary.

IV. RESERVE ADMINISTRATION

NOAA designated KBNERR in 1999 as the 23rd reserve in the National Estuarine Research Reserve System. DFG's Habitat and Restoration Division administered the reserve from the time of designation until late 2002. The Department then dissolved the Habitat and Restoration Division, and DFG's Sport Fish Division currently administers the reserve. The Sport Fish Division's responsibilities include conserving self-perpetuating populations of fish, managing sport fisheries in both salt and fresh water, and hatchery production and release of fish for sport fishing.

KBNERR's mission is to develop and implement research and education programs that enhance understanding of the Kachemak Bay estuary and thus to help ensure that the bay remains healthy and productive. Inherent in this mission is the obligation that such programs provide information that coastal managers and the public can use to guide land use and resource decisions in the bay's watershed. The reserve's operational goal is to promote and develop non-regulatory approaches to natural resource management in the Kachemak Bay watershed.

The reserve's research goals are: (1) to increase knowledge of the biological, physical, chemical, geological, cultural and socioeconomic components of the Kachemak Bay ecosystem; (2) to encourage projects in the reserve that will streamline scientific efforts, maximize efficient use of funds, and avoid duplication; and (3) to promote informed resource decisions by generating relevant information and providing it to the public and natural resource decision-makers.

KBNERR's education goals are: (1) to promote citizen and community awareness, participation and support for KBNERR; (2) to facilitate and supplement estuarine education, interpretation and outreach in Kachemak Bay; and (3) to promote informed decisions about natural resources and human uses in the region.

IV. ACCOMPLISHMENTS, REVIEW FINDINGS AND RECOMMENDATIONS

A. MANAGEMENT AND ADMINISTRATION

Several serious issues associated with the management and administration of KBNERR must be addressed. KBNERR is a partnership between NOAA and the State of Alaska. As such, NOAA provides 70 percent of the reserve's annual operations budget with the understanding that the state will match NOAA's contribution with the remaining 30 percent. Initially following KBNERR's designation, DFG contributed a portion of the match to support staff at the reserve. However, state cash match for the reserve declined to nearly zero during the review period. Consequently, KBNERR has had to turn to other funding sources to secure the matching funds required for the annual NOAA operations grant. This situation has had a significant negative impact on both the reserve's staff and programs. Research and education staff have been contributing time far in excess of standard working hours to prepare grant applications to supply the necessary match and to meet the associated obligations of those grants. Managing the reserve in this manner has placed an unnecessary burden on the staff and has compromised the reserve's ability to meet the expectations of the community.

#1 – NECESSARY ACTION: DFG and reserve management must work together to develop alternative methods of addressing current financial shortfalls at KBNERR. Within one month of receipt of final evaluation findings, KBNERR must submit to NOAA an FY 04 financial plan detailing all sources of match. Updates to the plan will be described in KBNERR's semi-annual performance reports.

Because KBNERR supplements NOAA operations funds and supports reserve staff with outside grant funding, there are numerous funding mechanisms that require tracking throughout the year. Since the reserve's designation, KBNERR has used the Alaska State Accounting System (AKSAS) for financial tracking. The AKSAS, used by all Alaska state agencies, has been used to track and manage project expenditures and to produce monthly reports. The reports were shared with reserve project management staff on a quarterly basis. Recently, new administrative staff at the reserve created a grants tracking mechanism to follow all funding from each source, including NOAA's operations and facilities grants. In order to better manage its programs, the reserve is making an effort to track all tasks and associated costs monthly. Administrative staff also have inventoried training opportunities and are planning training for all reserve staff on state administrative and financial procedures. NOAA applauds these efforts. Given the complexity of KBNERR's budget and the very unstable financial situation in evidence at the time of the site visit, improved financial management at the reserve is of paramount importance. Therefore, NOAA urges KBNERR to continue enhanced monthly tracking of grants and expenditures. NOAA also encourages KBNERR to continue to offer financial training for staff as appropriate.

In order to receive NOAA operations and facilities grants, KBNERR must submit the appropriate grant application to NOAA by a predetermined deadline. Due to the great number of grants received by NOAA's Grants Management Division, it is critical that

grants are received on time to ensure that the funding will be awarded by the requested start date. KBNERR's grant applications often were submitted late during the review period. Upon receipt of a NOAA operations or facilities grant, the reserve is required to submit semi-annual performance reports describing the status of each grant task. During the review period, KBNERR's performance reports were often submitted late, and periodically were poorly written.

