SOUTH SLOUGH NERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION

South Slough
National Estuarine
Research Reserve

385 Seven Devils Road
Charleston, Oregon 97420

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Fishman Environmental Services - Project 98091

ACKNOWLEDGMENTS

Development of the South Slough NERR Cooperative Plan for Watershed Conservation was a dynamic process involving many people. Mike Graybill, Manager, and Craig Cornu, Stewardship Coordinator at South Slough NERR provided the leadership, project management, information, and critical editorial review. Mike and Craig worked with the consultants and the advisory committee through numerous meetings, working sessions, phone calls and e-mails; their vision and leadership were the driving forces behind development of this Plan.

The Cooperative Plan Advisory Committee, or CPAC, consisted of 16 citizens from the Coos Bay/North Bend area (see Appendix B for a list of CPAC members). Many of these people participated in every one of the six CPAC meetings and two Public Open House meetings, giving their time, energy and creative ideas to the project. The project would not have been successful without the efforts of these dedicated citizens.

South Slough NERR staff provided key information and assistance needed for Plan development.

The South Slough NERR Commission approved the Plan scope of work, [provided review comments, and approved the Plan].

A number of other local citizens were involved in the project in the form of stakeholder interviews, participation in public Open House meetings, or requested to be on the CPAC mailing list. Their interest in the project is appreciatively acknowledged.

A large number of staff persons at local, state and federal agencies and non-profit land trusts graciously provided information for the Plan via telephone interview; many also provided digital data.

Finally we would like to acknowledge all of the people who will continue to work from this Plan to improve the South Slough NERR and assist the Reserve to continue to meet it's mission and goals. We have been impressed with the interest and dedication the local community has for this important program.

for the consultant team...

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0 COOPERATIVE PLAN SUMMARY

Located in Coos Bay's South Slough inlet, the South Slough National Estuarine Research Reserve (NERR) was established in 1974 as the first in a nationwide system of coastal Reserves dedicated to estuarine research, education and stewardship.

The South Slough NERR Cooperative Plan for Watershed Conservation (Cooperative Plan) is intended to advance the stewardship goals of the South Slough NERR Management Plan (SSNERR.1994) by guiding the Reserve's acquisition of new land management responsibilities. The cornerstone of the Management Plan stewardship goal is "to ensure that Reserves' ecosystems will continue to be available for long-term estuarine research, education and interpretation." The stewardship mission of the South Slough NERR also focuses on providing "stewardship for key examples of estuarine ecosystem types of the lower Columbian biogeographic region." The Cooperative Plan, therefore, looks at two geographic perspectives: 1) estuarine ecosystems within or integrally linked to the present South Slough NERR administrative lands; and 2) estuarine ecosystems within the larger biogeographic region (the coastal area between the mouth of the Columbia River to the north and Cape Mendocino to the south).

The two driving forces behind the development of The Cooperative Plan are: 1) the findings of the Reserve's 1994 Management Plan, and 2) a $1.6 million bequest from a local Coos Bay resident, Chalmer Gustafson, for the sole purpose of acquiring additional land to be added to the South Slough NERR.

The Cooperative Plan is a program in which "acquisition" is defined to include a variety of actions, including fee simple purchase, easements, land donations, land exchanges, stewardship partnerships and others; it is strictly a "willing seller" program.

Upon approval by the South Slough NERR Management Commission, the Cooperative Plan will become part of the South Slough NERR Management Plan and the NERR program of the National Oceanic and Atmospheric Administration (NOAA). NOAA must follow a specific process for approval of NERR boundary and Management Plan changes. The process includes public notice and an opportunity for public comment, and environmental review under the federal National Environmental Policy Act (NEPA).

Central to the development of the Cooperative Plan was a public involvement process that included formation of the Cooperative Plan Advisory Committee (CPAC), made up of representatives of local business, real estate, environmental, and county, state and federal government interests. The Conservation Plan Advisory Committee had six meetings over an eight month period in 1998-99, and presided over two public open house meetings. The CPAC, South Slough NERR Staff, and the consultants worked together as a team to develop the foundation of the Cooperative Plan.

Through an iterative process involving South Slough NERR staff and the general public the CPAC developed acquisition goals to guide Conservation Plan development that resulted in the identification of an acquisition Planning Area comprised of six Areas of Interest. Each Area of Interest was also assigned a level of effort or allocation of time and budget resources and property selection criteria.

Three principal acquisition goals led to the identification of the Areas of Interest and development of selection criteria: Goal 1) protect the lands within the current Reserve administrative boundary, emphasizing the need to acquire key landscape features within the South Slough watershed; Goal 2) provide diversity of habitat, emphasizing the Reserve's need to represent bioregional habitat types as required by NOAA; and Goal 3) address specific projects, emphasizing acquisitions that allow Reserve staff to respond to opportunities that will advance South Slough NERR research, education and stewardship objectives.

The Areas of Interest in which future acquisition efforts will be focused are described as follows:

Area of Interest 1 is the Winchester Creek watershed; resource allocation 10%. The Winchester Creek watershed was identified as the most critical property to protecting the South Slough mission and addressing the CPAC's goals and selection criteria because of its large size and landscape relationship to the South Slough. The relatively low percentage of resources identified to pursue Winchester Creek acquisition and/or management partnerships reflects the already solid partnership between Coos County, the major property owner, and the South Slough NERR.

Area of Interest 2 consists of the watersheds of the east-west streams; tributary watersheds that feed into the existing South Slough NERR boundaries. Resource allocation was set at 30%. The decision was reached that controlling the headwaters of creeks draining into Reserve bottomlands is a relatively high priority for protecting Reserve habitats and for enhancing opportunities for research activities.

Area of Interest 3 consists of the north watersheds of South Slough, including several tributaries, ocean inputs, and shorelines outside the Slough watershed. Resource allocation is established at 40%. Activities in the watersheds tributary to South Slough outside the NERR boundaries, and in the waters of the Coos Bay and ocean immediately outside South Slough can have impacts on conditions inside the South Slough NERR boundary. Because of small parcel sizes and numerous owners, more resources were allocated to this area of interest.

Area of Interest 4 is the town of Charleston; resource allocation level is 15%. This Area of Interest is identified in order to seek and respond to opportunities for a South Slough NERR presence in the town, such as an interpretive facility.

Area of Interest 5, the existing South Slough NERR ownership, did not receive a resource allocation level. The lands in existing South Slough NERR ownership are identified as an Area of Interest based on the finding that water and mineral rights associated with some of these parcels are owned by parties other than the State of Oregon, and these should be dealt with either through acquisition or agreement.

Area of Interest 6 consists of biogeographic region opportunities, with a resource allocation level set at 5%. This level of resource allocation reflects the desire to dedicate resources to negotiating partnerships on public lands outside the South Slough watershed, but within the greater biogeographic region for purposes of adding under-represented habitat types to the South Slough NERR program.

The Cooperative Plan contains a database of information and GIS project for the Mid-Pacific Section of the Columbian Biogeographic Region. Each NERR in the federal system is intended to represent habitats and estuarine types within one of the biogeographic regions identified by NOAA. The Mid-Pacific Section of the Columbian Biogeographic Region extends from Cape Mendocino, California north to the Columbia River at the border of Oregon and Washington. The Cooperative Plan GIS and database have information on all public-owned lands in the biogeographic region and habitats within those properties. This information will be used to identify partnering opportunities consistent with the South Slough NERR mission.

Sections of the Cooperative Plan present information gathered on the Planning Area, including general property valuation and ownership. Mineral and water rights of the existing Reserve lands are also summarized. A landscape assessment is provided for the Planning Area, with information on the occurrence of habitat types that are not presently represented in the Reserve. The watersheds of South Slough are characterized by a number of attributes.

The Cooperative Plan recognizes the need to leverage the Gustafson bequest using grant or other funds. Private and public grant funding sources are listed and discussed.

An implementation strategy is presented for the Cooperative Plan. Goals and objectives of the Cooperative Plan were established by the CPAC. A list of acquisition parameters is provided for adoption; these relate to the "willing seller" principle, property location, acquisition criteria, price, and method of ownership. The strategy section recommends formation of an Acquisition Team with assigned responsibilities. The team would consist of: a decision maker, an acquisition coordinator, a natural resource specialist, a real estate negotiator, and legal counsel. Direction is provided for gathering site-specific information on properties considered for acquisition, and an approach is suggested for dealing with early acquisition opportunities.

The federal process for the Cooperative Plan will involve holding a public meeting to receive comments on the draft Final Cooperative Plan, submitting a final Cooperative Plan to NOAA for review, including NEPA compliance review, publication of a summary and notice of decision in the Federal Register and local newspapers to solicit public review and comments, and final approval of the Cooperative Plan by NOAA and the South Slough NERR Commission.

1 INTRODUCTION

1.1 Cooperative Plan Purpose and Contents

The South Slough National Estuarine Research Reserve (NERR) Cooperative Plan for Watershed Conservation (Cooperative Plan) is intended to advance the stewardship goals of the South Slough NERR Management Plan (SSNERR.1994) by guiding South Slough NERR's acquisition of new land management responsibilities. The cornerstone of the Management Plan stewardship goal is "to ensure that Reserves' ecosystems will continue to be available for long-term estuarine research, education and interpretation" (SSNERR 1994). The stewardship mission of the South Slough NERR also focuses on providing "stewardship for key examples of estuarine ecosystem types of the lower Columbian biogeographic region." The Cooperative Plan, therefore, looks at two geographic perspectives: 1) estuarine ecosystems within or integrally linked to the present South Slough NERR administrative lands; and 2) estuarine ecosystems within the larger biogeographic region.(the coastal area between the mouth of the Columbia River to the north and Cape Mendocino to the south).

This Cooperative Plan was developed by a Project Team consisting of South Slough NERR staff, a contracted consultant group, and an advisory committee made up of local citizens (Cooperative Plan Advisory Committee, or CPAC). Team members are listed in Appendix B.

The Cooperative Plan consists of nine sections and fourteen appendices. A brief description of each section is presented below.

Section 1. Introduction

Section 2. Background
- History of land acquisition in the South Slough NERR
- Bequest left to the Reserve by Chalmer Gustafson
- Overview of the federal requirements for expanding NERRs

Section 3. Public Process for Identification and Prioritization of South Slough NERR Planning Area
- Acquisition goals, issues, methods and results from the facilitated Cooperative Plan Advisory Committee/South Slough NERR staff acquisition planning process

Section 4. Biogeographic Region Summary and Opportunities
- Landscape attribute information
- Selection criteria for Areas of Interest identified in the Cooperative Plan Advisory Committee/South Slough NERR staff acquisition planning process
- Property valuation, and mineral and water rights data gathered

Section 5. Planning Area Summary and Opportunities
- NOAA Bioregional Habitat Typologies
- Conservation opportunities within the Lower Columbian bioregion.

Section 6.Opportunities for Funding and Partnerships
- Strategies for augmenting the Gustafson bequest funds
- Partnerships through memoranda of understanding

Section 7. Implementation Strategies for Planning Area Conservation
- Strategies for Plan implementation, including the adoption of acquisition parameters, establishing an acquisition team with defined responsibilities, collecting information on Areas of Interest, and acquisition steps

Section 8. Recommendations for Plan Implementation
- Summarized recommendations for Plan implementation

Section 9. References Cited

Appendices

Various documents, background materials, and Cooperative Plan notes and products as referenced in the Cooperative Plan text.

1.2 South Slough NERR History and Management Plan

The National Estuarine Research Reserve System (NERRS) was established by Section 315 of the federal Coastal Zone Management Act of 1972 (16 USC 1461). The mission of the NERRS stated in the Act is:

> *the establishment and management, through Federal-state cooperation, of a national system of Estuarine Research Reserves representative of the various regions and estuarine types in the United States. Estuarine Research Reserves are established to provide opportunities for long-term research, education, and interpretation.*

The goals of the NERRS were established by federal regulation at 15 CFR 921.1(b) as follows:

> *Ensure a stable environment for research through long-term protection of National Estuarine Research Reserve resources;*
>
> *Address coastal management issues identified as significant through coordinated estuarine research within the System;*
>
> *Enhance public awareness and understanding of estuarine areas and provide suitable opportunities for public education and interpretation;*

Promote Federal, state, public and private use of one or more Reserves within the System when such entities conduct estuarine research; and

Conduct and coordinate estuarine research within the System, gathering and making available information necessary for improved understanding and management of estuarine areas.

In 1974 the South Slough National Estuarine Research Reserve was the first NERR established under the federal Act. A South Slough NERR Management Plan was developed and finalized in 1984 (SSNERR 1984), and was updated in 1994. The Stewardship Plan section (Section II) of the 1994 Management Plan describes the lack of representation of specific estuarine habitats in the current South Slough NERR administrative boundary, and the need to expand the South Slough NERR administrative boundaries or assume additional stewardship responsibilities in order to meet NERRS goals. New stewardship areas will be considered, according to the Management Plan, for purposes of:

- incorporating examples of Columbian bioregional estuarine habitats not presently represented in the Reserve;
- achieving consolidated stewardship of fragile habitats which straddle the current administrative boundaries, and full title to lands within those boundaries; and
- achieving adequate buffer areas around key habitats already under South Slough NERR stewardship.

2 BACKGROUND

2.1 Stewardship Mission and South Slough NERR Program Goals

The Stewardship Mission in the South Slough NERR Management Plan is:

> *To maintain and restore the integrity and natural dynamic processes of an estuarine ecosystem representative of the Columbian biogeographic region; and to provide Reserve stewardship for key examples of estuarine ecosystem types of the lower Columbian biogeographic region, for long-term scientific and educational use.*

The Stewardship Plan of the South Slough NERR Management Plan (1994) contains within its Plan of Action a goal (Goal 3) that directs acquisition of title or stewardship rights. Goal 3 is presented on the next page.

This stewardship goal is the basis for the Cooperative Plan, and sets the direction for the Cooperative Plan development process.

The federal law requires all NERRs to be managed in ways that ensure that long-term estuarine research, education and interpretation can be conducted in Reserves' ecosystems. It is therefore important to understand the research and education context within which the Cooperative Plan operates. The research and education missions and goals for the South Slough NERR are presented below (SSNERR 1994).

Research Plan

Mission: Expand scientific knowledge of estuarine processes by addressing significant gaps in the understanding of dynamic change within estuarine ecosystems.

Goal 1: Provide opportunities for members of the public, private industry, agency investigators, university faculty, graduate students, and undergraduate students to make significant contributions to our understanding of dynamic change within nearshore and estuarine systems;

Goal 2: Support use of South Slough NERR as a natural laboratory or benchmark to assess the magnitude and extent of change in the Coos estuary and other estuarine ecosystems of the Columbian biogeographic region;

Goal 3: Encourage and assist in the development of an science-based, multi-agency approach to ecosystem management in the Coos estuary and other estuarine systems of the Columbian biogeographic region;

STEWARDSHIP PLAN GOAL 3: **Acquire title or stewardship rights to estuarine habitats representative of the Columbian biogeographic region, consistent with the goals of the National Estuarine Research Reserve System and the mission of South Slough NERR stewardship.**

Objective 3a: Incorporate estuarine ecosystems representative of the Columbian bioregion into Reserve-managed lands.

Tasks:

- Work with coastal landowners to locate sites of significance to South Slough NERR mission.
  - identify significant estuarine habitat on lands managed by other public entities.
  - identify estuarine habitat currently managed by private non-profit organizations.
- Alert local land stewardship groups and community of South Slough NERR interest and ability to offer estuarine stewardship services or guidance.
- Work with interested landowners to evaluate sites according to South Slough NERR criteria.
- Prepare acquisition plan conforming to NERR requirements (15 CFR Part 921.13 (a)(7)

Objective 3b: Attain complete stewardship of key estuarine habitats currently divided by administrative boundary lines.

Tasks:

- Identify key habitat areas which straddle current administrative boundaries.
- Hold South Slough watershed meeting for residents and landowners, share information regarding potential for easements, donation for tax benefits, stewardship agreements, and other mechanisms for Reserve stewardship of key parts of watershed.
- Obtain financial assistance from NOAA, the State of Oregon, and other available sources to acquire land necessary to achieve unified stewardship of key habitats currently bisected by administrative boundaries.
- Identify all severed rights (e.g. mineral, timber) on habitats managed or to be managed by South Slough NERR; obtain assistance from DSL for acquisition.

Objective 3c: Ensure adequate buffer of key habitats managed by South Slough NERR.

Task:

- Explore a range of options for creation of buffer areas, including easements, stewardship agreements, multi-party land exchange or outright purchase to achieve stewardship of watershed uplands.

Goal 4: Improve the availability of research information as a basis for more informed coastal ecosystem management decisions throughout the Columbian biogeographic region.

Education, Information and Interpretation Plan

Mission: Increase awareness, understanding, and appreciation of estuarine systems and estuarine stewardship by facilitating access to information about estuarine systems, and by providing opportunities for personal experiences with them.

Goal 1: Create and maintain high quality estuarine information and estuarine contact opportunities for the people of the Columbian biogeographic region.

Goal 2: Heighten awareness within the Columbian biogeographic region of the availability of estuarine information and educational resources through South Slough NERR and the NERR system.

Goal 3: Provide leadership in the study and development of estuarine education and interpretation.

This Plan guides South Slough NERR planning area activities that are commensurate with these goals and their associated objectives.

2.2 History of Land Acquisitions

1974-1984

Most of the 138 properties, totaling approximately 4,488 acres, presently owned by the Oregon Division of State Lands (ODSL) at South Slough NERR were obtained during this period. A listing of these properties, the types of transactions, and the dates of transaction are listed in Appendix N (ODSL 1997).

The first acquisitions for South Slough NERR were three properties owned by Georgia Pacific Co. (GP), Oxford, and Kunz.[1] The Oregon Land Conservation and Development Commission contracted the Nature Conservancy to conduct the negotiations and hold these properties (the initial Kunz property deal was a conservation easement). The Nature Conservancy transferred property titles for these first acquisitions to the Oregon State Land Board in 1976 when the Land Board had the appropriate funds to match the NOAA acquisition funding. The GP property was the first piece acquired; GP retained timber harvest rights on the land and sold the timber to the state when it was harvested. GP also supplied trees for reforestation, and the replanting was completed by the state.

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[1] Information on early acquisitions was provided by Carlyle Brenna, former ODSL finance director.

Following these initial acquisitions. the process was taken over by the ODSL. Subsequent acquisitions followed a process in which ODSL contracted appraisals, negotiated with the land owner(s), secured funding from the state legislature, and closed the deals. In some cases, ODSL provided a statement to the willing land owners, at their request, indicating that the state had a right of condemnation; this was then used by the owners for purposes of obtaining a tax write-off for the property sale. Properties were typically obtained at fair market value, although fair market value could be exceeded with the proper documentation to justify the sale price.

1984-1996

Three properties were acquired during the period 1984 through 1996. The Kunz property, 27.8 acres, was purchased in September, 1988; the Tracy property, 174.2 acres, was purchased in December, 1991, and the Johnson property, about 10 acres, in 1996.

2.3 The Chalmer Gustafson Bequest

The South Slough NERR was named as the main beneficiary in the 1987 will of Mr. Chalmer Gustafson. At the time he was writing his will, Mr. Gustafson met with South Slough staff to inform the Reserve that he was planning to name South Slough NERR in his will. No one at the Reserve expected a gift so large. Mr. Gustafson was not known to staff at the Reserve, and had no prior connections there. The bulk of Mr. Gustafson's estate was left to the State of Oregon, Division of State Lands (ODSL) specifically for the purpose of acquiring additional land for the South Slough NERR. The Gustafson will is included as Appendix C.

The ODSL may use any or all of the Gustafson funds for acquisition. By the terms of the will, if ODSL is for any reason unable to acquire additional land, the remainder of the estate will go to the State of Oregon, Department of Fish and Wildlife (ODFW) specifically for acquisition of land for a wildlife refuge or to add to an existing wildlife refuge. If ODFW is unable to meet these terms, the remainder of the estate will go to Ducks Unlimited for acquisition of land for waterfowl nesting areas.

After Mr. Gustafson's death, his Personal Representative liquidated the estate. DSL received a check for $1,625,333.05 on August 18, 1995. The funds were placed in Treasury short-term investments, earning approximately 5% interest that accrues monthly. The only withdrawal from the Treasury account was $116,417.09 for the purchase of the Johnson property, which occurred on August 16, 1996. This property consists of two parcels totaling just under 10 acres. No other purchases have been made with these funds, and there have been no other withdrawals from the account. The Treasury account's balance as of December 31, 1998 was $1,813,782.33[2].

An important aspect of Mr. Gustafson's bequest is that it is very straightforward. The funds are to be used for acquisition of land to be added to the Reserve, but there are no other restrictions or directions. He did not set conditions on the location or types of land to be acquired, nor did he attempt to influence the rules governing public use of the Reserve.