#2 – NECESSARY ACTION: Upon receipt of final evaluation findings, KBNERR must begin submitting complete grant applications and semi-annual performance reports to NOAA on time.

During the site visit, the evaluation team repeatedly saw evidence that the reserve lacks strong leadership and that little proactive decision-making is occurring. For example, reserve management has not undertaken comprehensive planning to stabilize the reserve's financial situation. Reserve staff were routinely hired without sufficient funds to support them, but they were not told that they would be expected to support part or all of their salaries. Regular reserve staff meetings began only recently and as a result of staff insistence. Staff also requested a retreat in late 2002. Little follow-up has ensued and results have yet to be realized. Additionally, the evaluation team was distressed to learn that reserve staff feel that management does not respect them. Reserve staff also have noted poor communication from management and among staff. These problems have led to very low staff morale. Strong leadership from reserve management is needed to resolve these issues and to create an environment in which the potential of KBNERR can be realized.

#3 – PROGRAM SUGGESTION: NOAA strongly urges DFG and reserve management to work together to address the current lack of leadership at the reserve. Reserve management should begin proactive, transparent decision-making and planning for KBNERR's future. Thorough and respectful communication between reserve management and staff as well as among staff is absolutely critical. NOAA requests that specific actions that have been taken to address leadership issues at the reserve, particularly related to staff and financial management, be detailed and updated in KBNERR's semi-annual performance reports.

B. FACILITIES

KBNERR staff have been located at their existing office facility overlooking Mud Bay since December 2000. During construction of the facility, special care was taken to retain natural vegetation, protect against bluff erosion, and monitor nearby nesting bald eagles. The 4,879 square foot modular building features office space, meeting rooms and an eight-person capacity bunkhouse complete with laundry and cooking facilities. Since KBNERR's open house in March 2001, the local community has used the modular building often. The facility has been used for education workshops, science seminars, staff training sessions, public and partner agency meetings, as well as accommodations for visiting graduate students, workshop participants and researchers.

In June 2000, KBNERR purchased a 1,500 square foot storage and workshop facility to address the reserve's immediate and future needs for lab, storage, program staging and workshop space. During the past three years, the facility has been refurbished and expanded three times to accommodate reserve program needs. The facility currently includes a small office, functional lab space with a fume hood, storage for research and education equipment and materials, a separate workshop, and a large carport to store the reserve's two boats.

The reserve has partnered with the U.S. Fish and Wildlife Service (USFWS) to construct a 37,000 square foot joint headquarters with space for administration and support offices, research laboratories, classrooms, an auditorium and public interpretation and education displays. The facility is known as the Alaska Islands and Ocean Visitor Center (AIOVC) and will support up to 70 staff members, employees and volunteers.

The evolution of the AIOVC began in 1991, with a congressional appropriation of $3.3 million for the purchase of land and the initial planning for the headquarters, seabird exhibit, and interpretive facility for the USFWS's Alaska Maritime National Wildlife Refuge (AMNWR). During the next three years, the funds were expended to purchase a 60.5-acre building site in the Beluga Slough area near Homer, to hire a contractor, and to complete an environmental assessment. Remaining funds for the facility were rescinded in 1995, and the project was put on hold due to insufficient funding. As efforts moved forward to develop a National Estuarine Research Reserve in Alaska, discussions began about a potential AMNWR/KBNERR joint facility. With the completion of the Final Environmental Impact Statement/Final Management Plan in 1999, a joint facility was identified as the preferred alternative to meet the reserve's primary facility needs. Between 1999 and 2002, full funding to construct and furnish the joint facility was obtained. The facility was funded partly by NOAA and the Department of the Interior through congressionally directed funds totaling more than $18 million. While most of the funds were provided without a state match requirement, Alaska provided nearly $2 million in in-kind match through the purchase of intertidal wetlands within the reserve with *Exxon Valdez* oil spill restoration funds. At the time of the site visit, the AIOVC was scheduled for completion in late 2003.

The AIOVC clearly is an excellent facility that will enhance KBNERR's visibility. The facility also will provide a platform for regional estuarine science and interpretation. However, the transition to the new building will be very difficult for the reserve. KBNERR's operating costs for the current modular facility are approximately $20,000 annually. Estimates of the reserve's share of the AIOVC operating costs are approximately $110,000 annually. As described in Section IV-A, the state is experiencing a financial crisis and has been slowly reducing funding for the reserve to near zero. The projected major increase in facility operating costs while the state is reducing financial support coupled with little planning on the part of reserve management as to how staff and the facility would be funded has created an untenable financial situation and has resulted in undue strain on reserve staff. Further complicating the transition to AIOVC, a substantial disconnect exists between the community's perception of what the AIOVC means for the reserve's programs and the financial reality of the

reserve's transition to the new facility. The community fully expects that reserve staff will offer many more products and services once located in the new building.

NOAA is concerned that the associated operating costs will be too high for the reserve to sustain on federal funds alone, particularly given the other funding issues described above. Furthermore, decisions must be made regarding future ownership and use of the reserve's existing modular facility. The state owns the permanent modular building, and the Alaska Department of Transportation is leasing the property to DFG for a 35-year term. Uses stipulated in the lease include office, research and education program space, storage, living quarters and vehicle parking. The building was designed for conversion to a bunkhouse.

#4 – PROGRAM SUGGESTION: NOAA strongly encourages DFG to work cooperatively with both KBNERR and NOAA to explore all options regarding future ownership and use of the reserve's existing modular facility.

C. RESERVE COUNCIL

During KBNERR's designation process, the reserve and the local community envisioned continued citizen involvement in the development of reserve programs. KBNERR has organized a Reserve Council to provide an organized structure for substantive and meaningful dialogue and recommendations among reserve staff, agencies, local governments, researchers, environmental educators, conservation groups and others interested in natural science research and education.

The Reserve Council Charter was developed as a collaborative effort with the community in 2001. The Charter outlines the Council's structure, roles, member selection, terms and basic operations. One of the Council's roles is to provide recommendations to KBNERR on its research and education programs, including: (1) recommending priority research and monitoring needs, including those that are locally relevant; (2) recommending priority education and interpretive needs, including those that are locally relevant; (3) identifying opportunities for collaboration; (4) advising on research and education facilities; and (5) annually reviewing reserve programs. The Council also serves as an advocacy group for KBNERR.

In January 2002, nine Council members representing diverse interests and perspectives were selected from a broad group of applicants. The U.S. Environmental Protection Agency (USEPA), USFWS, the Alaska Department of Governmental Coordination, DFG, the Alaska Department of Natural Resources, the Alaska Department of Environmental Conservation and the Kenai Peninsula Borough appointed eight representatives to the Council. The community representatives are voting members, and the agency representatives are non-voting members. The first Council meeting was held in April 2002.

Since the Council's first meeting, it has organized a research committee and an education committee. Additionally, the Council has convened an outreach working group and a

non-profit working group. One of the outreach working group's tasks has been to educate the state legislature about KBNERR. The working group also has focused on promoting the reserve to the community, regional partners and state partners.

While the community was concerned that it took two years from the reserve's designation to establish the Council, members are now pleased with its mission, organization and charter. NOAA commends KBNERR for its role in the development of the Reserve Council. NOAA also encourages KBNERR to continue working in conjunction with the Council to provide an organized forum for community input to and dialogue with the reserve.

D. MANAGEMENT PLAN

Reserve management plans are used to guide reserve operations and to provide the basic framework for all reserve activities, including research, monitoring, education, and outreach. During KBNERR's designation process, the reserve was required to prepare a Final Environmental Impact Statement, which serves as the management plan for the first five years of operation. NERRS regulations call for management plans to be updated every five years. KBNERR's revised management plan, reflecting the reserve's vision and strategy for the next five years, is due in 2004. At the time of the evaluation site visit, no process for revising the management plan had been developed, and no funds had been directed to this mandatory task.

#5 – PROGRAM SUGGESTION: NOAA strongly encourages KBNERR to develop a detailed process and timeline for revising its management plan by July 2004. Updates on the management plan revision's progress should be described in KBNERR's semi-annual performance reports.