[2] Financial data provide by Cynthia Vermilyea, Fiscal Manager, Division of State Lands

DSL requested that the Oregon Department of Justice (DOJ) make an initial interpretation of the terms of the will relating to the use of the bequest for acquisition planning purposes. DOJ contracted with Warren Deras, the State of Oregon's consulting attorney for estates. The initial request by DOJ was narrowly focused on the planning issue. Mr. Deras found that by the terms of the will, some of the bequest funds may be used for acquisition planning purposes, provided that the planning is working toward the ultimate goal of acquisition (see Appendix K for copy of letter from Mr. Deras).

When Mr. Deras wrote his original opinion on the use of the Gustafson funds for acquisition planning purposes, he expressed concern about the purchase of conservation easements or other less than fee simple interests under the terms of the will. He had not specifically researched this question, but advised DSL that the question of the applicability of the bequest funds to easements should be considered. The Project Team has since contacted Mr. Deras to discuss the possibility of making an interpretation of the terms of the will relating to the acquisition of land.[3] The purpose of the discussion was to explore other possibilities for using the Gustafson funds. For example, if the Gustafson funds could be used for the acquisition of easements or other property rights other than the fee simple purchase of land, South Slough NERR would have greater flexibility and broader tools to acquire control over larger acreages of land.

Although Mr. Deras has not formulated an opinion on this matter, he did indicate that an easement is certainly an interest in land. He indicated that the clause within the will could likely be read to permit the acquisition of easements or other property rights. In order to make a determination on this specific issue, a request for formal interpretation by the DOJ has been requested through DSL (July 1999).

2.4 Federal Requirements for Expanding the National Estuarine Research Reserve

Additions of land and boundary expansions of NERRs are governed by federal regulation. In the following discussion, the term "acquisition" is meant to include any one of a number of actions, such as fee simple purchase, easements, land donations, land exchanges, etc.

The elements of a NERR management plan are listed in 15 CFR 921.13(a)(15 CFR Part 921 is included as Appendix D). According to the CFR, an acquisition plan is one of the elements to be included in the management plan, and 15 CFR 921.13(a)(7) sets out specific requirements and criteria for the acquisition plan component. South Slough completed an updated management plan in 1994, and the stewardship section of that plan addressed acquisition. This Cooperative Plan serves as an addendum to the 1994 management plan, and includes a discussion of how the identified acquisitions address the goals and objectives contained in the 1994 plan.

The NERR regulations contain procedures for boundary expansions:

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[3] Personal communication: June 15, 1999. Clay Moorhead, CDA Consulting Group, and Mr. Warren Deras.

15 CFR 921.33 Boundary changes, amendments to the management plan, and addition of multiple-site components.

> *(a) Changes in the boundary of a Reserve and major changes to the final management plan, including state laws or regulations promulgated specifically for the Reserve, may be made only after written approval by NOAA. NOAA may require public notice, including notice in the* ***Federal Register*** *and an opportunity for public comment before approving a boundary or management plan change. Changes in the boundary of a Reserve involving the acquisition of properties not listed in the management plan or final EIS require public notice and the opportunity for comment; in certain cases, a categorical exclusion, an environmental assessment and possibly an environmental impact statement may be required. NOAA will place a notice in the* ***Federal Register*** *of any proposed changes in Reserve boundaries or proposed major changes to the final management plan. The state shall be responsible for publishing an equivalent notice in the local media. See also requirements of § 921.4(b) and § 921.13(a)(11).*

The National Environmental Policy Act of 1969 (NEPA) sets forth requirements for environmental review before actions are taken on Federal projects. While meeting NEPA requirements, 15 CFR 921.33 allows discretion on the part of NOAA staff in determining the level of environmental review for acquisitions and other changes to NERRs. This discretionary determination allows some flexibility both during the preparation of the draft acquisition plan and during the actual acquisition phase.

3 PUBLIC PROCESS FOR IDENTIFICATION AND PRIORITIZATION OF SOUTH SLOUGH NERR PLANNING AREA

3.1 Public Involvement Process Overview

Development of the Cooperative Plan included a public process to identify the area within which acquisitions would be sought (the Planning Area), and specific areas or properties (Areas of Interest) that were considered important to meet South Slough NERR goals and objectives. It was recognized from the outset that the Cooperative Plan would consider two major geographic frames of reference: a local area (Planning Area) that would be the focus of an acquisition[4] program designed to protect the existing South Slough NERR lands and add stewardship responsibility for important habitat types; and a much larger area representing the Mid-Pacific section of the Columbian Biogeographic Region, within which the focus would be partnerships or other cooperative mechanisms.

The Cooperative Plan is strictly a "willing sellers" program; in other words, any purchases of properties, easements or other acquisitions will only be from willing sellers. **This principle is a cornerstone of the Cooperative Plan**, and it was clearly articulated to all citizens who participated in the Cooperative Plan development process.

An aggressive stakeholder and public involvement process was used to identify the South Slough NERR Planning Area, select Areas of Interest within the Planning Area where acquisition activities would be focused, and to develop criteria for the selection of properties within the Areas of Interest. The process involved the following steps: a) interviewing key community leaders to identify stakeholder groups; b) the formation of a Conservation Planning Advisory Committee (CPAC) made up of representatives of those stakeholder groups; c) one-on-one interviews with CPAC members and other stakeholders; d) six CPAC meetings; and e) two public open houses. Table 3.1 lists the CPAC and Open House meetings (meeting materials are in Appendix L).

TABLE 3.1 CPAC AND PUBLIC OPEN HOUSE MEETING SCHEDULE

MEETING TYPE	DATE	LOCATION
CPAC meeting 1	November 17, 1998	Oregon Institute of Marine Biology
CPAC meeting 2	December 15, 1998	Oregon Institute of Marine Biology
CPAC meeting 3	February 23, 1999	Coos Bay/North Bend Water Board
Public Open House 1	April 6, 1999	North Bend Library
CPAC meeting 4	April 21, 1999	Coos Bay/North Bend Water Board
CPAC meeting 5	May 19, 1999	Coos Bay/North Bend Water Board
CPAC meeting 6	June 9, 1999	Coos Bay/North Bend Water Board
Public Open House 2	June 30, 1999	North Bend Library

[4] The term "acquisition" includes a variety of stewardship mechanisms, as described in Section 8.

The end products of this stakeholder and public involvement process were:

- A stakeholder interview summary
- Areas of Interest ranking criteria
- Areas of Interest map with 5 ranked areas
- Staff and budget resource allocation plan
- Acquisition strategy (questions to guide the staff in determining an approach to each property opportunity)

3.2 Stakeholder Interviews and Advisory Committee Formation

The process began with a meeting with key community leaders to identify stakeholder groups and individuals. The South Slough NERR staff and consulting team met with:

Coos County Commissioner Bev Owen,
John Brands, local businessman (Central Dock),
Alan Rumbaugh, Oregon International Port of Coos Bay,
Rob Schab, Coos Bay/North Bend Water Board, and
Bob Laport, Coos County Forestry.

The key community stakeholders group identified sixteen stakeholders who would be members of the Cooperative Plan Advisory Committee (see Appendix B for membership list). Membership of the Conservation Plan Advisory Committee included representatives from local businesses (deep sea boat chartering, timber harvesting, oyster farming, natural resource consulting, and local real estate), the local newspaper, Port of Coos Bay, Coos Bay/North Bend Water Board, Coos County Board of Commissioners, Coos County Forestry, University of Oregon Institute of Marine Biology, Coos Watershed Association, South Slough NERR Technical Advisory Group, South Slough NERR Management Commission, a federal agency (BLM), local tribal interests and a local environmentalist. The CPAC worked closely with South Slough NERR staff and the consultants as a team to develop the foundation of the Cooperative Plan. References in this document to CPAC actions refer to this team effort.

Two groups of stakeholders were subsequently interviewed: 1) some of the CPAC members; and 2) staff of South Slough NERR and interested natural resource agencies in the area. The interview questionnaire was similar for both groups, with the agency questionnaire including specific questions regarding the representation of Columbian Biogeographic Region ecosystem types within the South Slough NERR (see Appendix E).

The stakeholder interviews were summarized for review by the CPAC (see Appendix F). Interview responses provided early identification of important factors to consider for determining the Planning Area, as well as some specific areas of interest to consider in the project.

3.3 Development of Planning Area Goals and Ranking Criteria

Six CPAC meetings were held from November 1998 through June 1999. The first two meetings were dedicated to establishing ground rules, reviewing the project scope and South Slough NERR background, and brainstorming goals and ranking criteria. The group spent considerable discussion time on the goals and ranking criteria - identifying what is most important when thinking about adding land to the Reserve or developing land management partnerships within the biogeographic region. The goals and ranking criteria established and finalized in the first two meetings were used to guide the balance of the conservation planning process (see text box, next page).

In order to expand the base of information for the CPAC, information was collected through the interview process and working with South Slough NERR staff. This information included sites for significant plant and animal species, unique habitats, and other important areas. From this information the consultant team developed a set of "focus areas" and "ranking criteria" (see text box, below) for discussion purposes. These focus areas were then input into a Geographic Information System (GIS) and a map was plotted for use by the CPAC. Some explanation of these focus areas was provided to give the CPAC members a better understanding of these key features found in the South Slough and Coos Bay Watersheds. In addition, information about the NOAA habitat typologies was provided to each of the CPAC members. This information was described and the NOAA federal process for expanding NERR boundaries was described. Map 3[5] and Appendix G contain the information presented to the CPAC.

South Slough NERR Focus Area Ranking Criteria
used early in the CPAC process

1. Does Focus Area Meet Program Goals?

Goal 1. Protect the integrity of existing investment
Objectives:
- provides increased control over intact watersheds
- provides for protection or conservation of important ecological functions (i.e. water quality, wildlife corridors, wetland hydrology, genetic resources and dispersal pathways, critical habitat for rare species, etc.)

Goal 2. Provides diversity of habitat
Objectives:
- provides opportunities for upland research
- provides opportunities for relatively pristine and "built" environment research, education and stewardship
- provides increased habitat diversity within South Slough NERR program to adequately represent biogeographic region habitat typology (ecological structure)
- provides for conservation of aesthetically important sites (views, sounds)

Goal 3. Address specific projects
Objectives:
- provides opportunities for demonstration of ecologically effective agricultural land uses
- provides opportunities for salmonid restoration research
- provides potential for development of ecotourism

[5] Maps referenced in the Cooperative Plan are large-format maps on file at the South Slough NERR office. Small format versions of these maps are included at the end of the Cooperative Plan, but these are not entirely readable. References to Figures in the Cooperative Plan are smaller format maps or drawings that are included in the body of the Cooperative Plan.

3.4 Identification of Areas of Interest

At the third CPAC meeting the group began to apply the goals and ranking criteria to a large map of the Coos Bay area. The purpose of this exercise was to see how effective the goals and ranking criteria were in actually helping to make choices. The group ended this process with several major areas identified on the map as "areas of interest" for acquisition and "areas of interest" for management partnerships. The important planning conclusion of this meeting was the groups' clear decision to focus within the South Slough watershed for acquisition opportunities and in the greater biogeographic region for management partnership opportunities.

The CPAC developed a Landscape Attributes Shopping List describing specific types of properties being sought, and how each type met the goals of the Cooperative Plan. This list was presented to the public at the April 6, 1999 open house (see Appendix L materials for a copy of the original list, and Table 6.1 for the final form of the list).

The CPAC also spent considerable time at the third meeting, and in subsequent small group meetings, planning the first public open house for the Cooperative Plan. CPAC members wanted the open house to generate a large turnout and productive discussion with the community.

3.5 Development of Acquisition Priorities and Resource Allocation

The next three meetings of the CPAC were dedicated to identifying acquisition priorities and determining the percentage of Reserve resources that might be dedicated to each priority level. The CPAC went through a two-phase priority setting process whereby they first identified their top priority sites. They then grouped those sites by category or "area of interest" and established a percentage of total South Slough NERR resources (staff time and budget) to be targeted to each area of interest.

During the course of three meetings, the CPAC identified and ranked specific properties or areas that had a high level of interest. These properties (see Figure 5.1) included: Tildon property, Indian Point, Roseburg Timber Company property, Georgia Pacific property, Coos County property, South Slough tidal waters, streams tributary to the South Slough east side, the estuary itself, and Charleston (i.e. an opportunity for a public presence, such as an interpretive facility). By the end of the work sessions, these properties/areas had been ranked as first, second, or third priority by each CPAC member as shown in the following list:

Property	First Priority	Second Priority	Third Priority
* Tildon property	0	0	0
* Indian Point	1	0	0
** Roseburg Timber property	4	1	0
* Georgia Pacific property	1	2	1
Coos County property	1	2	1
South Slough tidal waters	1	0	0
East-side streams	0	2	1
Estuary	0	0	1
Charleston	0	0	5

* Properties whose owners had expressed active interest in sale to the Reserve
** Special interest property who's owners had expressed willingness to consider sale to Reserve (see below)

Some important aspects of some of the identified properties include:

- Roseburg property - heron rookery, bald eagle nest, large, contiguous block of land, potential scheduled for timber harvest 8/99
- Georgia Pacific property - constitutes a sub-watershed, large contiguous block of land, cost effective.
- County property - desire to increase stewardship influence on Winchester Creek and Cox Creek, obtain water rights, potential coho spawning beds.
- Tildon property - adjacent to the slough.
- Indian point property - at a risk for development as a destination resort, negative visual impacts and potential degradation of an archeological resource.
- East-side - need to protect Talbert and John B. Creek and subbasins.

Finally, the group reaffirmed that the focus for acquisition (in all its forms)[6] should be on properties within the South Slough area. The focus in the greater biogeographic region should be on developing partnerships with other public entities for management influence.

The priority properties were arranged into a system of relative importance by the facilitator, based on committee work, and the CPAC discussed this arrangement and reworked a classification system based upon tributary values. There was consensus that the major focus of staff and budget resources should be to protect areas around the South Slough. In addition to classifying the properties into areas of interest, the group identified the percentage of resources that might be applied to each area of interest. Assigning a percentage of resources to each area of interest frees up the South Slough NERR staff to actively pursue opportunities that may arise in a lower ranked area of interest while waiting for opportunities to develop in the higher ranked areas. The numbers assigned to each area of interest represent the level of interest assigned by the CPAC. The resulting classification was as follows: (see Figure 3.1 and Map 2)

Area of Interest 1: Winchester Creek watershed - Resource Allocation 10%

Winchester Creek watershed was identified as the most critical property to protecting the South Slough mission and addressing the CPAC's goals and selection criteria. The relatively low percentage of resources identified to pursue Winchester Creek acquisition and/or management partnerships was meant to reflect the already solid partnership between the County (major property owner) and the South Slough NERR.

Area of Interest 2: East-West Streams: Tributary watersheds that feed into the existing South Slough NERR boundaries - Resource Allocation 30%.

The CPAC determined that protecting the watersheds that drain to the east and west sides of the South Slough NERR is a relatively high priority for protecting the existing investment.

Area of Interest 3: North Watershed: Other tributaries, ocean inputs, and shorelines outside the Slough watershed - Resource Allocation 40%.

Activities in the watersheds tributary to South Slough outside the NERR boundaries, and in the waters of the Coos Bay and ocean immediately outside South Slough can have impacts on conditions inside the South Slough NERR boundary. Because of small parcel size and numerous owners, more resources were allocated to this area of interest.

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[6] For this project, "acquisition" is broadly defined to include fee simple title, easements, cooperative agreements and other mechanisms to meet the NERR stewardship goals.

Area of Interest 4: Charleston - Resource Allocation 15%.

This Area of Interest is identified in order to seek and respond to opportunities for a South Slough NERR presence in the town, such as an interpretive facility.

Area of Interest 5: Existing South Slough NERR Ownership - resource allocation level not determined

During completion of the Cooperative Plan document, the South Slough NERR staff and consultant team determined that the lands in existing South Slough NERR ownership should be identified as an Area of Interest based on the finding that water and mineral rights associated with some of these parcels are owned by parties other than the state, and these should be dealt with either through acquisition or agreement.

Area of Interest 6: Biogeographic region opportunities - Resource Allocation 5%

This level of resource allocation reflects the desire to dedicate resources to negotiating partnerships on lands outside the immediate area, but within the greater biogeographic region (see Figure 3.1).

After the ranking process, the CPAC reviewed a draft acquisition question list (Appendix H). The intent of this list is to help staff determine their strategy on any potential opportunity. It was pointed out that because of the willing-seller-only approach, acquisitions will be determined on an opportunity-by-opportunity basis, once the South Slough NERR staff has a chance to determine the goals of a seller.

3.6 Public Involvement: Open House Meetings

The goals of the first public open house were to inform the community of the Reserve's conservation planning process, the goals and ranking criteria, and to seek input from possible interested sellers. Twenty-seven people attended the function. The format was open, with three separate "stations" of information and a brief presentation with time for questions and discussion. The CPAC decided to highlight Mr. Chalmer Gustafson with a display featuring his career and hobbies. The Reserve and a map of the area were also featured. County Commissioner Bev Owen gave a brief presentation outlining the process and introducing the members of the CPAC. Commissioner Owen stressed the "willing seller" principal of the project. After the presentation, participants reviewed the map and one person identified himself as a possible seller. After the meeting several other citizens called the Reserve to indicate they too might be interested in selling their property to the Reserve.[7]

The second public open house was held June 30, 1999. The facilitator gave a brief presentation of the process, the goals and ranking criteria and the priority areas of interest. Questions from attendees focused on the relative importance of specific properties within each area of interest. Some citizens were particularly interested in eagle nesting sites in forests scheduled for logging. The process for plan adoption by the South Slough NERR Management Commission was explained, and opportunities were identified for citizen comment as the Cooperative Plan moves through the review and adoption process.

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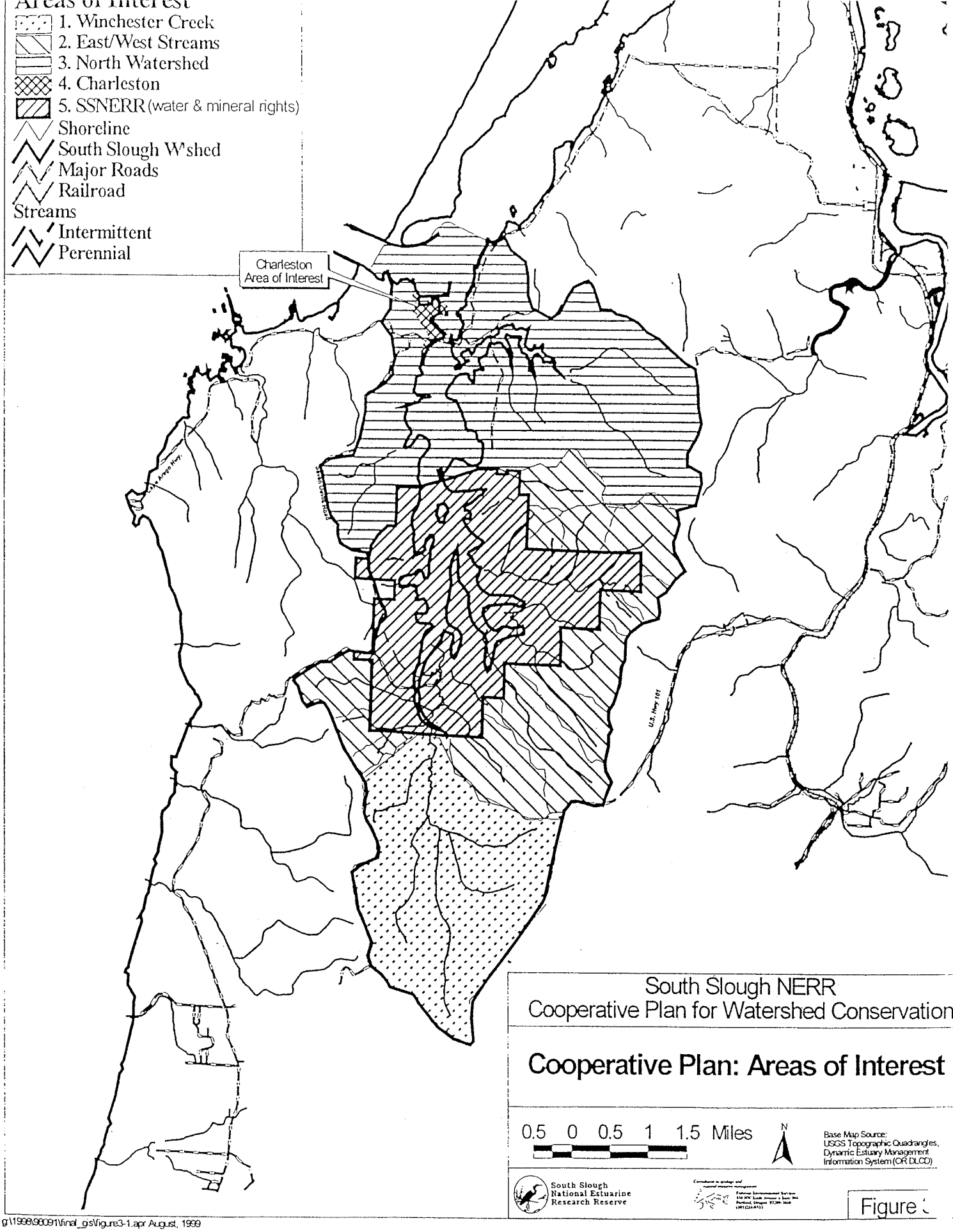
[7] A list is on file at the South Slough NERR office of property owners who have contacted the South Slough NERR to express interest in selling their property. Approximately 12 persons had contacted the South Slough NERR as of publication of this Plan.