E. EDUCATION PROGRAM

Since KBNERR's designation in 1999, the reserve has developed a strong Education Program. The reserve envisions that the program will serve as a regional education center and clearinghouse, in partnership with local education institutions, to promote excellence in environmental education, interpretation and outreach in marine, estuarine and watershed ecology. KBNERR's education goals are: (1) to promote citizen and community awareness, participation and support for KBNERR; (2) to facilitate and supplement estuarine education, interpretation and outreach in Kachemak Bay; and (3) to promote informed decisions about natural resources and human uses in the region. Aligned with the reserve's education goals, the Education Program's activities have focused on increasing public awareness, understanding and stewardship of the bay's wetlands and watershed, as well as disseminating research findings to resource managers, legislators and other coastal decision-makers.

Given that there are approximately ten environmental nonprofit organizations in the Kachemak Bay area, KBNERR's Education Program has a significant challenge finding a niche in Homer. The reserve collaborates with many of these organizations and strives to

minimize duplication of effort. In order to ensure that each organization is informed about the others' environmental education efforts in Homer, the Kachemak Bay Environmental Education Alliance was created in 2000. The Alliance's mission is to educate and inspire individuals and the Kachemak Bay community to actively participate as integral elements of a sustainable ecosystem through environmental and natural resources stewardship. The Alliance's goals include: (1) promoting environmental and natural resources education; (2) identifying and utilizing existing sites, facilities, programs and personnel; (3) promoting collaboration, cooperation and networking of environmental education groups; (4) using and engaging current and future technology for developing and disseminating information; and (5) seeking funding and support to provide for sustainable programs. One of the Alliance's first projects was developing a matrix of educational programming in the community. NOAA commends KBNERR for its participation in the Alliance.

Two primary focus areas for KBNERR's Education Program during the review period have been coastal decision-maker workshops and the Coastal Training Program (CTP). As required by the reserve's operations grant, the Education Program has conducted a minimum of three coastal decision-maker workshops annually. These workshops focus on coastal issues important to decision-makers such as permit officers, planners, land managers and ecotourism operators. The Education Program also has been preparing to launch the CTP, which is a system-wide initiative that provides current scientific information and skill-building opportunities to coastal decision-makers. CTP will target a range of audiences, including land-use planners, elected officials, regulators, developers, community groups, environmental non-profits, businesses and applied science groups. The reserve has completed the required market analysis, needs assessment and program strategy necessary to implement the program. The reserve plans to use the CTP to provide a permanent forum for addressing priority issues affecting the coastal and marine resources of Kachemak Bay and the Kenai Peninsula. KBNERR's CTP was developed in partnership with DFG, the Alaska Coastal Management Program, and the Alaska Sea Grant Marine Advisory Program. NOAA applauds KBNERR for its progress in developing the CTP and encourages the reserve to launch the program in the near future.

KBNERR offers a variety of both formal and informal education programs to the community. The reserve hosts a number of science programs for K-12 students and provides teacher training and support for local schools. The Education Program also conducts GLOBE teacher training workshops and other classes for educators in Homer. KBNERR has participated in a high school mentoring program in which students have an opportunity to contribute to reserve programs and activities. The Education Program also teaches Elderhostel participants about salt marsh ecology, marine mammals and many other coastal topics. NOAA commends KBNERR for the variety of formal and informal educational opportunities it offers to the community.

KBNERR's Education Program also has an excellent outreach component. For example, the reserve publishes biweekly "Bay Science" articles in the *Homer News* about research conducted in Kachemak Bay. KBNERR also distributes a reserve newsletter and gives

seminars to high school and community groups about coastal topics and reserve activities. Additionally, the reserve hosts outreach activities for annual events including Coastweek, Estuaries Day and the Shorebird Festival. NOAA applauds KBNERR's outreach activities and encourages it to expand the reserve's outreach component as practicable.

F. RESEARCH AND MONITORING PROGRAM

KBNERR has an active Research and Monitoring Program and envisions itself becoming a leading research facility for the Lower Cook Inlet and surrounding Gulf of Alaska waters. The program boundaries (see Figure 2) extend to the east as far as the Pye Islands in Kenai Fjords National Park, to the south as far as Shuyak Island in the Kodiak Archipelago, to the west across Shelikof Strait and Cook Inlet, and to the north as far as Kenai. The Research and Monitoring Program's mission is to better understand natural and anthropogenic processes occurring in the Gulf of Alaska with particular emphasis on Lower Cook Inlet and Kachemak Bay. Its objective is to develop a long-term coastal ocean observing program. To achieve this objective, the Research and Monitoring Program employs a combination of approaches, including: (1) collaborating with universities, state and federal agencies and nonprofits to deploy and maintain remote sensing instruments; (2) encouraging other groups and individuals to conduct research within the reserve; and (3) pursuing partnerships and funding opportunities for research projects relevant to regional and reserve needs. As a sentinel site for the region, KBNERR can serve a vital function by providing the scientific and management communities with consistent long-term datasets. For example, establishing regional oceanographic boundary conditions can provide data for: (1) predictive circulation models, (2) a baseline for change detection, and (3) understanding the ecological linkages and rates of exchange between coastal waters and the Gulf of Alaska.

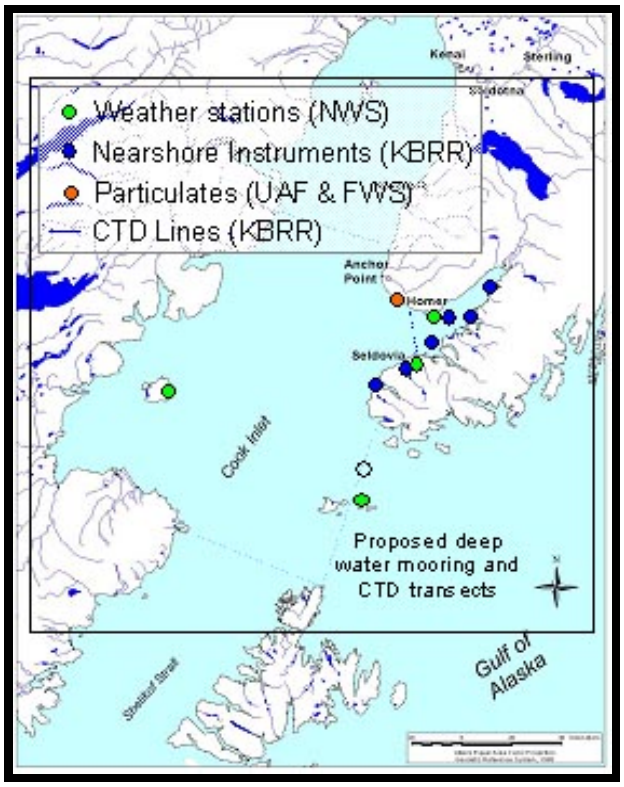

Figure 2. KBNERR's Lower Cook Inlet Coastal Ocean Observing Program

As part of the reserve's objective to build a long-term coastal ocean observing program, the Research and Monitoring Program is establishing a coastal observing system for the Homer area. The Alaska Ocean Observing System includes Kodiak, Homer, Seward, Cordova, Yakatat and Glacier Bay. The reserve is working with the National Data Buoy Center, the Federal Aviation Administration, the Natural Resources Conservation Service, the University of Alaska Fairbanks, the United States Geologic Survey and NOAA to bring together data to characterize the physical dynamics of the Kachemak Bay system and external waters. NOAA applauds KBNERR's work to establish a coastal observing system in the Homer area and encourages the reserve to continue such efforts.

KBNERR is monitoring water quality as part of the System-wide Monitoring Program (SWMP). The goal of SWMP is to identify and track short-term variability and long-term changes in the integrity and biodiversity of representative estuarine ecosystems and coastal watersheds. In July 2001, KBNERR deployed dataloggers on ferry docks in Homer and Seldovia. The dataloggers measure water temperature, salinity, specific conductivity, pH, dissolved oxygen, turbidity, fluorescence and depth. The reserve is also measuring surface and subsurface photosynthetically active radiation at the Seldovia site. Data are relayed in real-time to KBNERR. The reserve plans to deploy two additional dataloggers at Homer and Seldovia to monitor along a vertical gradient in order to study change from tidal fluctuations. Four additional dataloggers are mounted on moorings anchored in ten meters of water at: (1) Port Graham to monitor the most marine endpoint of the outer Kachemak Bay flow regime; (2) the Herring Islands to monitor the estuarine endpoint of the outer bay; (3) Halibut Cove to monitor the marine endpoint of the inner bay; and (4) Bear Cove at the head of the bay. Larval collectors,

growth rate experiments, surface temperature loggers and bottom light meters are attached to each mooring. The Research and Monitoring Program generates basic statistical summaries monthly and produces time series plots for each deployment. KBNERR also collects required weather data from the reserve's meteorological station in Homer. NOAA commends KBNERR for successfully implementing SWMP and for submitting all data to the Centralized Data Management Office.