g\1998\98091\final_gis\figure3-1.apr August, 1999

4 BIOGEOGRAPHIC REGION SUMMARY AND OPPORTUNITIES

4.1 Introduction

One of the objectives of the Cooperative Plan is to identify opportunities for expanded stewardship within the Columbian biogeographic region; this is Area of Interest 6 identified by the CPAC. The focus of this Cooperative Plan section is to identify public-owned lands where the South Slough NERR can add the NOAA habitat types that are not adequately represented in the current South Slough watershed. The objectives of this section are:

a. Catalogue publicly owned lands within the Mid-Pacific section of the Columbian Biogeographic Region, including Coos Bay, with information on location, ownership, habitat types represented, management objectives, and staff contacts;

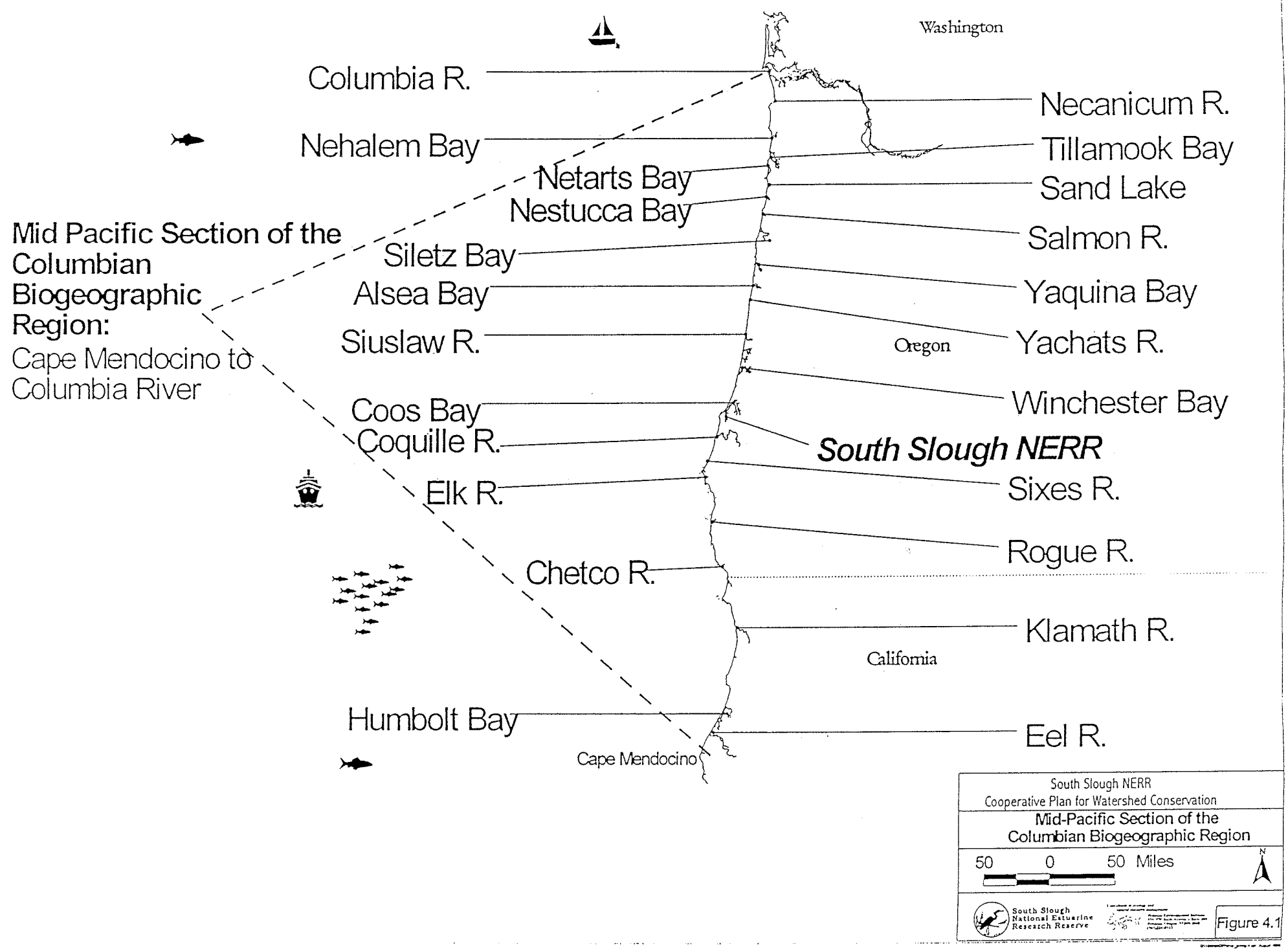
b. Identify potential opportunities for partnerships between the South Slough NERR and public land owners or managers that will increase the South Slough NERR stewardship role within the biogeographic region.

4.2 Habitat Typology and SSNERR Holdings

The selection of National Estuarine Research Reserves is partially based on representing regional differences and the variety of ecosystem types found in the United States. To this end, NOAA developed a biogeographic classification system, and has endeavored to establish a NERR within each region. There are 29 regions within this biogeographic classification scheme; the South Slough NERR is in the Mid-Pacific subarea of the Columbian Biogeographic Region. The Mid-Pacific subarea extends from Cape Mendocino, California north to the Columbia River (see Figure 4.1).

Discussions of the physical and biological features of the Columbian Biogeographic Region are contained in numerous technical documents.[8] The region has a moist, mild climate that supports dense coniferous forests that are among the most productive in the world. Ocean upwelling areas along the coast are very fertile, supporting large populations of fish, including salmon. Coastal geology includes numerous rocky headlands and offshore rocks interspersed with estuaries, dune areas and sandy beaches. The Coast Range mountains are the result of large scale tectonic processes over many millions of years that have faulted, uplifted and folded marine sedimentary deposits. Geologic processes have resulted in a wide range of landforms - mountains and slopes, lowlands and wetlands, beaches and dunes, headlands and islands, streams and estuaries. High levels of precipitation (200+ inches per year in some areas of the Coast Range mountains, 80 to 100 inches annually at sea level through most of the region) produce high runoff to the ocean. Many rivers have small drainage basins due to the closeness of the Coast Range crest to the ocean. The coastline is characterized by a large number of estuaries, with several types present: bar-built, blind (lagoonal), and drowned river valley.

[8] A thorough treatment of this topic is contained in USEPA/USFWS, 1980.


Mid Pacific Section of the Columbian Biogeographic Region:
Cape Mendocino to Columbia River
Washington
Columbia R.
Necanicum R.
Nehalem Bay
Tillamook Bay
Netarts Bay
Sand Lake
Nestucca Bay
Salmon R.
Siletz Bay
Yaquina Bay
Alsea Bay
Oregon
Yachats R.
Siuslaw R.
Winchester Bay
Coos Bay
South Slough NERR
Coquille R.
Sixes R.
Elk R.
Rogue R.
Chetco R.
Klamath R.
California
Humbolt Bay
Eel R.
Cape Mendocino
South Slough NERR
Cooperative Plan for Watershed Conservation
Mid-Pacific Section of the Columbian Biogeographic Region
50 0 50 Miles
N
South Slough National Estuarine Research Reserve
Figure 4.1

The NOAA also developed a typology system to classify estuarine characteristics that are not necessarily related to regional location. This classification system includes 14 ecosystem types arranged within three groups (shorelands, transition areas, submerged bottoms); there are also three groups of physical characteristics (geologic, hydrographic, and chemical) within the classification system. This classification system is illustrated in Table 4.1. The Columbian biogeographic region contains twelve of the ecosystem types; five of these are represented within the current administrative boundary of the South Slough NERR. The other seven ecosystem types are either not represented, or are inadequately represented within the South Slough NERR boundary. The Columbian Biogeographic Region also does not have estuaries representative of two basin types, two basin structures, one inlet type, and at least one tide type and one salinity type (see Table 4.1).

The twelve ecosystem types found in the Columbian biogeographic region are described below.[9] Those indicated with the symbol ◆ are those that are either not represented, or are inadequately represented within the South Slough NERR boundary.[10]

Shorelands

Maritime forest
"This ecosystem has "developed under the influence of salt spray. It can be found on coastal uplands or recent features such as barrier islands and beaches."

Coastal cliffs ◆
"This ecosystem is an important nesting site for many sea and shore birds. It consists of communities of herbaceous, graminoid, or low woody plants (shrubs, heath, etc.) On the top of or along rocky faces exposed to salt spray. There is a diversity of plant species including mosses, lichens, liverworts, and "higher" plant representatives."

Coastal shrubland ◆
"This is a transitional area between the coastal grasslands and woodlands and is characterized by woody species with multiple stems and a few centimeters to several meters above the ground developing under the influence of salt spray and occasional sand burial. This includes thickets, scrub, scrub savanna, scrub heathlands, and coastal chaparral. There is a great variety of shrubland vegetation exhibiting regional specificity..."

Coastal swamps ◆
"These are wet lowland areas that support mosses and shrubs together with large trees such as cypress or gum [Pacific NW swamps might have Sitka spruce or other tree species]."

Coastal grassland ◆
"This area, which possesses sand dunes and coastal flats, has low rainfall (10 to 30 inches per year) and large amounts of humus in the soil. Ecological succession is slow, resulting in the presence of a number of seral stages of community development. Dominant vegetation includes mid-grasses (5 to 8 feet tall), such as *Spartina* and trees such as willow (*Salix sp.*), cherry (*Prunus sp.*), and cottonwood (*Populus deltoides*)..."

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9 Ecosystem type descriptions are taken from the Federal Register, Vol. 58, No. 134; Thursday, July 15, 1993 pp. 38227-38229.

10 A technical terms glossary is included in Appendix A.

TABLE 4.1 TYPOLOGY OF NATIONAL ESTUARINE RESEARCH RESERVES

CLASS	GROUP		
		ECOSYSTEM	
I: ECOSYSTEM TYPES	I. SHORELANDS	A. MARITIME FOREST-WOODLAND y	1. NORTHERN CONIFEROUS FOREST n/a
			2. MOIST TEMPERATE CONIFEROUS FOREST y
			3. TEMPERATE DECIDUOUS FOREST n/a
			4. BROAD-LEAVED EVERGREEN SUBTROPICAL FOREST n
		B. COAST SHRUBLANDS n	1. NORTHERN AREAS
			2. SOUTHEAST AREAS n/a
			3. WESTERN AREAS n/a
		C. COASTAL GRASSLANDS n	1. ARCTIC/BOREAL n/a
			2. NORTHEAST/WEST
			3. SOUTHEAST GULF n/a
			4. MID-ATLANTIC/GULF n/a
		D. COASTAL TUNDRA n/a	1. LOW TUNDRA n/a
			2. HIGH TUNDRA n/a
		E. COASTAL CLIFFS n	
	II. TRANSITION AREAS	A. COASTAL MARSHES y	a. TIDAL y
			b. NON-TIDAL (FRESHWATER) y?
			c. TIDAL FRESHWATER y?
		B. COASTAL SWAMPS n	
		C. COASTAL MANGROVES n/a	
		D. INTERTIDAL BEACHES n	
		E. INTERTIDAL MUD AND SAND FLATS	
		F. INTERTIDAL ALGAL BEDS y	1. NORTHERN LATITUDE ROCKY SHORES y
			2. SOUTHERN LATITUDES n/a
			3. TROPICAL AND SUBTROPICAL LATITUDES n/a
	III. SUBMERGED BOTTOM	A. SUBTIDAL HARDBOTTOMS n	
		B. SUBTIDAL SOFTBOTTOMS y	
		C. SUBTIDAL PLANTS y	

II. PHYSICAL CHARACTERISTICS	I. GEOLOGIC	A. BASIN TYPE	
		1. EXPOSED COAST n	
		2. SHELTERED COAST	
		3. BAY y	
		4. EMBAYMENT	
		5. TIDAL RIVER n	
		6. LAGOON n	
		7. PERCHED COASTAL WETLANDS n/a	
		8. ANCHIALINE SYSTEMS n/a	
		B. BASIN STRUCTURE	
		1. COASTAL PLAINS ESTUARY	
		2. FJORD n/a	
		3. BAR-BOUNDED ESTUARY	
		4. TECTONIC ESTUARY	
		5. VOLCANIC ESTUARY n/a	
		C. INLET TYPE	
		1. UNRESTRICTED n/a	
		2. RESTRICTED n	
		3. PERMANENT y	
		4. TEMPORARY (INTERMITTENT) n	
		D. BOTTOM COMPOSITION	
		1. SAND y	
		2. MUD y	
		3. ROCK n	
		4. OYSTER SHELL	
	II. HYDROGRAPHIC	A. CIRCULATION	1. STRATIFIED
			2. NON-STRATIFIED
			3. LAGOONAL
		B. TIDES	1. DIURNAL n/a
			2. SEMIDIURNAL y
			3. WIND/STORM TIDES
		C. FRESHWATER	1. SURFACE WATER
			2. SUBSURFACE WATER n
			a. VADOSE WATER
			b. GROUNDWATER
	III. CHEMICAL	A. SALINITY	1. POSITIVE ESTUARY y
			2. NEGATIVE ESTUARY y
			3. SALINITY ZONES
			a. HYPERHALINE n/a
			b. EUHALINE
			c. MIXHALINE
			(1). MIXEUHALINE
			(2). POLYHALINE
			(3). MESOHALINE
			(4). OLIGOHALINE
			d. LIMNETIC
		B. pH REGIME	1. ACID
			2. CIRCUMNEUTRAL
			3. ALKALINE

NOTES:
y = yes, type is represented in the SSNERR
n = no, type is not represented in the SSNERR
n/a = not applicable, type does not exist in the Columbian Biogeographic region

source: 15 CFR Part 921, Appendix II

FES G:\1998\98091\habitat\NOAAtypology.wb3

Transition Areas

Coastal marshes
"These are wetland areas dominated by grasses, sedges, rushes, and other graminoid species and is subject to periodic flooding by either salt or freshwater. This ecosystem may be subdivided into: (a) tidal, which is periodically flooded by either salt or brackish water; (b) nontidal (freshwater); or (c) tidal freshwater. These are essential habitats for many important estuarine species of fish and invertebrates as well as shorebirds and waterfowl and serve important roles in shore stabilization, flood control, water purification, and nutrient transport and storage."

Intertidal beaches ◆
"This ecosystem has a distinct biota of microscopic animals, bacteria, and unicellular algae along with macroscopic crustaceans, mollusks, and worms with a detritus-based nutrient cycle. This area also includes the driftline communities found at high tide levels on the beach. The dominant organisms in this ecosystem include crustaceans such as the mole crab (*Emerita*) amphipods (Gammeridae), ghost crabs (Ocypode) and bivalve mollusks such as the coquina (*Donax*) and surf clams (*Spisula* and *Mactra*)."

Intertidal mud and sand flats
"These areas are composed of unconsolidated, high organic content sediments that function as a short term storage area for nutrients and organic carbons. Macrophytes are nearly absent in this ecosystem, although it may be heavily colonized by benthic diatoms, dinoflagellates, filamentous blue-green algae, and chemosynthetic purple sulfur bacteria. This system may support a considerable population of gastropods, bivalves, and polychaetes, and may serve as a feeding area for a variety of fish and wading birds..."

Intertidal algal beds ◆
"These are hard substrates along the marine edge that are dominated by macroscopic algae, . . . but also unicellular or filamentous in growth form. This includes the rocky coast tidal pools that fall within the intertidal zone. Dominant fauna of these areas are barnacles, mussels, periwinkles, anemones, and chitons..."

Submerged Bottoms

Subtidal hardbottoms ◆
"The system is characterized by a consolidated layer of solid rock or large pieces of rock (neither of biotic origin) and is found in association with geomorphological features such as submarine canyons and fjords and is usually covered with assemblages of sponges, sea fans, bivalves, hard corals, tunicates, and other attached organisms. A significant feature of estuaries in many parts of the world is the oyster reef, a type of subtidal hardbottom. Composed of assemblages of organisms (usually bivalves), it is usually found near an estuary's mouth in a zone of moderate wave action, salt content, and turbidity. If light levels are sufficient, a covering of microscopic and attached macroscopic algae, such as kelp, may also be found."

Subtidal soft bottoms
"Major characteristics of this ecosystem are an unconsolidated layer of fine particle soft silt, sand, clay, and gravel, high hydrogen sulfide levels, and anaerobic conditions existing below the surface. Macrophytes are either sparse or absent, although a layer of benthic microalgae may be present if light levels are sufficient. The faunal community is dominated by diverse populations of deposit feeders including polychaetes, bivalves, and burrowing crustaceans."

Subtidal plants
"This system is found in relatively shallow water (less than 8 to 10 meters) below mean low tide. It is an area of extremely high primary production that provides food and refuge for a diversity of faunal groups, especially juvenile and adult fish, and in some regions, manatees and sea turtles. Along the North Atlantic and Pacific coasts, the seagrass *Zostera marina* predominates..."

4.3 NOAA Ecosystem Typologies Representation

The seven ecosystem types that are currently not or inadequately represented within the South Slough NERR are: coastal cliffs, coastal shrublands and coastal grasslands in the Shorelands Group; intertidal beaches and intertidal algal beds (hard bottom) in the Transition Areas Group; and subtidal hardbottoms in the Submerged Bottoms Group. The Stewardship Section of the South Slough NERR Management Plan states: "South Slough NERR will work with landowners in the coastal community to explore possible arrangements for transferring to the Reserve stewardship responsibility for estuarine habitats which meet NERR standards and are un- or under-represented within the Reserve."

The Conservation Planning Advisory Committee (CPAC) recommended that the Reserve should work to develop partnerships with other public entities to obtain management responsibilities on properties that offer opportunities to meet Reserve goals. Biogeographic region opportunities were assigned by the CPAC to Area of Interest 6 properties (see text box and Section 3).

Area of Interest 1. Winchester Creek watershed: resource allocation 10%
Area of Interest 2. East-west streams: resource allocation 30%
Area of Interest 3. North watershed: resource allocation 40%
Area of Interest 4. Charleston: resource allocation 15%
Area of Interest 5. South Slough NERR (water and mineral rights) *
Area of Interest 6. Biogeographic region: resource allocation 5%
* resource allocation not assigned

4.3.1 Coos Bay Opportunities

The presence and location of NOAA Habitat Typologies in Coos Bay was assessed through interviews with Reserve staff and local citizens. Typologies within the Coos Bay Estuary and its surroundings are described below, and shown in Figure 4.3.

1) Coastal Cliffs are found just outside the mouth of the South Slough of Coos Bay and outside and to the south of the entrance to Coos Bay. These cliffs have some key nesting habitat used by shorebirds and seabirds. These areas were identified in the interview process by several of the respondents as a key habitat type for this region. These areas are within Area of Interest 6. While the CPAC and the watershed conservation process did not specifically identify any of these areas for partnering or acquisition, there may be opportunities to acquire or manage this type of habitat through coordination with other agencies and current landowners.

2) Coastal Shrublands were identified by SSNERR staff and other interview respondents as being located outside of the reserve, but some habitat is found in the South Slough watershed in the Barview State Wayside, Bastendorf Beach and the North Spit. These areas are in Areas of Interest 3 and 6.

3) Coastal Grasslands were identified by interview respondents and SSNERR staff as being located along the North Spit of Coos Bay and along part of Bastendorf Beach. Again these are located nearby the Reserve but outside of its watershed; they are in Area of Interest 6. These areas provide essential nesting habitat to Snowy Plovers. There is limited habitat of this type remaining along the Oregon Coast which is suitable for Snowy Plovers so the North Spit is one of the few locations where any populations of this bird are able to successfully nest.

4) Intertidal Beaches are described in the NOAA typology in terms of three unique types: a) high energy beaches; b) low energy beaches; and c) mud and sand flats. South Slough Reserve currently does have a very limited amount of low energy beach habitat and some intertidal mud and sand flats. There are a large number of mud and sand flats in the larger Coos Bay Estuary and the low energy beaches can be found also in the Coos Bay Estuary. The high energy beach category is found only in the open ocean setting outside of the mouth of Coos Bay proper. This area experiences large ocean swells and windswept waves in the surf zone of the North Spit as well as Bastendorf Beach. These examples are in Area of Interest 6. There is no lack of high energy beaches along the Oregon Coast and the coordination section points to specific locations were partnering and conservation opportunities may be explored.