The Research and Monitoring Program also has met the NERRS requirement to develop a site profile. The reserve recently produced an ecological characterization that synthesizes information on the biological communities, physical environment and human resource uses in the bay and its watershed for resource managers, educators, researchers and interested citizens. The characterization was produced in partnership with NOAA's Coastal Services Center in CD-ROM format. The reserve also plans to distribute hard copies of the characterization, which NOAA encourages. NOAA congratulates KBNERR on completion of this important project.

KBNERR has created "Wetland Functions in the Landscape," a Web-based watershed tool that provides information to coastal decision-makers about the functions of wetlands and streams. The tool also allows users to conduct high-resolution analysis to support improved decision-making regarding land use. The reserve hopes that this product will spawn efforts to formalize a watershed program and promote wise use of coastal resources. NOAA applauds KBNERR for development of this tool and encourages the reserve to contribute to efforts to formalize a watershed program as practicable.

The reserve, in collaboration with local partners, organized the Kachemak Bay Science Conference "Patterns and Significance of Environmental Change in Kachemak Bay and the North Pacific Ocean" in April 2002. The conference provided an opportunity to share research about detecting and understanding the long-term changes in environmental systems and to explore the connectivity among Kachemak Bay, Cook Inlet, the Gulf of Alaska and the North Pacific Ocean. Speakers tended to be researchers; however, the conference did include a session that focused on the perspectives of individuals from the surrounding native villages. More than 400 people attended the conference. NOAA commends KBNERR for its role in organizing the Kachemak Bay Science Conference.

G. COMMUNITY OUTREACH AND PARTNERSHIPS

As described in Section V-E, approximately ten environmental nonprofit organizations exist in Homer, and each one is trying to offer unique programming and to complement the others' efforts. KBNERR coordinates with several of the environmental organizations in the community. The evaluation team met with a number of local partners, including staff from the Pratt Museum, the Center for Alaskan Coastal Studies, the University of Alaska at Anchorage – Homer Campus, and the Cook Inlet Keeper. Additionally, the evaluation team met with regional partners including representatives from USEPA, the Cook Inlet Regional Advisory Council (CIRAC), and the University of Alaska at Fairbanks.

Common themes arose from the meetings with local and regional organizations and agencies. KBNERR seems to have relatively good working relationships with its many partners. However, the community partners' expectations often appear to be higher than the capacity of the reserve staff to accommodate them. Several partners made a clear distinction between coordination and collaboration and emphasized the importance of the latter. While organizations generally would like to work more collaboratively with KBNERR, the reserve staff feel that they have been overtaxed attempting to bring in funds to the reserve to the extent that they cannot fully participate with community partners.

#6 – PROGRAM SUGGESTION: NOAA encourages KBNERR to explore options for closer collaboration with community partners once the outstanding financial issues at the reserve have been addressed.

The regional partners noted that it has been easy to work with reserve staff. Accessing reserve data has been relatively straightforward and has contributed to good decision-making. For example, the reserve will work with USEPA to hold a workshop for local policy makers about coastal processes. This effort will benefit the entire Kenai Peninsula. KBNERR has worked with CIRAC to promote "ShoreZone," a system for mapping coastal areas, and has interest in developing it into a statewide program. University oceanographers and other research scientists have found that the coordinated monitoring system in Kachemak Bay is greatly assisting their research needs. This appears to have started a resurgence of interest in conducting research in the bay. NOAA commends KBNERR for its work with its regional partners.

Native Alaskan villages such as Port Graham, Nanwalek and Seldovia are a major component of the reserve's surrounding community. These villages recognize natural resources as an integral part of their traditional and cultural heritage. They also rely on these resources for subsistence hunting, fishing and food gathering. Therefore, the Native Alaskan villages are greatly concerned about the health of their environment and natural resources and wish to protect them. The reserve's CTP Market Analysis reported that based on survey respondents' comments, Native Alaskan communities are one of the audiences with the highest opportunity for additional training and education on coastal topics and issues. During the site visit, several partners expressed hope that KBNERR would intensify its efforts to reach the Native Alaskan communities through both education and research. Given these factors, outreach to and collaboration with Native Alaskan villages is a very important role for the reserve.

#7 – PROGRAM SUGGESTION: NOAA strongly encourages KBNERR to expand its efforts to reach local Native Alaskan communities through both education and research to the greatest extent practicable.

VI. CONCLUSION

For the reasons stated herein, I find that Alaska is adhering to the programmatic requirements of the National Estuarine Research Reserve System in its operation of the approved Kachemak Bay National Estuarine Research Reserve.

These evaluation findings contain seven recommendations. These recommendations are in the form of two Necessary Actions and five Program Suggestions. The state must address the Necessary Actions by the date indicated. The Program Suggestions should be addressed before the next regularly scheduled program evaluation, but they are not mandatory at this time. Program Suggestions that must be repeated in subsequent evaluations may be elevated to Necessary Actions. Summary tables of program accomplishments and recommendations are provided in Appendices D and E.

This is a programmatic evaluation of KBNERR that may have implications regarding the state's financial assistance awards. However, it does not make any judgment on or replace any financial audits related to the allowability or allocability of any costs incurred.

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Eldon Hout Date
Director

VII. APPENDICES

APPENDIX A. PERSONS AND INSTITUTIONS CONTACTED

Kachemak Bay National Estuarine Research Reserve Representatives

Name	Title	Affiliation
Amy Alderfer	Lead Administrative Support	KBNERR
Steve Baird	GIS and Web Support	KBNERR
Kim Donohue	Administrative Support	KBNERR
Carmen Field	Formal Education	KBNERR
Rick Foster	CTP Coordinator	KBNERR
Scott Pegau	Principal Investigator, Oceanography	KBNERR
Carl Schoch	Research Coordinator	KBNERR
Glenn Seaman	Manager	KBNERR
Terry Thompson	Education Coordinator	KBNERR
Coowe Walker	Watershed Council Coordinator	KBNERR

State of Alaska Representatives

Name	Title	Affiliation
Kelly Hepler	Sport Fish Division Director	Alaska Department of Fish and Game
Ted Otis	Reserve Council Member	Alaska Department of Fish and Game
Doug Vincent-Lang	Sport Fish Division Assistant Director	Alaska Department of Fish and Game

Federal Agency Representatives

Name	Title	Affiliation
Ann Morkill		Alaska Maritime National Wildlife Refuge, U.S. Fish and Wildlife Service
Melonie Shipman	Education Specialist	Alaska Maritime National Wildlife Refuge, U.S. Fish and Wildlife Service
Gregg Siekaniec	Refuge Manager	Alaska Maritime National Wildlife Refuge, U.S. Fish and Wildlife Service
Phil North		U.S. Environmental Protection Agency
Sheri Delasilva		U.S. Fish and Wildlife Service
John Harris		U.S. Fish and Wildlife Service

Local Government Representatives

Name	Title	Affiliation
Jack Cushing	Mayor	City of Homer
Derotha Ferraro	Executive Director	City of Homer Chamber of Commerce
Dan Bevington	Coastal District Coordinator	Kenai Peninsula Borough
Susan Saupe	Director of Science and Research	Cook Inlet Regional Citizens Advisory Council

Community Representatives

Name	Title	Affiliation
Daisy Lee Bitter	Reserve Council Member	Retired Educator
Will Files	Reserve Council Member	Retired Educator
Philip Chelsky	Resident	City of Seldovia
Savannah Lewis	Resident	City of Seldovia
Steve Lewis	Reserve Council Member	City of Seldovia
Walter McInnis		Seldovia Oil Spill Response Team
Susan Mumma	Resident	City of Seldovia
Dick Wyland	Mayor	City of Seldovia

Academic Representatives

Name	Title	Affiliation
Charles Hocutt	Assistant Dean	University of Alaska at Fairbanks, School of Fisheries and Ocean Sciences
Steve Okkonen	Adjunct Professor	University of Alaska at Fairbanks
Carol Swartz	Director, Kachemak Bay Campus	University of Alaska at Anchorage, Kenai Peninsula College