5) Subtidal Hardbottom habitat is present in the Coos Bay Estuary, but only a small amount is found in the South Slough reserve. The north portion of the South Slough area has more subtidal hardbottom and some shell bottom. SSNERR staff also identified some subtidal hardbottom outside of the mouth of South Slough in Coos Bay, off Fossil Point; this area is included in Area of Interest 3.

A generalized map of habitats classified in the NOAA typology system is shown in Figure 4.2 for all of the Coos Bay Estuary, including the South Slough NERR. The map was produced from the DEMIS GIS project (ODLCD undated), which used map data from the Oregon Estuary Plan Book (ODLCD 1987). The Consultant Team assigned each habitat type in the Oregon estuary habitat classification to one of the NOAA habitat typologies (see Table 4.2). Note that upland habitat types found in the NOAA typology (Shorelands) do not have equivalents in the Oregon system. These are not exact matches, and the Oregon estuary map data are old (1978-79), so the resulting map shown in Figure 4.2 is known not to be extremely accurate and should be updated at some point.

The habitat map does provide, however, a general picture of estuarine habitats in Coos Bay and the South Slough NERR. Table 4.3 shows the acreages of each habitat type in the Coos Bay Estuary and within the South Slough NERR, using the DEMIS GIS data and the Oregon habitat types converted to NOAA habitat types. The table shows a total of 13,920 acres of estuarine habitat in the Coos Bay Estuary, including 671 acres within the South Slough NERR boundary. The estuarine area within the South Slough NERR is dominated by intertidal mud/sand flats (62%), followed by a much smaller amount of coastal marshes (18%) and intertidal beaches (12%). The entire Coos Bay Estuary is dominated by equal amounts of subtidal softbottom habitat (36%) and intertidal mud/sand flat habitat (36%), followed by coastal marshes (17%).

4.3.2 Biogeographic Region Opportunities

The remainder of this section contains information gathered by the consultant team to help identify stewardship partnering opportunities within the biogeographic region. Our search focused on lands that are either owned by government agencies or land trusts. Included are lands managed to meet a variety of goals, including recreation, natural resource conservation, fish and wildlife production, research and education. This compilation of information is not necessarily complete, and should be added to as additional information becomes available.

A large number of public and land trust properties were identified for this project. GIS[11] map and attribute data were obtained from the Oregon State Service Center for GIS. Ownership, location and property size information is attributed to each property in the GIS project. This information is not very specific, and typically indicates whether ownership is federal, state or another level of government. Additional information for specific properties was obtained from a variety of sources, including Internet sites and personal contact with owner agency staff.

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[11] GIS is Geographic Information System. A GIS project was developed for the Cooperative Plan and delivered to the SSNERR. Data for specific mapped locations or features are recorded, or "attributed" in a relational database within the GIS project.

TABLE 4.2 SOUTH SLOUGH NERR: NOAA AND OREGON ESTUARINE HABITAT TYPOLOGIES (The table shows the relationships between the NOAA NERRS habitat typologies and the Oregon Estuarine Habitat Classification System.)	
NOAA TYPOLOGY	OREGON ESTUARINE HABITAT
I.I. Shorelands	N/A
I.II.A. Coastal Marshes	2.5.11 Tidal Marshes, low salt; 2.5.12 Tidal Marshes, high salt; 2.5.13 Tidal Marshes, fresh; 2.5.14 Tidal Marshes, shrub
I.II.D. Intertidal Beaches	2.1.1 Sand Shore; 2.1.2 Sand/Mud Shore; 2.1.3 Mud Shore; 2.1.4 Shell Shore; 2.1.5 Wood Debris/Organic Shore; 2.4.1 Sand Beach/Bar; 2.4.2 Cobble/Gravel Beach Bar
I.II.E. Intertidal Mud/Sand Flats	2.2.1 Flat, sand; 2.2.2 Flat, sand/mud; 2.2.3 Flat, mud; 2.3.9 Aquatic Bed, seagrasses; 2.3.10 Aquatic Bed, algal
I.II.F. Intertidal Algal Beds (hard bottom)	2.1.6 Shore, cobble/gravel; 2.1.7 Shore, boulder; 2.1.8 Shore, bedrock
I.III.A. Subtidal Hardbottoms	1.1.4 Unconsolidated Bottom, shell; 1.1.5 Unconsolidated Bottom, wood debris/organic; 1.1.6 Unconsolidated Bottom, cobble/gravel; 1.2.7 Rock Bottom, boulder; 1.2.8 Rock Bottom, bedrock
I.III.B. Subtidal Softbottoms	1.1.1 Unconsolidated Bottom, sand; 1.1.2 Unconsolidated Bottom, sand/mud; 1.1.3 Unconsolidated Bottom, mud
I.III.C. Subtidal Plants	1.3 Aquatic Bed

South Slough NERR staff and the Cooperative Plan consultants developed a map of habitats within South Slough, using the NOAA habitat typology (Figure 4.3). Habitat areas were hand drawn on a map of the estuary by South Slough NERR staff and then digitized by the consultants. Digital data for the federal National Wetland Inventory (NWI) were also obtained and added to the GIS project; these NWI wetland habitats are also shown in Figure 4.3. The map should be considered approximate and preliminary because it is partially hand drawn and because NWI data are known not to be completely accurate. This information should be updated over time by future field observation and aerial photo interpretation. The map illustrates that certain habitat types are not represented, or poorly represented inside the current South Slough NERR boundary. Beaches, coastal cliffs, grasslands, rocky intertidal, subtidal algal bed and shell bottom are types in this category.

TABLE 4.3 NOAA HABITAT TYPES IN THE COOS BAY ESTUARY				
NOAA HABITAT TYPE	COOS BAY acres (b)	COOS BAY % (c)	SS NERR acres	SS NERR %
Coastal Marshes	2368.5	17	118.8	18
Intertidal Algal Bed	21.6	<1	0	0
Intertidal Beaches	727.5	5	77.1	12
Intertidal Mud/Sand Flats	5060.4	36	416.9	62
Subtidal Plants	253.8	2	24.6	4
Subtidal Soft Bottoms	5006.4	36	18.2	3
Aquatic Bed (a)	404.1	3	16.2	2
TOTALS	13842.3	100	671.8	101

Table Notes: (a) An Oregon estuary habitat type that could not be assigned to a NOAA habitat type. This habitat could be one or more of the following: intertidal algal bed, intertidal mud/sand flat, subtidal plants.
(b) Includes the South Slough NERR area.
(c) Percentages rounded to the nearest whole number.

Table 4.4 presents a list of public land owners in the biogeographic region, and the number of sites and total acreage owned by each owner.

TABLE 4.4 PUBLIC LAND OWNERSHIP IN THE BIOGEOGRAPHIC REGION		
Agency/Organization/Jurisdiction (listed alphabetically)	No. of Sites	Total Acres (approximate)
Arcata Resource Area - BLM	1	100
BLM - Coos Bay District	2	1,748
Bureau of Indian Affairs (Coquille Indian Tribe)	1	1,100
Bureau of Indian Affairs (Yurak Indian Tribe)	1	28,000
California Department of Fish & Game	10	9,683
California State Parks	10	25,211
City of Arcata	2	1,379
City of Seaside	1	33
City of Warrenton	1	5
Clatsop County Parks	2	400
Coast Range Resource Area - BLM (Eugene District)	1	218
Coos County Parks	3	254
Division of State Lands/NOAA (South Slough NERR)	4	5,201
Lincoln County Parks Department	2	80
National Park Service	2	75,576
Nature Conservancy of Oregon	8	1,495
North Coast Land Conservancy	12	85
Oregon Department of Fish and Wildlife	4	823
Oregon Department of Transportation	17	2,000
Oregon Division of State Lands	tbd	tbd
Oregon State Parks	62	33,537
Salem District Office - BLM	1	106
Siuslaw National Forest	8	37,031
The Nature Conservancy of Oregon	1	47
Tillamook County Parks	3	657
U.S. Fish & Wildlife Service	10	44,887
Wetlands Conservancy	5	141

Habitat information for the Oregon and California coastal areas was obtained from Ecotrust, adapted from Oregon and California GAP analysis. The original habitat classifications conducted by the GAP (Gap Analysis Program) analysis program were created at different scales for Oregon and California. Ecotrust assimilated this information to develop a uniform scale. GIS data were also obtained from The Nature Conservancy for their properties. Figure 4.4 is a sample map showing a very small area of the habitat types mapping obtained from the GAP analysis files, and public lands.[12] Map 4 is a plot of all the habitat and ownership data for the biogeographic region. The habitat types used for the GAP analysis are not the same as the NOAA habitat types; however, the categories are somewhat similar and many can be used to estimate which NOAA ecosystem types are represented. Also note that the GAP analysis habitat types are somewhat different for Oregon and California. These maps were produced from the GIS project built for the Cooperative Plan, and the GIS can be used to query the database for the purposes of identifying areas of interest.

Appendix I contains a biogeographic region opportunity matrix developed for this project. The matrix contains the following data fields for each listed property:

- name of the land-owning organization
- property name and location
- relative distance from South Slough NERR
- acreage (based on information provided by organization contact person)
- habitats on the property (NOAA typology)
- current management objectives for the property
- names, phone and fax numbers, email addresses for contact person(s)
- availability of data or a management plan
- comments - general comments by the matrix preparer

The information contained in the GIS project is directly linked to the Opportunities Matrix. Ownership, habitat and acreage data are attributed to each property in the GIS project, and presented in tabular format.

Additional information for many of the properties in the matrix is provided in the same Appendix (I) in the form of notes based on conversations with the contact persons. The information presented in the matrix is intended to be used to identify potential opportunities for regional stewardship, research and/or education partnering with land-owning agencies.

The information in this Section illustrates that there are many public coastal lands in the Mid-Pacific area of the Columbian Biogeographic Region, and that the available information concerning habitat types on these lands is extremely variable. The greatest values of the information compiled for this project are the contacts for each land management agency, the identification of data sources that are available, identification of property ownership, and a beginning understanding of habitat available that is somewhat larger scale than what is needed for the South Slough NERR program.

4.4 GIS Project Information

A GIS project was produced as part of the Cooperative Plan development. The GIS project is provided to the South Slough NERR on CD-ROM, and a copy is also provided to EcoTrust, which is working under contract to South Slough NERR to develop a GIS system at the Reserve.

GIS project source data summaries and data dictionaries are included as Appendix M.

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[12] Map 4.4 illustrates a difficulty inherent in GIS mapping: printed maps with a large number of data categories can be difficult to interpret due to the similarities between color shades used for coding. When working with the GIS project on a computer, it is easy to identify specific categories by selecting the point or polygon of interest and querying the associated database.

5 PLANNING AREA SUMMARY AND OPPORTUNITIES

5.1 Introduction

The South Slough NERR Management Plan states that "The present South Slough NERR administrative boundaries do not adequately advance the NERR system goals of both representing bioregional estuarine habitat types, and maintaining them as long-term sites for research and education " (SSNERR 1994).The objectives of the Planning Area Summary And Opportunities section are to characterize the conservation potential for landscape attributes in Areas of Interest 1-5 (South Slough Watershed) and examine their long-term landscape trends.

5.2 Planning Area Landscape Characterization

The CPAC- designated Planning Area, within which five Areas of Interest have been identified, is the same area that delineates the South Slough watershed (see Figure 3.1). The South Slough watershed uplands, with the exception of the developed areas around Charleston and along the north part of Seven Devil's Road, consists almost entirely of forest lands. Some agricultural lands are still managed for cattle grazing in the upper watershed's Winchester Creek valley. The following is a detailed description of each of the Planning Area's Areas of Interest (information in Figures 3.1, 4.2 and 4.3 is included in the following discussion by reference; the reader should refer to these resources as needed).

5.3 Planning Area Data

Area of Interest 1 is the Winchester Creek subbasin located at the south end of the South Slough. This area of interest is a high priority because of the size and sensitivity of the watershed, and its position relative to the current land holdings of the South Slough NERR. There are 4,050 acres within this area. The area is zoned for forestry and this is the primary use outside of the Reserve boundaries. There is an area zoned for Exclusive Farm use in the bottomlands just inside the Reserve boundary in the southernmost portion of the Reserve. This area does not have any mapped or referenced historical or culturally significant areas but archaeological surveys have not been conducted throughout the watershed.

The general landscape of this area is mainly forest with a small amount of agricultural pastureland. The forest in this area is managed on a sustained yield basis by the Coos County Forestry Department on a 60-80 year rotation. The forest in this area was intensively railroad logged around 1910 and was not replanted. The area was burned and grazed and subsequently regenerated naturally. The trees which came back through ingrowth are made up of a mix of species including Sitka spruce, Douglas fir, western hemlock, Port-Orford-cedar and some western red cedar. The dominant species is Sitka spruce. Currently when areas are harvested, this is the mix of species the County re-plants.

Area of Interest 2 was identified by the CPAC as the area located adjacent and to the east and southwest of the reserve. This area consists of 4,467 acres and is zoned for forestry. The existing landscape is forest with a mix of rural residential development. The forests in this area are managed as industrial forest lands by several timber companies with a cutting rotation of about 40-60 years. The majority of trees in this area are only in the 0-20 year age class. The majority of the trees are Douglas fir with some planted spruce and infill of hemlock, red cedar and Port-Orford-cedar. The area is very productive timber land with some very fast growing trees.

Area of Interest 3 is adjacent to the north end of South Slough and located on both the east and west side of the Slough, and also includes the slough itself. This area extends slightly outside of the South Slough into Coos Bay proper in order to include an area of hydrologic influence. There are 7,150 acres of land and estuarine surface in this area, including areas adjacent to the estuary and forested areas higher in the watershed. This area is a mix of forest lands, rural residential, and urban

residential. The industrial forest lands in this area are managed primarily by private timber companies with a similar management practice as the east and westside stream subbasins. The area to the northeast of South Slough has some residential development at an urban density, and the area of Charleston northwest of South Slough has some commercial and industrial development. Most of this development has been existent for over 20 years.

Area of Interest 4 is the town of Charleston, which is the most developed and urbanized area in the immediate vicinity of South Slough. The zoning for this area is classified as a rural service center; it consists of 98 acres. In terms of natural resource values, this area is quite limited as it has been heavily developed and much of the land is covered with impervious surfaces. Much of the water and shoreline areas have been modified as well, with riprap or seawall covering the banks and marinas covering water areas.

Area of Interest 5 is the land and water inside the current South Slough NERR administrative boundary.

Area of Interest 6 is the Lower Columbian biogeographic region.

Table 5.1 characterizes each of Areas of Interest 1 through 4 using information derived from available sources. Much of this information has been compiled into a GIS format by the Oregon Department of Land Conservation and Development Coastal Program Office (ODLCD undated). This GIS effort is the first phase of work in the Dynamic Estuary Management Information System (DEMIS) project that ODLCD supported in 1998. This is a comprehensive work-in-process to provide useable planning and research information about all of Oregon's estuaries. The Coos Bay Estuary watershed was the first estuary looked at in this project and as a result a large amount of data has been compiled specific to the Coos Estuary, including the watershed basins of the South Slough of Coos Bay.

An analysis step was necessary to interpret the information in the DEMIS database for each area of interest. Since the information is in a GIS format, this analysis step involved using the prioritized area of interest theme or layer as a visual overlay over each of the themes listed in Table 5.1. Information which showed up on the map was pulled from the database or attribute table specific to the theme. This was done for each priority area of interest to assemble the table.

5.3.1 Valuation Parameters

General information was gathered to provide some estimates of land values within the area around the South Slough NERR. To accomplish this task, the Assessor's Office at Coos County was researched for general parameters of assessed values for the various property types (zoning) within the general focus area. These parameters are outlined as follows:

EFU (Farm) zone:	±$1,000 - $2,000/acre
F (Forest) zone:	±$300 - $1,000/acre
RR-2 (Residential, 2 acre minimum) and RR-5 (Residential, 5-acre minimum)	±$5,000 - $10,000/acre

It must be emphasized that these are simply general parameters and must only be used as such. They are mainly typical of larger tracts without any special amenities such as bay/slough frontage, view, etc. Values for smaller parcels can range higher than those shown above, and other factors can also vary the value ranges considerably, such as size, access, view, urban proximity, potential number of home sites, and others. Individual properties are unique and thus specific valuations are beyond the scope and budget of this project. If a more specific valuation is needed, South Slough NERR should select perhaps four or five representative parcels that are among the top priorities and have them appraised.

In the case of forest lands, the value can vary widely depending on whether or not the site is already harvested, whether or not reforestation is necessary, etc. The value of the timber, if any, on these types of tracts is separate and would need to be appraised by a qualified timber cruiser.

The values of these types of properties, according to the County Assessor's office, have not increased significantly in recent years due to the depressed economic conditions in the County.

5.3.2 Mineral Rights

The consultant team completed an initial search of County records for the ownership of mineral rights for the existing South Slough NERR parcels (see Table 5.1). This information was previously unknown for the South Slough NERR properties. Mineral rights for other properties in the Planning Area should be determined during the acquisition process for specific parcels.

Mineral rights for some of the parcels in the South Slough NERR were not released by the original owners at the time of property sale to ODSL (Brenna 1999). A list of parcels within the South Slough NERR administrative boundary, and owned by the State of Oregon, was provided by Oregon Division of State Lands[13]. The parcels on this list were each assigned an arbitrary number ("parcel number" in Table 5.1), and were looked up at the Coos County Assessors Office to determine mineral right ownership. If no mineral right owner was listed, it was assumed that the State of Oregon is the owner. Specific data gathered for each land parcel were recorded on data sheets developed for this project, and tax lot map copies were attached to the data sheet. These data sheets are filed at the South Slough NERR administrative offices.

If mineral rights were not mentioned in the deed, the question of who owns the mineral rights can become very complex. Legally, it may be that certain forms of deeds transfer all rights if none are specifically excluded. In other cases, mineral rights may be under a separate ownership, such as Coos County.

The data presented in the table show that some parcels have mineral rights owned by entities or individuals other than the State of Oregon. Some parcels show Coos County holding mineral rights. These mineral rights should be discussed with the holders of record, and agreements reached concerning either their transfer to the state, or, at a minimum, a notification procedure prior to implementation of any plan to explore for, test or extract minerals.

For future property acquisitions, any mineral rights identified in the title search should be transferred to the state.

5.3.3 Water Rights

The question of water rights can also be very complex and may be subject to certain interpretations or restrictions, such as priority dates or other factors. For purposes of this task, we limited our search to the question of whether or not there are water rights included for each parcel within South Slough NERR; this decision was based on project time and budget constraints. The South Slough NERR Interim Director (1999) is also compiling information on water rights.

Records at the Coos Bay/North Bend Water Board and Coos County were searched to find water rights for each parcel. Water rights filed by the Water Board are indicated in Table 5.1 as "municipal." As seen in the table, all parcels are listed as municipal rights; some parcels also have other individuals or entities listed. Specific data gathered for each land parcel were recorded on the same data sheets used for the mineral rights task; copies of the water right record were also attached to the data sheets. These data sheets are filed at the South Slough NERR.

For future property acquisitions, any water rights identified in the title search should be transferred to the state.

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[13] Data printout: "South Slough NERR Properties," author: Greg Willnow; dated May 21, 1997. A copy of the printout is included as Appendix O.

5.3.4 Planning Area Ownership

An approximate map of property ownership in the South Slough NERR Planning Area is shown as Figure 5.1. Ownership in Area of Interest 1, Winchester Creek Watershed, is Coos County. Area of Interest 2, East/West Streams, has some Coos County lands, private timber lands (G-P, Menasha, Roseburg Timber) and a few other private parcels. Area of Interest 3, North Watershed, has a mixture of private timber lands, a number of other private holdings, a small Coos County parcel, and Coos Bay/North Bend Waterboard land in the Joe Ney Slough Watershed.

5.4 Landscape Attributes Selection Criteria

The public involvement portion of the Cooperative Plan development process focused primarily on protecting those lands already part of the South Slough NERR; those state-owned lands within the current South Slough NERR administrative boundary. The focus of the CPAC was to further buffer the Reserve through acquisitions in the South Slough watershed in the designated Areas of Interest.

To guide the selection of properties within each Area of Interest, the CPAC developed selection criteria based on landscape attributes that satisfy Reserve stewardship and programmatic needs. Included landscape attributes are the missing NOAA habitat typologies (discussed in Section 4), headwaters of South Slough watershed subbasins only partially controlled by the Reserve, mineral and water rights of current South Slough NERR holdings, shoreline access areas, properties with biologically, historically or aesthetically important features, and a variety of estuarine-related habitats. The complete selection criteria are presented in Table 5.3.

5.5 Long Term Trends

An important consideration for implementation of the Cooperative Plan is to predict, to the extent possible, long term trends for identified areas of interest. Trends might be in the areas of predicted changes in natural processes, presence and threat posed by invasive exotic plant and animal species, development plans, timber harvest or mineral extraction plans, etc. An understanding of these trends will be valuable information in the acquisition planning process.

A long-term management issue in all Areas of Interest is the existence and spread of invasive root rot. Root rot of Port Orford cedar is caused by the soil fungus *Phytophthora* lateralis. The fungus infects the roots of affected trees, spreads to the inner bark and quickly kills the tree.[14] Since the fungus spreads through the soil from infected forest areas, the best management practices currently are to limit the spread of infected soils by equipment, foot, and recreational vehicle traffic.[15]

The east and westside stream basins Area of Interest (2) also has a long-term forest management issue. Swiss needle cast, a fungus-caused disease *(Phaeocryptopus gaeumannii)* was found to be affecting 393,000 acres of the Oregon Coastal fogbelt in 1997.[16] Since douglas fir has a high market demand, many areas were planted exclusively with this species. The Swiss needle cast was able to spread quickly and slows the growth of these trees to a degree that affects the management of the forest by greatly increasing the time of producing marketable Douglas fir. The solution the timber companies have been using is to plant a mix of species more like those that occur naturally, similar to the planting the County does. An additional long term trend in industrial forest practices in this area involves the conversion of hardwood to softwood timber types. In many areas which were disturbed through earlier logging or land movement, red alder is the first tree species to return. These areas are being replanted with softwood species such as Sitka spruce and other softwoods which are more marketable than the alder.[17]

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14 Mike Barrett, Assistant Coos County Forester, Telephone Conversation on August 10, 1999.

15 For more information see United States Department of Agriculture Forest Pest Leaflet 131 at http://www.fs.fed.us/r6/fid/fidls/fid131.htm.

16 For more information on Swiss Needle Cast see http://www.cof.orst.edu/coops/sncc/hansen.htm

17 Bialozynski, Lee. Inventory Forester/GIS Coordinator, Georgia-Pacific Corporation. Telephone Conversation with Peter Britz, August 10, 1999.

TABLE 5.3 LANDSCAPE ATTRIBUTES SELECTION CRITERIA	
LANDSCAPE ATTRIBUTE OR TYPE	PURPOSE FOR INCLUSION ON LIST
Coastal Cliffs (3, 6)*	missing or under-represented NOAA typology
Coastal Shrublands (3, 6)	missing or under-represented NOAA typology
Coastal Swamps (6)	missing or under-represented NOAA typology
Coastal Grasslands (3, 6)	missing or under-represented NOAA typology
Intertidal Beaches (3, 6)	missing or under-represented NOAA typology
Intertidal Algal Beds (3, 6)	missing or under-represented NOAA typology
Subtidal Hardbottoms (3, 5)	missing or under-represented NOAA typology
Headwaters of South Slough Drainages (1, 2, 3)	enable comparative studies of watershed management techniques; maintain water quality for South Slough estuary
Watersheds Tributary to South Slough Estuary (1, 2, 3)	Buffer/protect current Reserve land holdings
Tidal Shorelands in the South Slough Estuary (3, 4, 5)	maintain water quality in South Slough estuary
Mineral & Water Rights for Current South Slough NERR land holdings (5)	Unify Reserve ownership rights
Shoreline Access Points (3, 4, 6)	Maintain access to bay and estuary for Reserve educational tours and research activities
Coastal Uplands; with or without timber (1, 2, 3, 6)	Provide increased opportunities for testing forest management techniques
Developed Shoreline Areas (3, 4, 6)	Integrate Reserve services with local economic development, including ecotourism
Areas that Ensure Conservation of Aesthetically and Culturally Important Sites, Views and Sounds (1, 2, 3, 4, 6)	Maintain the quality of natural and historic landscapes for educational and interpretive activities, community enjoyment and ecotourism
Areas that Contain Biologically and Archaeologically Important Resources (1, 2, 3, 4, 6)	Protect and provide research and educational opportunities: on sensitive plant and animal species, in areas with large plant and animal populations, in areas with high diversity of plants and animals; Protect and provide research opportunities at archaeological sites
Ranch or Farm Located on a Former Tidal Marsh (1, 6)	Provide research opportunities for research on economically and ecologically effective agricultural practices and land uses
Areas that Include Fish and Shellfish Habitat (3, 4, 6)	Provide additional opportunities for fish and fisheries research; provide additional opportunities for salmon habitat restoration

* Numbers denote which area of interest has any presence of this landscape attribute or type (see Figure 3.1).

1. Winchester Creek watershed: resource allocation 10%
2. East-west streams: resource allocation 30%
3. North watershed: resource allocation 40%
4. Charleston: resource allocation 15%
5. South Slough NERR current ownership
6. Biogeographic region: resource allocation 5%

The Area of Interest adjacent to the north end of South Slough (3) has an area zoned for a destination resort, and the Brown's Cove area is experiencing residential infill.

6 OPPORTUNITIES FOR FUNDING AND PARTNERSHIPS

6.1 Funding Sources

There are a number of different grant sources that may be appropriate to provide funding to South Slough NERR for land acquisition or other implementation actions in this Cooperative Plan. This section provides a list of private and public programs or foundations with potential interest in augmenting resources provided by the Chalmer Gustafson bequest.

6.1.1 Potential Funding Through Private Foundations

It is important to find a good fit between the interests of a particular foundation and the activities or projects for which funding is being requested. In the case of South Slough NERR, private foundations that support environmental, scientific, and nature-oriented activities are most likely to provide support. There are foundations with these interests in Oregon and throughout the Northwest, and many focus specifically on giving within the Northwest region.

The Paul G. Allen Forest Protection Foundation, the Bullitt Foundation, and the Environmental Federation of Oregon are examples of some of the larger Pacific Northwest foundations that provide funding for environmental purposes. Of the regional foundations that support environmental purposes, there are a number that have specifically supported land acquisition in the past. In the case of the Allen foundation, they only support acquisition. There are also many other regional (i.e. the Packard Foundation) and local foundations that are interested in supporting environmental programs or projects, rather than land acquisition.

The list of Pacific NW foundations in Table 6.1 is by no means exhaustive. There are many other foundations, even just within Oregon. The foundations included on this list specifically target grants in Oregon or the Northwest, have a background of supporting environmental and/or educationally oriented activities, and generally have the ability to provide larger grants ($50,000+). Even though almost all of these organizations have exhibited the ability and willingness to provide larger grants, they also regularly support smaller grants as well. Finally, even though the Bay Area Sportsman's Association is smaller than the other foundations, it has been included because of its proximity to the reserve and its interest in granting to Coos Bay organizations.

This list is intended to be a starting point for the Reserve, and is not meant to discourage Reserve staff from following up other grant opportunities that they may be aware of or interested in pursuing.

In terms of land acquisition, the Paul G. Allen Forest Protection Foundation is probably an excellent potential funding source, as is the Oregon Wildlife Heritage Foundation. The Meyer Memorial Trust is very large (it gives away millions of dollars each year), and often gives large grants ($200,000+). It seems likely that this organization would support South Slough NERR in some way, whether for land acquisition or some other purpose, such as a new visitor's center or interpretive trail improvements. The Packard Foundation, although not listed in the table, is also a possible funding source. Although the foundation focuses on northern California, they do provide national and international grants. Their website (www.packard.org) should be monitored for the appearance of new "Cascadia" grant guidelines. If the guidelines are compatible with SSNERR's acquisition goals, this may also be a good source of funding.

TABLE 6.1 PRIVATE FOUNDATION GRANT SOURCES			
Name	*Address*	*Phone*	*Areas of Interest*
The Autzen Foundation	P.O. Box 3709 Portland, OR 97208	(503)226-6051	Youth, Education, Nature. Must be 501(c)(3) based in OR.
Bay Area Sportsman's Association	P.O. Box 1624 Coos Bay, OR 97420	(541)756-6932	Grants to Coos County organizations. Smaller in assets than some others, but important because of geographical focus.
The Bullitt Foundation	ebundy@bullit .org for questions regarding Rivers, Wetland, and Estuaries. (Emory Bundy)	info@bullitt.org	Committed to protection and restoration of environment of Pacific Northwest. Must be non-profit in WA, OR, ID, western MN, southeastern AK, and BC. Areas of support include Rivers, Wetlands, and Estuaries; Forests and Land Ecosystems; and Public Outreach, Education, and Capacity Building.
Clark Foundation	255 SW Harrison #GA2 Portland, OR 97201	(503)223-5290	Supports organizations with educational, charitable, cultural, religious, or scientific purpose. Must be 501(c)(3) based in Portland, OR area. Have supported projects on the Coast and in Bend.
The Collins Foundation	1618 SW Firrst Ave #305 Portland, OR 97201	(503)227-7171	Purpose is to operate and use funds exclusively for religious, charitable, and educational purposes within the State of Oregon. Has supported organizations such as The Nature Conservancy and Pacific Rivers Council.
Environmental Federation of Oregon	P.O. Box 40333 Portland, OR 97240	(503)223-9015	Federation of 501(c)(3) organizations. Raises money through payroll deductions at employers in throughout Oregon. Provides grants to member organizations only. May want to look into possibility of Friends of South Slough, Inc. joining – EFO includes Friends of Opal Creek, Corvallis Environmental Center, and Tualatin Riverkeepers, as well as larger groups such as The Nature Conservancy and National Wildlife Federation.
Intel Foundation	Public Affairs, JF3-107 5200 NE Elam Young Pkwy. Hillsboro, OR 97124	(503) 264-5666	Special focus on K-12 science and engineering education projects in Oregon. Four main interests: Improve quality of life in communities with an Intel presence, advancing science and engineering education, promoting public understanding of electronics technologies, and promoting women and minorities in science and engineering careers.
Jackson Foundation	P.O. Box 3168 Portland, OR 97208	(503)275-4414	Broad charitable purposes. Prefer to give priority to one-time special projects or developmental projects. Must be 501(c)(3) based in OR. Only considers projects outside of Portland metro area if of statewide appeal rather than local concern.

TABLE 6.1 PRIVATE FOUNDATION GRANT SOURCES			
Name	*Address*	*Phone*	*Areas of Interest*
The Samuel S. Johnson Foundation	P.O. Box 356 Redmond, OR 97756	(541)548-8104	General purpose. Interests included education, science. Supports historical and museum interests (except sports or arts),including education outreach, preservation, restoration, interpretation.
Lamb Foundation	P.O. Box 1705 Lake Oswego, OR 97035	(503)635-8010	Supports education; social services; arts and humanities; environment; religion, spirituality, and peace; and youth programs. Has supported River Network and other groups.
The Lazar Foundation	510 SW Third Ave #416 Portland, OR 97204	(503)225-0265	Supports environment and population. Environmental interests include: ecosystem level management of natural resources, grassroots actions, biographic regional environmental projects, coalition building. Does not support capital projects, research, land acquisition, or routine operating costs.
Meyer Memorial Trust	1515 SW Fifth #500 Portland, OR 97201	(503)228-5512	General Purpose Grants programs supports projects related to arts and humanities, education, health, social welfare, and a variety of other activities. Prefers projects with broad or long term impact on significant issues. This is probably the largest foundation in Oregon, and they support many, many activities and projects in Oregon and Clark County, WA.
The Oregon Community Foundation	621 SW Morrison #725 Portland, OR 97205	(503)227-6846	Broad general purposes. Four primary objectives: Strengthen families, promote quality educational programs for children and young people, increase cultural opportunities, preserve and improve Oregon's livability through citizen involvement. Must be 501(c)(3) in Oregon.
Oregon Wildlife Heritage Foundation	P.O. Box 8301 Portland, OR 97207	(503)255-6059	Collects and disposes of money and other property for purpose of protecting, enhancing and managing fish and wildlife. Primarily for fish and wildlife capital projects, including land acquisition.
The Paul G. Allen Forest Protection Foundation	110 110th Ave NE Suite 550 Bellevue, WA 98004	more info on-line at www. paulallen.com/ foundations	Founded in 1997 to assist in acquisition and conservation of forest land in order to preserve needed wildlife habitat, and where possible, to provide public recreational access. Also, acquired properties may be used for scientific research and educational use. Works with established conservancies to acquire properties. Must be 501(c)(3). More information and application forms available at www. paulallen.com/foundations

As the list above indicates, many groups support environmental education programs, and in particular youth environmental programs. This broad category often includes interpretation and development of interpretive exhibits or programs. Other groups will support capital projects, habitat restoration, or other areas that may be compatible with South Slough NERR mission and goals for expansion.

501(c)(3) Requirements

The greatest issue for South Slough NERR in obtaining private foundation funding is that many foundations fund only 501(c)(3) non-profit organizations (sometimes through specific rules or sometimes just based on a general preference). For example, the Paul G. Allen Forest Protection Foundation funded two property acquisitions through the Trust for Public Land in 1998: the Canyon Lake Creek acquisition and the Grouse Ridge acquisition. In 1998, the Foundation also funded the Munson Creek Falls acquisition through the River Network and the Middle Fork Snoqualmie acquisitions through the Land Conservancy of Seattle & King County. The grant guidelines for the foundation state that "Applications will be considered only from organizations which have been ruled to be tax-exempt under Section 501(c)(3) of the Internal Revenue Code and which are not private foundations as defined in Section 509(a) of the Code." In contrast, the Meyer Memorial Trust has given grants both to 501(c)(3) non-profits and to government bodies, such as Clackamas County and the Cities of Echo, Florence, Mt. Angel, and Shaniko, among others.

One way to meet the 501(c)(3) requirement is for Reserve staff or volunteers to prepare grants and apply through Friends of South Slough, Inc. (FOSS), which is a 501(c)(3) tax exempt organization. In the past, several grants have been applied for through FOSS. This effort could be formalized and expanded in the coming years. The other alternative is to work with a qualified non-profit organization, such as The Nature Conservancy (TNC), Trust for Public Lands (TPL), River Network, or one of the other conservation groups listed previously.

6.1.2 Federal Funding Sources

There are two categories of Federal funding: congressional appropriations and agency grants.

Congressional Funding Opportunities. Congressional funding opportunities usually require coordination with congressional representatives. Congressional funding generally involves an identified amount of funding that is targeted at achieving a specific purpose for a specific applicant. Congress has traditionally approved special bills that authorize such funding. The success of achieving an award through this process is based upon the knowledge, expertise, and position of the Member of Congress proposing the funding, and the general merit of the use of the special appropriation. This type of funding opportunity should not be overlooked in the overall list of possible funding sources. Generally, when funding is appropriated through Congress for specific projects, it is passed through a Federal agency.

There are a number of reasons that could provide compelling arguments to appropriate funding specifically for South Slough NERR, such as estuary preservation, salmon habitat protection or enhancement, and water quality protection, among numerous others. To achieve success on obtaining funding of this type, support would be needed from Oregon's congressional representatives and others.

There are several steps that SSNERR can take to attempt to gain Congressional funding. Reserve staff should begin by educating area Congressional representatives at organized meetings and presentations specifically targeted at explaining the value of the Reserve to Oregon and to the country as a whole. Repeated contacts with local staff to update them on Reserve needs can also

be very valuable. Through contacts with representatives and their local staff, SSNERR can request that specific funding be allocated to the Reserve through an appropriation. South Slough NERR should continue to build relationships with area representatives and to lay the groundwork for funding in this manner.

Agency Grants. Since South Slough NERR receives some annual funding from NOAA, and since South Slough NERR staff is well acquainted with Federal agencies and the various sources of Federal grant funding, the research that went into this Cooperative Plan was focused more on public/private partnerships and private funding sources, an area in which South Slough NERR staff has had less experience. However, an overview of some Federal funding sources is included here for future reference.

Funding Through NOAA. The NERR CFR empowers NOAA to provide additional funding for construction, acquisition, and other projects. However, funding is only available if it is appropriated in the budget each year. In recent years, NOAA has not had acquisition funds made available through the Federal budget. The current Federal FY 2000 budget includes about $10,000,000 in acquisition funding for NOAA. If the budget is approved, NOAA may have funding available for acquisition.

The NERR CFR sets the maximum amount of Federal assistance that can be awarded for the acquisition of land and waters or interests therein at $5,000,000 for any one National Estuarine Research Reserve. As long as less than $5,000,000 has been expended by the Federal government to date for South Slough NERR acquisitions, South Slough should be eligible if NOAA has funding available for acquisitions. South Slough NERR has received approximately $3.5M from NOAA acquisition funds to date (1999), leaving a total of $1.5M. The pending Coastal Zone Management Act reauthorization, however, is likely to eliminate the $5M cap, allowing NOAA to provide funding beyond that level. (Pers. Comm. Rick Hayes, SSNERR, August 13, 1999)

For all Federal acquisition funding, the NERR CFR (15 CFR Part 921) requires a non-federal match of 50%. If South Slough NERR is able to obtain additional acquisition funds through NOAA, the Gustafson bequest funds can be used to provide the required match. Further evaluation of this potential funding source should occur prior to expending significant portions of the Gustafson bequest. Any leverage of the Gustafson funds will expand their purchasing power, but if there are other available sources of funding that require a smaller match, they may be more valuable to South Slough NERR in providing greater leverage.

USFWS Coastal Wetlands Conservation Grants

South Slough NERR has already received two grants through this program for restoration projects. The match requirement is 50% for restoration, and 25% for acquisition. Under its current rules, the program would permit acquisition of land. However, South Slough NERR staff believe that this grant program may sunset soon. The Reserve is currently included in a joint venture application for funding with the Coos Bay Watershed Association, Ducks Unlimited, and other conservation groups. If approved, South Slough NERR's share of the funding would be $100,000.

Natural Resource Conservation Service Wetland Reserve Program

South Slough NERR has also received grants through this program in the past. The program focuses on restoration aspects, but South Slough NERR staff believe that it may be possible to apply for funds in order to purchase conservation easements. The program will most likely not support fee simple acquisitions. For its current grant through this program, South Slough NERR is partnering with Ducks Unlimited.

National Fish and Wildlife Foundation

South Slough NERR has submitted grant applications in the past to this program, but has not received funding. Acquisition funding may be possible through this program. The match requirement is 75%, which does not leverage local money as much as other funding sources could.

Environmental Protection Agency Grants

South Slough NERR currently has grants from EPA for monitoring. There may be funding available through the EPA for acquisition. Since SSNERR has been building a history with EPA, Reserve staff may be able to work with EPA staff to come up with acquisition funding.

North American Wetlands Conservation Act Grant

This grant is administered by the U.S. Fish and Wildlife Service. Its purpose is to protect, enhance, restore, and manage wetland ecosystems and migratory bird habitat. A portion of the funds must be spent on projects in Canada and Mexico (at least 50%, but no more than 70%). The match requirement is 50%, unless the expenditure occurs on Federal property. Because one of the goals is "protection", land or easement acquisition should qualify for funding.

Open Space and Livability Initiative

President Clinton and Vice President Gore announced their Open Space and Livability agenda earlier this year, and Vice President Gore has made livability a cornerstone of his Presidential campaign. Although there is currently no Federal funding for this initiative, it may be very promising in future years, particularly if Mr. Gore is elected President. This could be a source of funds for land acquisition, since South Slough certainly provides valuable open space. The recent focus on livability may also make it easier to obtain Congressional funding for land acquisition.

Coastal Zone Management Act

The Coastal Zone Management Act provides funding to NOAA for the Reserves, including funds for construction and acquisition. South Slough NERR has regularly received grants for construction and acquisition through NOAA. There may also be a separate appropriation through the CZMA for completing Reserves. Other sections of the CZMA allow for acquisition of coastal access and provide funds for special area management program (potentially including acquisition). The Oregon Department of Land Conservation and Development may be able to assist South Slough NERR in determining if any of the proposed acquisitions qualify for funding through other sections of the CZMA.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) was created in 1964, and is authorized to receive up to $900 million each year. The program uses revenues from offshore oil and gas receipts for the purchase of land and water to support the creation of national and community parks, forests, wildlife refuges, and open spaces. There are two programs through LWCF: the federal and the state programs. Through the federal program, funds are used to acquire land, both to create new federal recreation lands and to expand existing ones. The state program is a matching grant program, with a one-for-one match required. Funds allocated to the state program are divided among the states and may be used for acquisition of land; for building and maintaining parks, trails, and access improvements; and for wildlife areas. Both funds are administered through the National Park Service.

Since its inception, LWCF has provided more than $8.8 billion to the state and federal programs. State matching fund grants have averaged about $100 million per year over the life of the program. However, the grants program has not been funded since 1995. The current Senate budget would appropriate $237 million for LWCF, and the House budget would appropriate $205 million. Neither of these budgets includes funding for the state matching grant program. On a more positive note, there is some movement within Congress to fund LWCF permanently. Four funding initiatives are under consideration. Each of these would provide additional funding. Some of the initiatives would change the current practice of dividing state matching grant program funds among the states to a competitive grant process.