Nongovernmental Organization Representatives

Name	Title	Affiliation
Gail Parsons	Education Director	Pratt Museum
Betsy Webb	Curator	Pratt Museum
Ron Alderfer	Board Chairman	Center for Alaskan Coastal Studies
Marilyn Sigman	Executive Director	Center for Alaskan Coastal Studies
Joel Cooper	Research Director	Cook Inlet Keeper
Susan Mauger	Watershed Researcher	Cook Inlet Keeper
Bob Shavelson	Executive Director	Cook Inlet Keeper

APPENDIX B. PERSONS ATTENDING THE PUBLIC MEETING

Name	Affiliation
Bumppo Bremicker	Teacher, Port Graham School
Catie Bursch	Community Member
Stan Eller	Biology Teacher, Homer High School

APPENDIX C. RESPONSE TO WRITTEN COMMENTS

NOAA received one set of written comments regarding KBNERR. The comments are summarized below and followed by NOAA's response.

Alan Bennett, Inventory and Monitoring Coordinator
Southwest Alaska Network
National Park Service
Anchorage, Alaska

Comment: Mr. Bennett directs a long-term ecological monitoring program for five units of the National Park Service in southwest Alaska. Collectively, they represent the Southwest Alaska Network (SWAN), one of four such networks in Alaska. The goal of the monitoring program is to establish baseline reference conditions representing the current status of coastal, freshwater, and terrestrial ecosystems and to document changes over time. Mr. Bennett notes that SWAN coastal parks and KBNERR share a common region of interest in southcentral Alaska and have overlapping scientific and resource protection goals. He describes areas of collaboration between SWAN coastal parks and KBNERR. Mr. Bennett looks forward to sustained collaboration with KBNERR and other partners as SWAN develops a long-term monitoring plan and initiates operational monitoring.

NOAA's Response: No response necessary.

APPENDIX D. SUMMARY TABLE OF ACCOMPLISHMENTS

Issue Area	Accomplishment
Management and Administration	In order to better manage its programs, the reserve is making an effort to track all tasks and associated costs monthly. Administrative staff also has inventoried training opportunities and are planning training for all reserve staff on state administrative and financial procedures. Administrative staff has been successful in securing funds and purchasing a 4,879 square foot modular unit and a 1,500 square foot lab to support reserve administration, education, stewardship and research staff.
Reserve Council	KBNERR has organized a Reserve Council to provide an organized structure for substantive and meaningful dialogue and recommendations among reserve staff, agencies, local governments, researchers, environmental educators, conservation groups and others interested in natural science research and education.
Education Program	Since KBNERR's designation in 1999, the reserve has developed a strong Education Program.
	KBNERR's Education Program also has an excellent outreach component.
Research and Monitoring Program	KBNERR has an active Research and Monitoring Program.

APPENDIX E. SUMMARY TABLE OF RECOMMENDATIONS

#	PS/NA	Recommendations
1	NA	DFG and reserve management must work together to develop alternative methods of addressing current financial shortfalls at KBNERR. Within one month of receipt of final evaluation findings, KBNERR must submit to NOAA an FY 04 financial plan detailing all sources of match. Updates to the plan will be described in KBNERR's semi-annual performance reports.
2	NA	Upon receipt of final evaluation findings, KBNERR must begin submitting complete grant applications and semi-annual performance reports to NOAA on time.
3	PS	NOAA strongly urges DFG and reserve management to work together to address the current lack of leadership at the reserve. Reserve management should begin proactive, transparent decision-making and planning for KBNERR's future. Thorough and respectful communication between reserve management and staff as well as among staff is absolutely critical. NOAA requests that specific actions that have been taken to address leadership issues at the reserve, particularly related to staff and financial management, be detailed and updated in KBNERR's semi-annual performance reports.
4	PS	NOAA strongly encourages DFG to work cooperatively with both KBNERR and NOAA to explore all options regarding future ownership and use of the reserve's existing modular facility.
5	PS	NOAA strongly encourages KBNERR to develop a detailed process and timeline for revising its management plan by July 2004. Updates on the management plan revision's progress should be described in KBNERR's semi-annual performance reports.
6	PS	NOAA encourages KBNERR to explore options for closer collaboration with community partners once the outstanding financial issues at the reserve have been addressed.
7	PS	NOAA strongly encourages KBNERR to expand its efforts to reach local Native Alaskan communities through both education and research to the greatest extent practicable.