LWCF Federal Program. The federal program has added a significant amount of land to National Parks, National Forests, National Wildlife Refuges, and other national open space resources. The federal program has been funded even when the state program has not. The National Park Service administers the funds. A preliminary review of the funding indicates that the National Estuarine Research Reserves have not received any of this funding. It may not be possible to fund acquisition through the LWCF federal program at the NERRs because the Reserves are a NOAA program and a Federal/State partnership. However, South Slough NERR staff should explore the LWCF federal program with area congressional representatives as a potential source of acquisition funding.

LWCF State Program. The state program could also provide potential funding for South Slough NERR land acquisition, if the grants program receives funding again. However, the one-for-one match requirement provides less leverage for the Gustafson bequest than other funding sources might be able to provide.

To be eligible for grants through the state program, each state must prepare and update a statewide recreation plan that is approved by the National Park Service. The plan has to include priorities with which all grant applications must comply. Each state also has to develop a selection process that includes criteria and a method for scoring and ranking grant proposals.

This process may change in the future, because a national competitive grant program has been proposed. Some proposals maintain the current state grant funding procedure, and some eliminate the state allocations altogether. However, there are proposals that maintain a portion the state allocations and devote the remaining funds to a national competitive grant program.

South Slough NERR staff should follow up with area congressional contacts and with the Oregon Department of Parks and Recreation to monitor the status of LWCF state funding, and should consider making an application if funding becomes available.

6.1.3 State Funding Sources

Oregon Watershed Enhancement Board (OWEB). OWEB, located within the Water Resources Department, provides grants for watershed-related projects, and in the past has mainly funded watershed improvements. The level of funding depends upon how much money is allocated to OWEB in the State budget. Grants are awarded biennially. The local Watershed Council could also qualify for OWEB grants.

Contact information: OWEB
Governor's Natural Resources Offices
Public Services Building
Salem, OR 97310
Ken Bierly, (503)378-3589

OWEB received an appropriation of $30 million from the State for the 1999-2001 biennium (pers. comm. Ken Bierly). OWEB has initiated a program to allow the use of grant funding for acquisition, and the grants require a match of 25%. As of yet, there are no limits on the amount of funding that can be requested by any one applicant.

As an example, South Slough NERR could request $3,000,000 in OWEB funds and match it with $1,000,000 in Gustafson bequest funds to create a total project of $4,000,000. Even with a smaller request, an approved OWEB grant could substantially increase the uses of the Gustafson funds because of the minimal 25% match.

This funding source is certainly the most immediately promising publicly funded opportunity to leverage the Gustafson bequest into an acquisition program that could potentially include millions of dollars. Opportunities such as this one would go far in assisting South Slough NERR to expand the current boundaries of the Reserve to meet its mission and goals.

In order to obtain OWEB funding, the grant request and acquisition program must be designed to achieve OWEB goals as well as South Slough NERR goals and missions. A project plan should be in place, and a local partner, such as Friends of South Slough, identified. Through the frequent contacts, OWEB staff can be kept abreast of developments at South Slough and provide input on what adjustments are needed to the initial grant request to ensure success.

Developing a South Slough NERR acquisition program that parallels the grant submission standards will give South Slough NERR an advantage in the application process. This can be accomplished though close coordination and thoughtful decision making.

Oregon State Lottery. The Oregon State Lottery fund supports economic development, public education, parks, and salmon restoration. The State Legislature allocates the lottery funds. South Slough NERR or DSL could seek support from lottery funding for land acquisition and other projects at South Slough NERR.

Lottery funds are allocated to a number of uses including parks and salmon protection. Funding begins through coordination with the local field representative located in Coos Bay. The field representative would coordinate with other state agencies on the possible use of lottery grants or assistance.

Department of Land Conservation and Development (ODLCD). ODLCD has limited funding available. Typically, funding is targeted toward land use questions such as Goal 5 resource protection standards or transportation related issues. Funding may be available in small increments, typically less then $50,000. ODLCD has an Ocean/Coastal Division.

Contact information: ODLCD
Ocean/Coastal Division
635 Capitol St. NE
Suite 200
Salem, OR 97301-2540
Eldon Hout, (503)373-0050

State Historic Preservation Office (SHPO). The State Historic Preservation Office can be another source of funding. If there is interest in pursuing any action with the archaeological sites in the Reserve, SHPO may have resources available.

Contact information: SHPO
1115 Commercial St. NE
Suite 2
Salem, OR 97301-1012
James Hamrick
Deputy State Historic Preservation Officer
(503) 378-4168x231

6.2 Partnerships With Conservation Groups

There are a number of conservation groups with well-established programs in Oregon, including local offices of national organizations. Table 6.2 contains information about local conservation groups with interests that overlap with South Slough NERR mission and goals. All of the environmental groups included on the list could provide strong partnerships for South Slough NERR. South Slough NERR staff may find it worthwhile to partner with one or more of these established conservation groups to undertake acquisitions, seek partners in education programs, complete ecological restoration, and conduct research.

The two most helpful organizations for Cooperative Plan implementation are likely to be The Nature Conservancy (TNC) and the Trust for Public Land (TPL):

- The ownership history of the South Slough NERR lands shows that a number of the parcels were transferred from TNC, which means that TNC has a history in the area and with South Slough NERR. The most recent property transfers from TNC occurred in 1996, with the earliest occurring in 1976.
- TPL has a successful track record with controversial or difficult acquisition negotiations, and has dealt with a number of timber companies. This may be valuable given the ownerships around South Slough NERR. The Northwest Regional Office for TPL is located in Seattle, and there is an Oregon field office in Portland.

Both TNC and TPL acquire land. TNC holds title to land in its own preserves, and also acquires lands that will be held by other organizations. TPL does not maintain preserves. It may hold title temporarily, but the land will eventually be passed on to a public entity.

TABLE 6.2 CONSERVATION GROUPS				
Organization	*Local Address*	*Telephone*	*Contact Name*	*Areas of Interest*
Ducks Unlimited	LaCenter, WA (Tualatin office is fundraising only)	(360)263-3288	Steve Donovan	Does waterfowl habitat restoration projects. Also buys and protects habitat. May be a good partner for restoration.
National Wildlife Federation	2031 SE Belmont Portland, OR 97214-2812	(503)230-0421	Beth Stout – habitat programs	Founded 1934. Has five core focus areas: Endangered habitat, Water quality, Land stewardship, Wetlands, and Sustainable communities.
The Nature Conservancy of Oregon	821 SE 14th Ave Portland, OR 97214	(503)230-1221	Russ Pinto – Director of Land Protection	Buys and protects habitat. Works with private interests, public agencies, and landowners. Also maintains 53 nature preserves in Oregon.
Oregon Natural Resources Council Fund	5825 N. Greeley Portland, OR 97217	(503)283-6343	Doug Heiken – SW Field Rep (541)344-0675 P.O. Box 11648 Eugene, OR 97440	Conservation consortium promoting environmental protection by educating the public and influencing the public's servants through legal and legislative processes.
Oregon Trout	117 SW Naito Pkwy. Portland, OR 97204	(503)222-9091	Jim Myron – Conservation Director	Protection of native wild fish and habitat. Policy advocacy, scientific research, demonstration projects, and environmental education. Strong youth program – Salmon Watch.
Pacific Rivers Council	P.O. Box 10798 Eugene, OR 97440	(541)345-0119	David Bayles – Conservation Director	Develops scientific tools, public policies, and community development strategies to restore the ecological integrity and sustainable use of America's river systems.
River Network	P.O. Box 8787 Portland, OR 97207	(503)241-3506	Kathy Luscher – Watershed Program (503)241-3506x16	Mission is to help people organize to protect and restore rivers and watersheds. River Conservancy arm acquires riverlands for long-term protection.
The Sierra Club Foundation	3701 SE Milwaukie Suite F Portland, OR 97202	(503)238-0442		Promotes conservation of the natural environment by influencing public policy decisions – legislative, administrative, legal, and electoral.
The Trust for Public Land	1211 SW 6th Avenue Portland, OR 97204	(503)228-6620	Bowen Blair – Director	Works exclusively to protect land. Legal and real estate experts work with government agencies, landowners, and community groups.
The Wetlands Conservancy	P.O. Box 1195 Tualatin, OR 97062	(503)691-1394		Works to preserve, protect, and restore Oregon wetlands and urban stream habitat through wetland acquisition, education, and stewardship.

6.3 Partnerships Through Memoranda of Understanding

The Cooperative Plan considers forms of agreement other than outright ownership that could allow for Reserve expansion or control over properties that meet South Slough NERR goals and objectives. The Memorandum of Understanding (MOU) is a vehicle that will likely be used often to formalize arrangements with other public land owners in the biogeographic region. The MOU is a legal agreement that sets forth the responsibilities of each of the parties to the agreement.

Typically, a MOU will contain the itemized areas of agreement and responsibility, the duration of the agreement, a method for modification, and a method of termination. The agreement is then signed by each of the parties.

Two agencies may decide that they want to cooperate; the MOU allows the agencies to set forth what that means and how the cooperation will be carried out. For example, a MOU was prepared between NOAA and the State of Oregon when South Slough NERR was first established. The use of a MOU might include an agreement with BLM, Forest Service, State agencies, or the County to restrict logging within a certain buffer distance of a stream or to protect certain natural features, wildlife corridors, or habitat locations on a specific property owned by the other public entity. All of these protections could contribute to functions and values of the Reserve.

In addition to a description of individual responsibilities, another important element that should be included in a MOU is the method or methods of conflict resolution. A conflict would arise because the two parties to the agreement have different missions or goals. When a conflict arises, a specified method of conflict resolution in the agreement is invaluable.

MOUs provide a means for South Slough NERR to make use of other publicly owned lands around the Reserve, such as the County-owned property south of the South Slough NERR boundary. Such an agreement will be useful to South Slough NERR where the land in question is already publicly owned. For example, a MOU will allow the County to share some of the burdens of holding and maintaining the land with South Slough NERR. At the same time, South Slough NERR will gain the use of additional land, without the expense of acquisition.

For situations where a MOU is put into place, South Slough NERR should include a clause in the agreement that will allow incorporation of the subject property into the South Slough NERR boundary. NOAA representatives have indicated that any property under the control or management of South Slough NERR should be included within the Reserve boundary. South Slough NERR should determine, in such cases, how to map the Reserve boundary to indicate ownership vs. stewardship or management responsibility.

Elements of a MOU. The following basic elements should be included in a MOU:

- Description of the parties to the agreement
- Legal basis allowing the agreement, if there is one
- Individual responsibilities of the parties
- Method(s) of amending the agreement
- Time limit of the agreement (agreements are sometimes written so that they automatically renew annually, unless either party provides written notice of the intent to terminate or amend.)
- Method(s) of conflict resolution
- Method(s) of termination

For the most part, South Slough NERR will most likely seek to establish Memoranda of Understanding with other agencies, such as Coos County. However, some of the larger corporate land owners may be willing to sign an agreement.

The individual memoranda will most likely differ, depending upon South Slough NERR's goals for the target property and the property owner's willingness to work with South Slough NERR. The memoranda may address such items as:

- Reforestation policies
- Policies on buffers around streams and other important habitat
- Policies on how and where pesticides and herbicides can be used
- Policies on development
- Public access policies
- Off-road vehicle use policies
- Policies on building new roads and decommissioning old roads
- Policies on mushroom and forest products gathering
- South Slough NERR responsibilities; such as initiating and completing habitat improvements, monitoring, maintenance, etc.

South Slough NERR can obtain varying levels of control over the use of other properties through the use of the MOU. For the purpose of this Plan, we will call the greatest level of control "agreement". "Agreement" means that an objective standard is developed and agreed to by both parties. An agreement could be that no off-road vehicle use is permitted, or that no development is to be permitted within a specific buffer area. The next level of control is "concurrence". Concurrence means that particular actions will not occur unless both parties concur. For example, fertilizers will not be used unless both parties concur. The weakest level of control is the recommendation. This means that one party will not make a decision about an issue until the other party has had an opportunity to make a recommendation. For example, South Slough NERR would have the opportunity to make a recommendation before a forest practices permit application is filed. This would provide the least amount of control because even if South Slough recommended against approval, the other party could still be issued a permit.

The degree of regulation of activities will vary depending on the goals of South Slough NERR and the outcome of the negotiations between the other party and South Slough NERR. At times, it may be in the best interests of South Slough NERR to have several levels of control on specific issues. For example, the MOU could contain an agreement that a 200 ft stream buffer will be maintained, and also that South Slough NERR will make recommendations on proposed activities within 1000 ft of a stream.

Appendix J contains a sample MOU, and a model MOU for use by the South Slough NERR.

7 IMPLEMENTATION STRATEGIES FOR PLANNING AREA CONSERVATION

7.1 Acquisition Program Process

For a long-term land acquisition program to be successful, certain strategies should be implemented that will result in an efficient, reliable and cost effective system. While requiring effort at the beginning of the program, the end result should save time, dollars and stress to all involved in the acquisition process.

Figure 7.1 illustrates the Cooperative Plan implementation process.

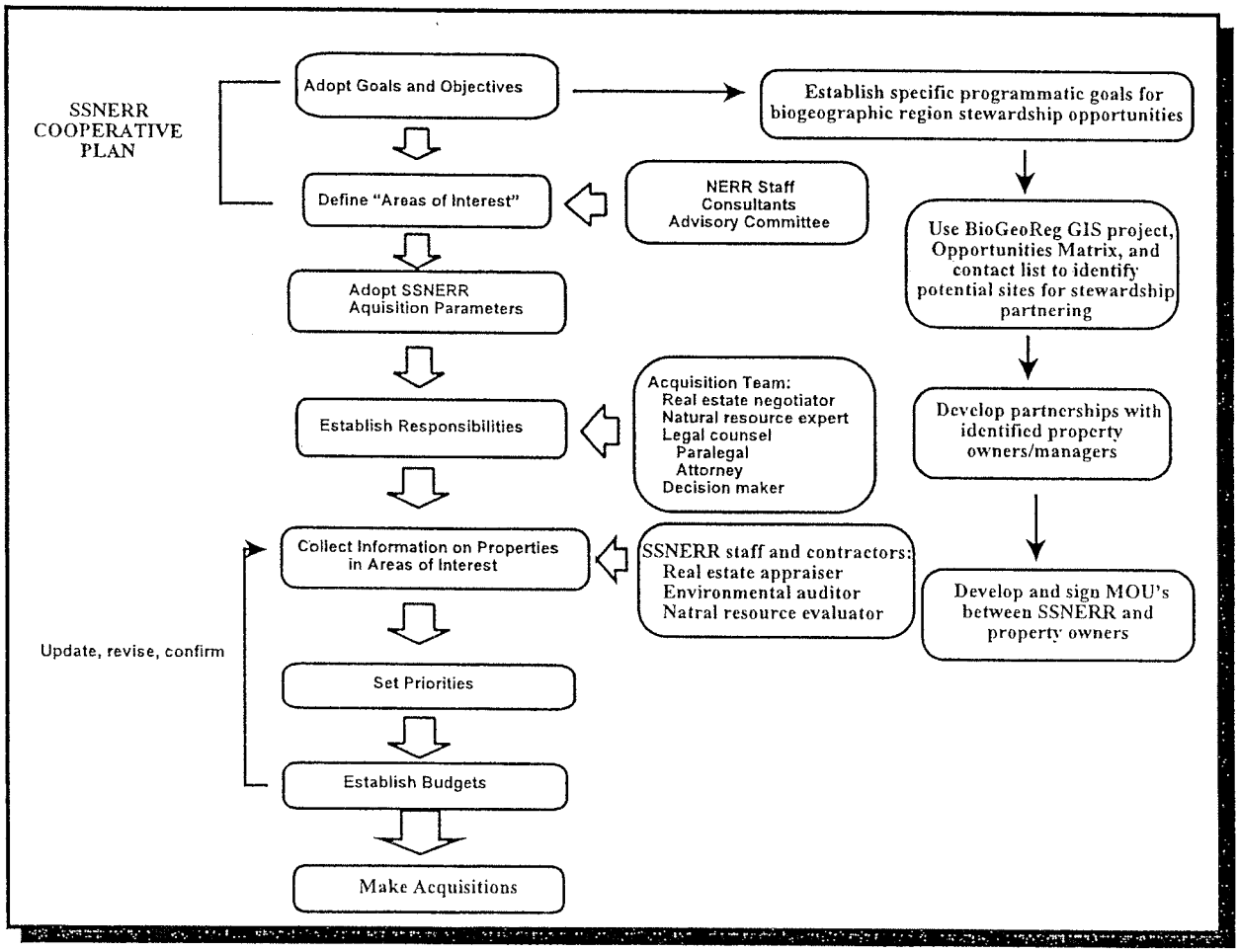

FIGURE 7.1 SOUTH SLOUGH NERR COOPERATIVE PLAN PROCESS

7.1.1 Acquisition Goals and Objectives

The CPAC developed goals and objectives for the Cooperative Plan (see text box and Section 3.3).

7.1.2 Areas of Interest Identification

The CPAC identified five Areas of Interest within the Planning Area (see Section 3.5). Establishing the Areas of Interest is the first step of a successful land acquisition strategy. These Areas of Interest are specific geographic areas chosen because they incorporate properties that meet the Cooperative Plan goals and objectives. The key to successful implementation is to focus available resources, manpower and dollars in an effort to acquire lands within each Area of Interest that best meets the goals and objective of the program.

One of the major difficulties for a government agency to overcome is how to involve the public in the adoption process of an acquisition plan without land prices escalating or property owners feeling threatened. In order to resolve these two problems, Areas of Interest are non-tax lot specific and include more acreage than is possible to purchase based on the dollars available. The areas need to be broad because acquisition is based on willing seller participation. There will be a limited number of willing sellers at any specific time, therefore the pool of properties needs to be large. This strategy also assists South Slough NERR to retain negotiating power with a seller. A seller is less likely to set an unreasonable price if he or she knows that equally desirable properties are available at a "fair market" value.

COOPERATIVE PLAN GOALS AND OBJECTIVES

Goal 1. Protect the integrity of existing investment
Objectives:
- provides increased control over intact watersheds
- provides for protection or conservation of important ecological functions (i.e. water quality, wildlife corridors, wetland hydrology, genetic resources and dispersal pathways, critical habitat for rare species, etc.)

Goal 2. Provide for diversity of habitat
Objectives:
- provides opportunities for upland research
- provides opportunities for relatively pristine and "built" environment research, education and stewardship
- provides increased habitat diversity within South Slough NERR program to adequately represent biogeographic region habitat typology (ecological structure)
- provides for conservation of aesthetically important sites (views, sounds)

Goal 3. Address specific projects
Objectives:
- provides opportunities for demonstration of ecologically effective agricultural land uses
- provides opportunities for salmonid restoration research
- provides potential for development of ecotourism

7.1.3 Adopt Acquisition Parameters

Acquisition parameters are a pre-approved set of criteria or conditions under which South Slough NERR designees are authorized to negotiate and purchase property. The creation of pre-approved acquisition parameters will permit South Slough NERR to deal with willing sellers in a timely and business like manner. This is particularly important when a property is on the market or when time is of the essence to a property owner. In order to successfully compete for the property the negotiator needs to be able to commit to a transaction time frame and process. In the private sector a transaction can be completed in 30 to 60 days. In a transaction with a public entity a goal of 60 to 90 days is realistic if no public hearings are required[18] and if the acquisition parameters have been followed.

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[18] Public hearings may be required under the federal NOAA and/or NEPA regulations for property acquisitions; however, this requirement might be met by holding a public hearing following issuance of federal notice for adoption of the Cooperative Plan. See Section 8.4 for discussion of this issue.

Each funding source may have specific acquisition rules or guidelines. These need to be identified and listed, and then any acquisition using specific funding sources must follow the specific rules and guidelines. For example, the acquisition guidelines for NOAA funds are: property cannot be acquired for more than fair market value; the property to be acquired must be identified in the NERR's Management Plan; proper notice procedures (federal and local) must be followed; and a public hearing must be held if there is a potential conflict (personal communication: P. Fishman and N. Garfield, September 9, 1999).

The acquisition parameters should be agreed upon and state recommended parameters adopted by all the parties who have approval authority over contracts or the release of funds. Legal requirements governing the acquisition of public land need to be incorporated into the acquisition parameters. The resulting process should be made as simple and clear as possible. To be successful, the negotiator must be able to recognize what items can be negotiated and who makes the final decision regarding contract issues. The South Slough NERR Management Commission and Advisory Group should be formally requested to dispense with approval of each individual property transaction. Ideally, their authority to approve a transaction should be delegated to the appropriate individual who is granted decision-making and signature authority as long as all the acquisition parameters are followed. Legal counsel serves as a check, ensuring that all the parameters are met before approving the transmittal of funds to closing for each acquisition.

In the case of South Slough NERR, the following acquisition parameters should be adopted:

- the property owner is a willing seller;
- the property is in an identified Area of Interest;
- the property meets acquisition criteria
- the property owner has agreed to sell at a value that meets the criteria set out by South Slough NERR; (Note: South Slough NERR will actively solicit donations or bargain sales)
- the purchase price is within the established budget for the area;
- the method of ownership is acceptable, such as conservation easements and life estates;
- "due diligence" efforts have been completed and no unusual circumstances have been found;("Due diligence" is the systematic inspection of the legal title and physical condition of the property before it is purchased. Due diligence should be conducted far enough in advance of closing to resolve any discrepancies or problems that may arise. Examples of unusual circumstances might be hazardous waste concerns or title restrictions such as mineral right assignments to other parties, etc.)
- South Slough NERR staff agrees to keep the appropriate agencies and advisory groups informed about the progress of acquisition with semi-annual reports summarizing acquisition activity for each area.

Criteria need to be developed establishing the "value" South Slough NERR will pay for property specific to each potential funding source. In most cases "value" should be the price an owner could reasonably expect to receive on the open market. As a purchaser of land, the government is normally required to verify value through an appraisal process; this procedure is followed by ODSL. An appraisal, prepared by an independent certified appraiser, states a range of value or, if appropriate, a specific fair market value. The appraiser may be instructed to make assumptions that reflect the specific market conditions affecting the property (i.e. assemblage value).

It is recommended that a certified appraiser under contract to South Slough NERR or ODSL conduct or review all appraisals, particularly those supplied by a property owner or a third party. This appraiser will review the appraisal and any special assumption to ensure compliance with Uniform Standard Professional Appraisal Practices and general appraisal standards. If the appraisal does not meet acceptable standards, the review appraiser may send it back for corrections, order a second appraisal or make a final determination of the range of value from the information supplied by the original appraisal.

If possible, exceptions to the appraisal process should be developed. There are some instances in which an appraisal may not be necessary. For instance, an owner might offer to sell his land at assessed value. Based on appraisals done on similar properties it might be clear that assessed value is significantly below market value. Or, in another instance, the value may be so low that it is not cost-effective to obtain an appraisal.

Federally funded acquisition requirements are more stringent than other funding sources (for example, NOAA criteria prohibit paying more than fair market value). Private funds may allow South Slough NERR to pay above or below appraised value; the NOAA criteria, for example, do not apply to acquisitions made with private funds. For example, a property could be listed on the market for $100,000. South Slough NERR could make an offer to purchase the property for $100,000. However, if the appraisal demonstrates a value of $120,000, a federally funded acquisition would require that the additional $20,000 be paid to the owner. If the transaction is privately funded the agreed upon price of $100,000 would be paid. It is important to understand that the appraisal process represents a well-researched guess as to the value of a property. If three appraisers all value the same property it is likely that there will be three different appraised values.

South Slough NERR policy makers need to determine when they are willing to pay an owner more than appraised value. In the above instance, if the appraisal set the property value at $90,000 and the owner was unwilling to lower the price, should the additional $10,000 be paid? If this is a federally funded acquisition, federal dollars would be used for the $90,000 and the additional $10,000 would be paid out of a private source.

It is recommended that a policy be adopted that allows some flexibility on the purchase price based on the following points:

- the importance of the property based on its natural resource value;
- the impact to the overall goals and objectives of the NERR if the property is not purchased; and;
- the likelihood that the value of the property will increase within a few years, rendering the purchase price a reasonable one within that time frame.

7.1.4 Establish Responsibilities

In addition to focusing resources on specific areas, it is important to understand the different components of the acquisition process and designate responsibility to the appropriate parties. A successful natural area acquisition program normally has a team that, at a minimum, consists of a real estate negotiator, a natural resource specialist, legal counsel (a paralegal and an attorney) and a decision maker.

The negotiator is responsible for meeting the program's goals regarding property acquisition. However, this is a fair expectation only if the negotiator is given clear direction regarding the properties to pursue, and acquisition parameters.

The natural resources specialist works with the negotiator to refine each "area of interest" and in an ongoing process collects information from neighbors, property owners and site visits about the area's natural resources or other attributes. This information is critical to confirming or reassessing the selection of land to purchase or control.

Legal counsel (paralegal and attorney) are responsible for the technical aspects of the negotiation and the transaction. The paralegal helps identify property owners, orders title reports, reviews title information and flags pertinent issues for the negotiator and the attorney. The paralegal should also be responsible for "due diligence," contract management and coordination of other professional services related to the transaction including, but not limited to, the Title Company,

building inspector, surveyor, environmental auditor and appraiser. The paralegal also tracks the contract through the signature process, reviews the closing statement and coordinates the transfer of funds to the Title Company. The attorney reviews and amends the contract as required, coordinates the transaction with the seller's attorney, ensures adherence to the acquisition parameters and approves the release of funds.

A decision-maker is essential to the contract negotiation process. The program's negotiator will need direction regarding the important contract elements. It is essential that decisions be made expeditiously. The negotiator and the attorney need to be given timely direction from the designated decision-maker. Properties will be lost if a committee meeting or a hearing is necessary for the numerous decisions related to a real estate contract and closing.

Another potential delay factor that should be eliminated is the government contract process required to retain outside services. The acquisition program will need the services of a number of outside specialists. These services include, but are not limited to, appraisers, surveyors, environmental auditors, land use consultants, building inspectors and timber cruisers. Multi-year, master contracts for these services should be established through the required bid process. If possible, several firms for each expertise should be retained. As services are needed for specific transactions, contractors would be contacted as retained based on availability.

The recommended South Slough NERR acquisition team should have the following composition:

Decision-maker:	South Slough NERR Manager Provides authority for South Slough NERR to enter into fee-simple purchase or less-than-fee-simple acquisitions (proxy for SSNERR Management Commission) and general acquisition oversight.
Acquisition Coordinator:	South Slough NERR staff position (limited duration/grant supported) Writes grant proposals, manages acquisition grants, makes landowner contacts, organizes site visits, organizes appraisal funds and contracts, suggests properties to focus on based on plan criteria, coordinates all acquisition activities (this position is grant-supported)
Natural resource specialist(s):	South Slough NERR Stewardship Coordinator, with support from South Slough NERR staff and contractors Provides natural resource information to the acquisition team about specific properties to ensure effective and appropriate plan implementation.
Real estate negotiator:	Contracted local real estate professional, or services provided by ODSL, or possibly cooperative role with other entities (BLM, TNC, USFWS, etc.) Handles all real estate negotiations and transactions and provides advice to the acquisition team on appropriate and effective options and acquisition strategies for specific properties

Legal counsel:	Contracted local real estate attorney; final review provided by Oregon Department of Justice through ODSL contract
State personnel	Reviews all real estate transactions and provides custom legally-binding agreements

7.1.5 Collect Information on the "Area of Interest," Set Priorities and Establish Budgets

Throughout the acquisition program, the acquisition team, primarily the negotiator and the natural resource specialist, need to work on collecting and analyzing information that will help prioritize specific properties in each area. This information is updated constantly as property owners are contacted, interviewed and site inspections take place. While scientific data collection is always desirable, the best source of information regarding the property is usually the owner or the interested neighbor. In any locale there is usually a local expert who is aware of the site history, wildlife patterns and other pertinent information. The team's first steps should be to read the stakeholder interview summaries (Appendix F), contact local experts and stakeholders for more in-depth information and begin meeting with all willing private sellers who have contacted the program. The team should attempt to tour as many properties as possible in each of the areas, always with the permission of the property owner.

In the case of publically owned lands, such as those owned by Coos County or ODSL, discussions should be initiated (or continued if already in progress) with the owning and/or managing agencies about the South Slough NERR Cooperative Plan. These discussions should include strategies such as land transfer, cooperative stewardship through an MOU, or other mechanisms to achieve Cooperative Plan goals.

Detailed notes should be taken for each property that answer the following questions:

- What are the characteristics and values (natural resource and real estate) of the property?
- Is this property important to meeting the goals and objectives of the program?
- What level of control is necessary to protect these values?
- Does the entire property need to be controlled? Does it need to be owned by South Slough NERR?
- Would conservation easements or management agreements be appropriate?

Reviewing each property in this manner allows for clearer decision making later. It should be noted that a conservation easement or a partial acquisition might not meet the property owner's goals.

The team should present their findings to appropriate South Slough NERR staff and other natural resource experts, however the data obtained and the conclusions made need to remain confidential. Based on this analysis and feedback the team should select priority properties and rank them in the order of importance and urgency. For instance, staff should work with an owner whose property is on the market vs. an owner who has no immediate plans to sell.

As an example, within an "area of interest" the team might determine that 5 properties containing the headwaters of streams, 2 properties containing osprey nests and 1 property containing a wetland are the high priority sites. Working with an appraiser an approximate value range, for budget purposes only, is set for each property and depending on the total dollar amount the list is expanded or reduced. Ultimately, all the properties on the list may not have willing sellers; therefore the list and the dollar value may be greater than the actual funds available. The confidential priority list must be constantly updated as acquisitions are made; funds expended, leveraged, obtained through grants, donations or bargain sales. The designated decision-maker must be in agreement with the list of properties and prioritizations.

Each "area of interest" will have a confidential list of priority properties and a budget. The list should be revised or confirmed as new information on the area is obtained. The level of effort devoted to each Area of Interest is based on the resource allocation percentage identified in the Cooperative Plan for each Area of Interest.

General suggestions for a successful acquisition program are presented in the text box below.

Suggestions for creating and maintaining a successful acquisition program:

Look beyond the dollars and acres. This is an exceptional opportunity for South Slough NERR and its neighbors to get to know and understand each other better.

- As a result of the planning process, a number of people, (local experts, the press, stakeholders, property owners, elected officials, etc.) are now familiar with the program, its resources and its goals. Keep the mailing list up to date; send out thank you letters and work with the friends group on a method of keeping these people informed of the South Slough NERR's accomplishments and problems.
- See if anyone on the list will help introduce staff to the property owners. Many times the person who makes the introduction will help both parties, the negotiator and the owner, overcome any differences.
- When you meet with the property owner, use this as an opportunity to educate the owner about the program and realize that you need to be educated about the owner and his/her issues.
- Stay in touch with the property owners. Even if they don't want to sell, they are your neighbors. Make sure they feel comfortable calling you if they ever have questions or need advice on their property. On the property tour treat the owner as a resource of information and advice on the area.
- Ask the owner's permission to put them on the mailing list so they can stay informed about South Slough NERR.
- Keep detailed property files, including information on the owner. These files are particularly important if there is staff turnover, or if time elapses between contacts with the owner.
- Hold an annual open house, invite the neighbors, offer activities that are fun and educational, hikes, tours of the new properties, etc.
- Once a property has been acquired, keep the original owners informed of how the program's doing. If they are staying in the area, encourage them to join the friends group. See if they will introduce you to other neighbors.

Thank people for their time, don't preach, and respect their right to hold values different from yours. Agree to disagree.

7.2 Early Acquisition Opportunities

While the above items are being developed it is likely that willing sellers or other interested parties will ask for properties to be considered for immediate acquisition. These opportunities should be reviewed and, depending on the urgency, addressed as soon as possible. The appropriate questions should be asked:

- Is the property in one of the adopted Areas of Interest?
- If not, does the property present a unique opportunity not previously considered?
- If so, is the opportunity important enough to divert South Slough NERR resources needed to fulfill the adopted goals and objectives?
- Is there a willing seller?
- Does the property meet the criteria established in the Cooperative Plan for acquisitions?

- Is there a demonstrated need to purchase the property or acquire an option as soon as possible and in advance of the processes set out above?
- Is there a high level of certainty that the property will ultimately be included in the priority list due to its location, size, unique characteristics or other factors founds to be relevant?

Once these questions have been answered a decision should be made and acted upon.

7.3 Acquisition of Properties Outside the Watershed or of Non-contiguous Properties

Properties Outside the Watershed

There are no Federal restrictions on South Slough NERR that require keeping proposed acquisitions within the South Slough watershed (see 15 CFR 921.33 for multiple site components). As long as the proposed acquisitions are identified in the Cooperative Plan, land can be acquired outside of the watershed. As with properties inside the watershed, the acquisition plan should discuss why the properties outside of the watershed have been prioritized for addition to the Reserve.

Non-Contiguous Properties

During development of the Cooperative Plan, questions arose about the acquisition of non-contiguous properties and how the Reserve boundary would be affected. The Reserve boundary presently includes only those properties specifically owned by the Reserve. When a proposed acquisition is **not** contiguous to the existing South Slough NERR boundary, the South Slough NERR boundary **will not** be adjusted to include all of the properties between the boundary and the new acquisition. Instead, the new acquisition will become an island of South Slough NERR. The South Slough NERR boundary does not need to be continuous – it simply designates the property under South Slough NERR control.

Easements and Other Acquired Rights

The question of conservation easements and other less than fee simple interests has come up several times during Cooperative Plan development. The Reserve's boundaries would be expanded to include any areas where South Slough NERR has obtained conservation easements and other similar interests in property (N. Garfield, NOAA, pers. comm.). In addition, the boundary should also be expanded to include any properties over which South Slough NERR gains property or management rights through other forms of agreement, such as an intergovernmental memorandum of understanding (MOU).

7.4 Federal Process

The NOAA approval process for an acquisition plan (the Cooperative Plan, in this case) typically involves the following steps:

- Draft Final Acquisition Plan is completed
- public meeting is announced and conducted to receive comments on the Plan
- Final Acquisition Plan is submitted to NOAA for review, including NEPA compliance review (NOAA consults with US Fish and Wildlife Service and/or National Marine Fisheries Service if Endangered Species Act issues are involved)
- summary and notice of NOAA decision is published in the Federal Register and local newspapers for public review and comment
- following close of public comment period, Final Acquisition Plan is prepared and approved

One of the main purposes of NEPA is to ensure that the public is involved in making decisions that could result in environmental impacts. NOAA recommends involving the public in the acquisition planning process, but a public hearing is generally not required unless the proposed acquisition plan appears to be particularly contentious. Development of the South Slough NERR Cooperative Plan was a very open process, involving a Citizens Planning Advisory Committee and two public open house meetings. This process followed the specific recommendation of NOAA NERRS staff that the Reserve hold a public meeting so that the proposed plan can be presented to interested citizens, and so that people have an opportunity to voice any concerns or ask any questions (N. Garfield, pers. comm. 1999). It is recommended that another public meeting (informal, open house-style) be convened following publication of the Federal Register and local newspaper notices to provide another opportunity for public input and comments.

Endangered Species Act (ESA) Section 7 consultation will likely occur between NOAA and the US Fish & Wildlife Service and the National Marine Fisheries Service. The South Slough NERR should prepare a short memorandum as a support document for NOAA to use in these consultations. The memorandum should contain the following information: 1) a list of all ESA listed plants and animals known to occur, or that potentially can occur within the Cooperative Plan Areas of Interest, with the exception of Area of Interest 6, the biogeographic region; and 2) a discussion of the potential impacts posed to listed species by Cooperative Plan activities; this should include beneficial as well as adverse impacts.

An EIS was completed in 1974 for formation of the South Slough NERR. Since creation of the Reserve, there has not been a need for another EIS or for an EA. During the adoption of the 1994 Management Plan, South Slough held a public hearing and a public comment period with published notice. The comments received were minimal, and the hearing was attended by only a few people. After the public comment period, both the South Slough Commission and NOAA approved the plan.

Research and contact with NOAA have not found any instances where an EIS was required for approval of an acquisition plan. It appears that the environmental process for past NERR acquisition plans has included only public meetings or hearings and public comment periods.

After the final draft Cooperative Plan is submitted to NOAA, a determination will be made on the type of environmental review required. The Cooperative Plan does not appear to contain very controversial components, based on the comments received to date from the public. A categorical exclusion (i.e. a decision under NEPA rules that an EA or EIS is not required) will likely be granted for the Cooperative Plan that will cover future acquisitions within the Areas of Interest identified in the Cooperative Plan (pers. comm. N. Garfield 1999).

The public meeting, combined with the public comment period, will provide evidence that there is public agreement with the Cooperative Plan, and will provide support for final approval of the Cooperative Plan by NOAA and the South Slough NERR Management Commission. The public involvement narrative and appendices included in this Cooperative Plan provide important documentation of the level of public input during the development of the Cooperative Plan.

In summary, the Cooperative Plan becomes part of the South Slough NERR Management Plan once it is approved by NOAA and the South Slough NERR Management Commission. Decisions made by NOAA on the Cooperative Plan, such as a NEPA categorical exclusion, will hold for any action taken as per the Cooperative Plan. In other words, each single acquisition action will not need to be reviewed by NOAA once the Cooperative Plan is approved.

Involvement By Other Agencies

Categorical exclusions are authorized through the National Environmental Policy Act of 1969 (NEPA). If NOAA approves a categorical exclusion, it means that NOAA staff have made a determination that the proposed action meets the standards contained in the Act. Other agencies should therefore also come to the same conclusion.

If additional Federal agencies are involved in a specific acquisition, it is likely that each of the agencies will have its own procedures to ensure NEPA compliance. Generally, once one agency, such as NOAA, has given environmental clearance for a project through a categorical exclusion or other means, other agencies will use that clearance as the basis for their own approval.

8 RECOMMENDATIONS FOR PLAN IMPLEMENTATION

As shown in Figure 7.1, this Plan represents the first two steps in a multi-step process for achieving the goals of the Cooperative Plan. The first two steps were to: 1) adopt Plan goals and objectives; and 2) define acquisition selection criteria and designate "Areas of Interest." The Cooperative Plan also provides a great deal of information, programmatic and structural frameworks, and recommendations to guide Plan implementation. This section provides a summary of the recommendations for Plan implementation.

8.1 Use of Funds from the Gustafson Will

☐ Obtain a formal interpretation from the Oregon Department of Justice concerning the uses of the Gustafson funds, such as for less than fee simple land acquisitions. (Note: South Slough NERR has made this request to ODSL, August 1999.)

8.2 Federal Requirements

☐ Contact the NERR Program Specialist regarding publishing notice of the Cooperative Plan in the Federal Register. South Slough NERR staff will need to prepare a summary of the Cooperative Plan, with enough detail so that people can comment on it (the Cooperative Plan Summary at the beginning of this document could suffice). In preparation of the summary, South Slough NERR staff should coordinate with the Program Specialist to ensure that their work meets NOAA needs. After notice is published, 30 days will be allotted to receive written public comments.

☐ Publish notice of the Cooperative Plan in the local paper of record at the same time notice appears in the Federal Register. A public meeting to receive comments on the Cooperative Plan should be scheduled and conducted.

☐ Produce a memorandum for NOAA use during ESA Section 7 consultation. The memorandum should include a list of all ESA listed plants and animals known to occur, or that have the potential to occur within the Cooperative Plan Areas of Interest (except Area of Interest 6 - the biogeographic region), and a discussion of the potential adverse and beneficial impacts of acquisition actions on these species.

8.3 Public Involvement

☐ Re-convene the CPAC following review of the Review Draft Plan and ask for a recommendation to the South Slough NERR Management Commission for adoption of the Cooperative Plan.

☐ Solicit interest from willing sellers of properties within the Planning Area. Keep an updated list of these interested persons at the South Slough NERR administrative office.

☐ Utilize the CPAC in the periodic review process for the Cooperative Plan (see below).

8.4 Biogeographic Region Opportunities

☐ Update the Coos Bay habitat information in the GIS project (see Figure 4.2).

☐ Clearly articulate in writing the need, the specific opportunities being sought, and the proposed programmatic uses for each of the NOAA ecosystem habitat types (e.g. what specific stewardship, research and education objectives can be fulfilled, and how will this be accomplished?).

☐ Identify specific lands that appear to have the potential to meet the needs identified above, using the information compiled in this project (i.e. the matrix and the GIS).

☐ Contact the appropriate person within the land management agencies identified in the Biogeographic Opportunities Matrix to discuss actual habitat information, and to explore the potential for forming a partnership or cooperative agreement - a site visit will probably be a good idea for those areas that appear to have the greatest promise.

☐ Enter into discussions with appropriate land management agencies to create mutually beneficial partnerships or agreements.

☐ Further develop the Biogeographic Region GIS project ("BioGIS") by adding information as it is developed from public land owners.

☐ Use BioGIS as a tool for working with other public entities for mutual benefit.

☐ Consider establishing an interactive GIS station (integrated with the Reserve's PAGIS) at the South Slough NERR Visitor's Center for public use of the data base for ecotourism, research and education purposes.

8.5 Planning Area Data

☐ Identify water and mineral rights not owned by the State for existing South Slough NERR lands. Develop a strategy with ODSL for either obtaining these rights, or for entering into agreements with rights holders concerning how the rights will be used in the future.

8.6 Acquisition Process

☐ Create a limited duration grant-funded Acquisition Coordinator position at South Slough NERR.

☐ Form an Acquisition Team (as described in Section 7)
Decision-maker: South Slough NERR Manager
Acquisition Coordinator: South Slough NERR Acquisition Coordinator
Natural resource specialist(s): South Slough NERR Stewardship Coordinator, South Slough NERR staff and contractors
Real estate negotiator: Contracted professional, or services provided by ODSL, or cooperative role with other organizations
Legal counsel: Contracted local real estate attorney

☐ Develop a schedule for the Acquisition Team to meet, and a scope and schedule for the Team. The Acquisition Team should undertake the following tasks:

- Adopt acquisition parameters for the Cooperative Plan, as presented in Section 7.
- Establish flexible service-type contracts for special services as per Section 7.1.4 of the Cooperative Plan.

- Collect specific information on the Areas of Interest identified in the Cooperative Plan, as per Section 7.1.5.

- Identify the acquisition criteria, rules and/or guidelines for every funding source, public and private, that might be used, and then develop acquisition parameters that must be followed when using each funding source.

- Work with one or more private conservation groups to acquire properties when additional assistance is necessary or when the acquisition will require a significant amount of negotiation. Different groups have different skills and focuses.

- Adopt a definition of "South Slough NERR resources" as part of the property acquisition strategy contained in the Cooperative Plan. The acquisition strategy, which assigns a percentage of South Slough NERR funding resources to five of the six areas of interest, is intended to allow the Reserve the flexibility to pursue opportunities that may arise in one area of interest before all the properties in another have been acquired. For the purposes of the Cooperative Plan and strategy, "South Slough NERR resources" should be defined to include only the Gustafson bequest funds and any funds available to South Slough NERR from the state or federal governments. Outside grant funding and property donations should be specifically excluded from "South Slough NERR resources". Outside grant funding is unpredictable, as are property donations. Excluding these from the definition of South Slough NERR resources will allow the Reserve flexibility to pursue individual grant opportunities as they arise and to pursue donations, no matter in which area of interest they are located.

- Routinely report activities and progress to the South Slough NERR Management Commission, South Slough NERR Technical Advisory Group and the Conservation Plan Advisory Committee.

8.7 Grants and Fundraising

☐ Aggressively pursue OWEB funding opportunities.

☐ Consider focusing Friends of South Slough fundraising efforts on acquisition funding as well as educational programs and activities.

☐ Consider focusing Friends of South Slough fundraising efforts on specific acquisition or capital projects. (This would be a short term fundraising campaign with a specific monetary goal and a time limit. A special collection box could be added for the duration of the campaign, fund drive pamphlets could be prepared, and mailings could be sent to the Reserve visitor list. .)

☐ Prepare grant applications in the name of the Friends of South Slough, as a non-profit organization with the ability to receive grants limited to 501(c)(3) organizations. Coordinate with the Friends of South Slough president or another designated board member.

☐ Track grant and funding opportunities as they apply to property acquisition.

☐ Meet with South Slough NERR staff to review potential programs, projects, and acquisitions at least twice annually. Acquisition Coordinator should lead this meeting. At least one representative from Friends of South Slough should attend these meetings, since it is likely that some grants will need to go through FOSS. The purpose of this meeting will be to match South Slough NERR's planned programs, projects, and acquisitions with funding sources.

☐ Develop a focused strategy for working with state and federal congressional representatives for the purpose of acquisition program funding for SSNERR. (Develop a presentation aimed at describing the importance of SSNERR, its goals, the acquisition plan, and financial needs to representatives and their staffs. Schedule formal meetings and presentations with the two Oregon Senators and any Oregon Members of the House of Representatives who might be supportive of SSNERR. Invite representatives and their staff to events at SSNERR, and send them FOSS newsletters and SSNERR activities schedules. Make a specific verbal request for acquisition funding through a Congressional appropriation. This request will most likely need to be repeated and followed up on a regular basis.)

☐ If SSNERR is successful at obtaining a Congressional appropriation before the $5,000,000 NOAA acquisition cap is increased or eliminated, the appropriation should not go through NOAA. It should be allocated directly to South Slough or to Oregon, or should be passed through any Federal Agency other than NOAA.

☐ Explore the Land and Water Conservation Fund federal program with area congressional representatives as a potential source of acquisition funding.

☐ Follow up with area congressional contacts and with the Oregon Department of Parks and Recreation to monitor the status of LWCF state funding, and should consider making an application if funding becomes available.

8.8 Periodic Review of Plan

☐ Conduct a periodic review of the Cooperative Plan every five years. The review should include, at a minimum: evaluation and updating of Plan goals and objectives; review of acquisition actions within the Planning Area during the previous five years; review of acquisition parameters and modification if needed; review of acquisition priorities.

9 REFERENCES CITED

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USEPA/USFWS. 1980. An Ecological Characterization of the Pacific Northwest Coastal Region. Interagency Energy-Environment Research and Development Program; Office of Research and Development U.S. Environmental Protection Agency and Fish and Wildlife Service. Biological Services Program. FWS/OBS-79/12. July 1980. Volumes 1-5.

Key personal communications:

Lauren Schmidt, CDA Consulting Group:
01/04/99 Telephone conversation with Nina Garfield of NOAA
01/25/99 Telephone conversation with Cindy Vermilyea of DSL
02/01/99 Telephone conversation with Cindy Vermilyea of DSL
02/08/99 Telephone conversation with Cindy Vermilyea of DSL
06/02/99 Telephone conversation with Nina Garfield of NOAA
06/08/99 Email correspondence to Nina Garfield of NOAA
06/17/99 Telephone conversation with Nina Garfield of NOAA

Clay Moorhead, CDA Consulting Group:
06/15/99 Telephone conversation with Warren Deras, attorney

Peter Britz, Fishman Environmental Services
06/02/99 telephone conversation with Lance Finnegan, BLM
06/02/99 telephone conversation with Kevin Kritz, BLM
06/29/99 telephone conversation with Lee Gilson, Oregon State Historic Preservation Office
08/10/99 telephone conversation with Mike Barrett, Coos County Forestry
08/10/99 telephone conversation with Lee Bialozynski, Georgia Pacific

Paul Fishman, Fishman Environmental Services
09/09/99 telephone conversation with Nina Garfield, NOAA
09/09/99 telephone conversation with Carlyle Brenna, ODSL (retired)
09/09/99 telephone conversation with Rob Schab, Coos Bay/North Bend Water Board
09/13/99 telephone conversation with John Lilly, ODSL
10/28/99 email correspondence with Nina Garfield, NOAA

10 APPENDICES

Appendix A Glossary of Technical Terms and Acronyms
Appendix B Project Team List
Appendix C Gustafson Will
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Appendix I Biogeographic Region Opportunity Matrix and Contract Notes
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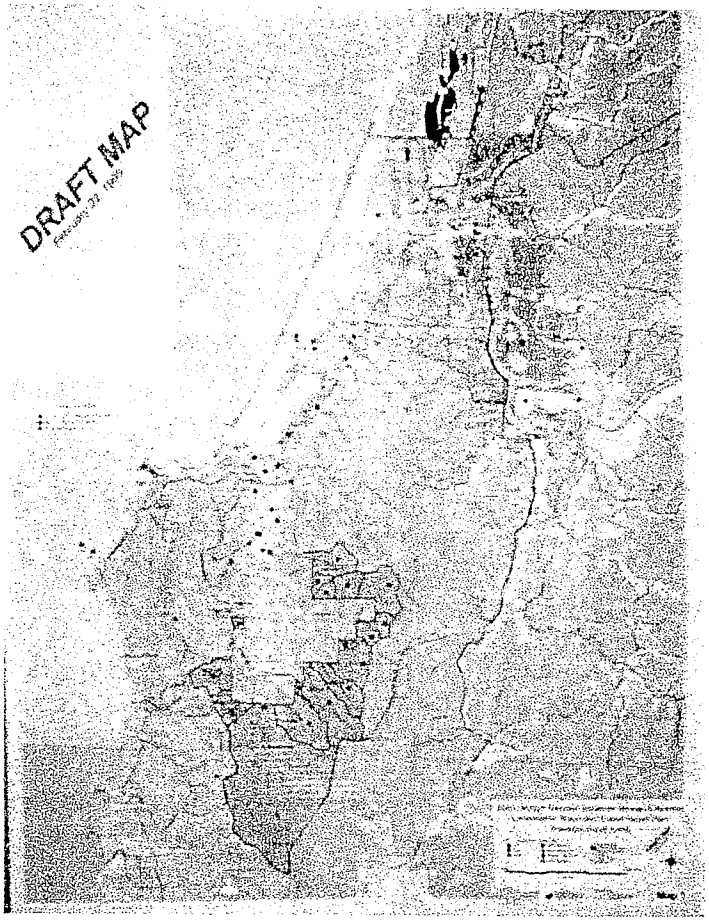
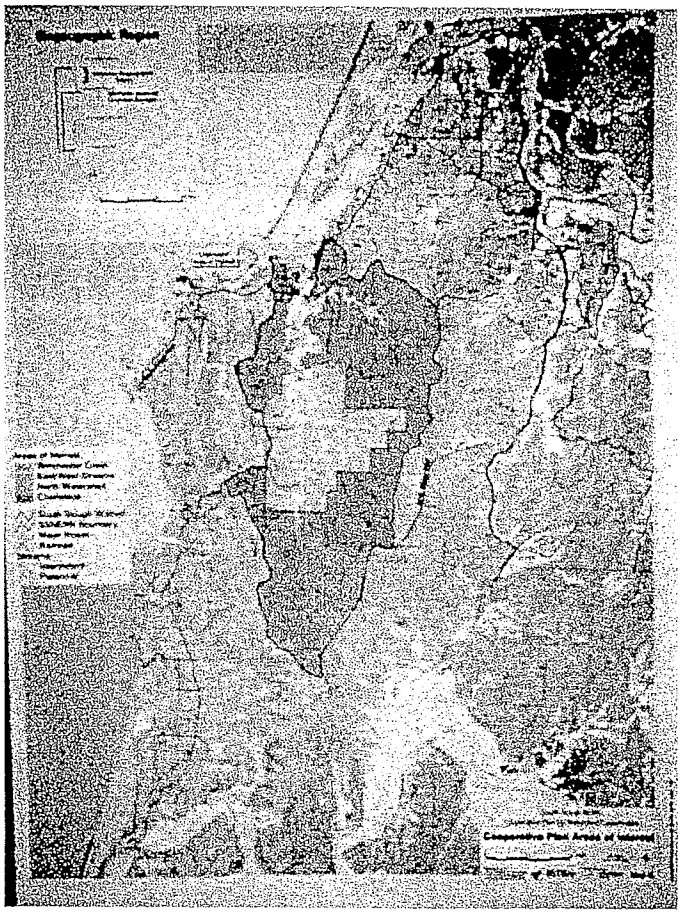
Appendix M GIS Project Source Data Summaries and Data Dictionaries
Appendix N SSNERR Property Parcel Printout

MAP SHEET
(following page)

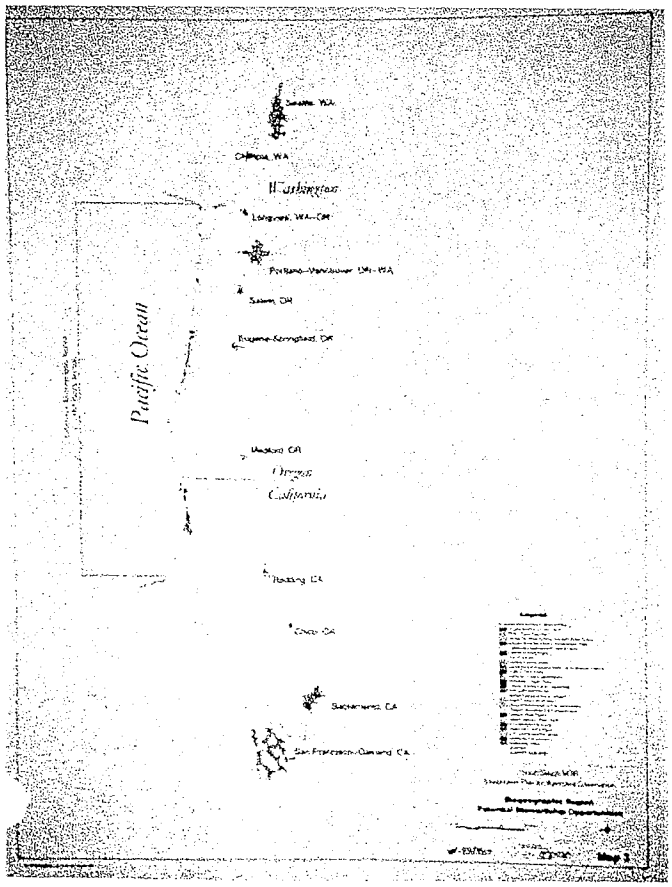
Maps 1 - 4 are "E" size (36 inch x 44 inch) color plots on file at South Slough NERR . Small-scale copies are shown on the Map Sheet.



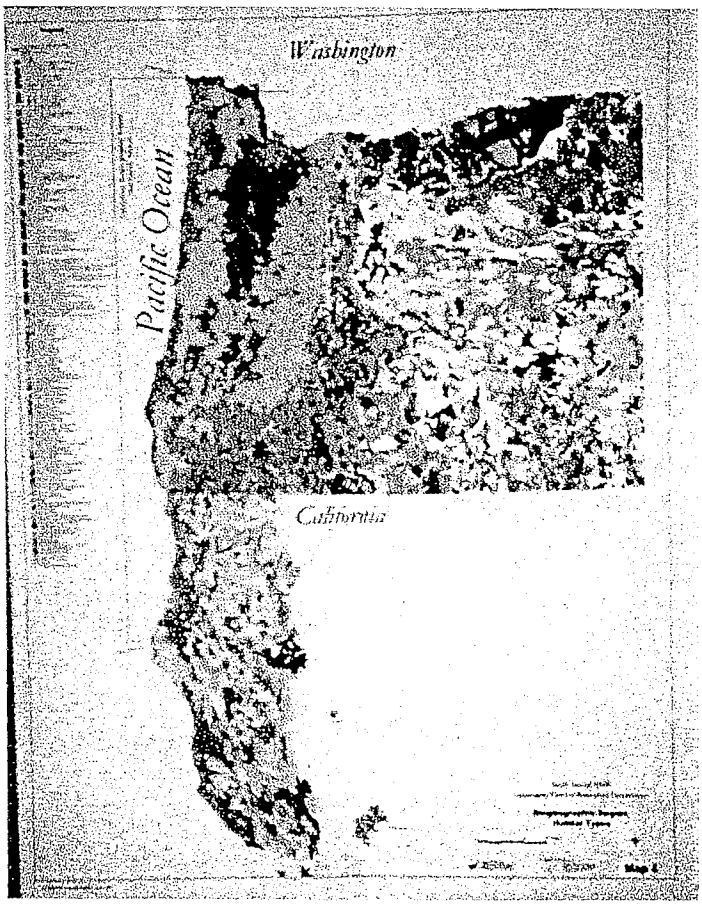
Map 1



Map 2



Map 3



Map 4

APPENDIX A: GLOSSARY OF TECHNICAL TERMS AND ACRONYMS

Anaerobic - The condition of complete or nearly complete absence of oxygen

Benthic - Portion of the marine environment inhabited by marine organisms that live permanently in or on the bottom

Bivalves - A subgroup of mollusks which have two shells hinged together (i.e. clams, mussels, oysters)

Chemosynthetic - The synthesis of organic (carbon containing) compounds from inorganic compound using energy derived from chemical reactions

Crustaceans - A group of organisms characterized by having a body covered by a hard shell or crust (i.e. barnacles, crabs, shrimp, lobsters)

Detritus - Decaying organic material

Diatoms - One of the most abundant groups of microscopic organisms living in the sea and the most important food source for marine mammals

Dinoflagellates - A group of microscopic organisms living in the sea

Gastropods - A subgroup of mollusks typically having a distinct head with eyes and tentacles and whose body is covered by a spiral shell (i.e. snails, slugs, limpets)

Graminoid - A grass-like plant

Herbaceous - A plant lacking a woody stem, distinct from shrubs and trees

Macrophytes - A group of macroscopic photosynthetic organisms (i.e. plants, algae) which grow in water

Mollusks - A group of soft-bodied animals, most of which are protected by a calcareous shell (i.e. snails, squid, octopus)

Polychaetes - A group of worm-like organisms living in the sea

Primary production - The growth of plants and storage of energy through the process of photosynthesis

Seral stages - A series of stages in the natural development of a plant community whereby one community is gradually replaced by another over time

Tunicates - A group of marine organisms with a characteristic cuticular outer covering of the body (i.e. sea squirts)

ACRONYMS

BioGIS:	Biogeographic Region Geographic Information System
BLM	Bureau of Land Management
CPAC:	Conservation Planning Advisory Committee
CRF:	Code of Federal Regulations
CZMA:	Coastal Zone Management Act
DEMIS:	Dynamic Estuary Management Information System
DEQ:	Department of Environmental Quality
DOGAMI:	Department of Geology and Mineral Industries
DOJ:	Department of Justice
EA:	Environmental Assessment
EFU:	Exclusive Farm Use (zone)
EIS:	Environmental Impact Statement
ESA:	Endangered Species Act
FOSS:	Friends of South Slough
GAP:	Gap Analysis Program
GIS:	Geographic Information System
LWCF:	Land and Water Conservation Fund
MOU:	Memorandum of Understanding
NEPA:	National Environmental Policy Act of 1969
NOAA:	National Oceanic and Atmospheric Administration
NERR:	Natural Estuarine Research Reserve
NWI:	National Wetland Inventory
ODFW:	Oregon Department of Fish and Wildlife
ODLCD:	Oregon Department of Land Conservation and Development
ODSL:	Oregon Division of State Lands
OWEB:	Oregon Watershed Enhancement Board
PAGIS:	Protected Area Geographic Information System
SHPO:	State Historic Preservation Office
TNC:	The Nature Conservancy
TPL:	Trust for Public Lands
USEPA:	United States Environmental Protection Agency
USFWS:	United States Fish and Wildlife Service

APPENDIX B: PROJECT TEAM LIST

The South Slough NERR Cooperative Plan for Watershed Conservation was developed by a Project Team consisting of:

South Slough NERR

Mike Graybill, Manager
Craig Cornu, Stewardship Coordinator

Consultants

Fishman Environmental Services (prime contractor)
- Paul Fishman
- Peter Britz
- Jim Labbe

Collis & Company
- Cathryn Collis

CDA Consulting Group
- Clay Moorhead
- Lauren Schmidt

Nancy Chase, Consultant

Moscato, Ofner & Henningsen, Inc.
- Larry Ofner

Harold Brice, Realty World Bay Area Properties

Cooperative Planning Advisory Committee (CPAC)

CPAC Members:
- John Brands, Central Dock
- Ann Donnelly, Coos Watershed Association
- Tom Green, Bureau of Land Management
- Bob LaPort, Coos County Forestry
- Andy Nasburg, Prudential Seaboard Property
- Raymond Nolan, M.D.
- Bev Owen, Coos County Commission
- Robert Polasky, Confederated Tribes
- Larry Qualman, Qualman Oyster Farm
- Alan Rumbaugh, Oregon International Port of Coos Bay
- Rob Schab, Coos Bay/North Bend Water Board
- Greg Stevens, The World Newspaper
- Nora Terwilliger, Oregon Institute of Marine Biology
- Dan Varoujean, MARZET
- Steve Wickham, The Timber Company
- Marjery Witmer, Betty Kay Charters

(Continued, next page)

Interested Parties (CPAC mailings):

Steve Akehust, Roseboro Timber
Pete DeMani, Coos County Commission
Don Kelly, Menasha Corp.
Rep. Ken Messerle, Oregon Representative
Dan Newton, Roseburg Forest Products
Floyd Page, Westbrook Wood Products
Arnie Roblan, Marshfield High School
Scott Starkey, Menasha Corp.
Steve Westbrook, Westbrook Wood Products
Patty Whereat, Confederated Tribes

APPENDIX C: CHALMER GUSTAFSON WILL

AFFIDAVIT OF ATTESTING
WITNESSES TO WILL

State of Oregon)
) ss.
County of Coos)

The undersigned, being sworn, each say:

On the date of the attached Will of CHALMER W. GUSTAFSON, I saw him sign it. Thereafter and on that same date, I attested that Will by signing my name to it as a witness.

To the best of my knowledge and belief, at that time he was of legal age, of sound mind, and not acting under any restraint, undue influence, duress, or fraudulent misrepresentation.

Subscribed and sworn to before me this 17th day of November, 1987.

Notary Public for Oregon
My Comm. Expires: 4-28-90

WILL

OF

CHALMER W. GUSTAFSON

* * * * * * * * *

I, CHALMER W. GUSTAFSON, a resident of Coos Bay, Coos County, Oregon, do hereby make, publish and declare this to be my Last Will and Testament, and do revoke all prior Wills and Codicils heretofore made by me.

FIRST: I direct that my lawful debts and funeral expenses be promptly paid. I direct my Personal Representative to treat as an obligation of my estate and to pay without any apportionment thereof, all estate, inheritance, or other death taxes or duties imposed and made payable by reason of my death by the laws of the United States or of any state, territory or country. If any other persons shall pay such tax, my Personal Representative shall reimburse such person.

SECOND: I declare that I am single and that I have no children.

THIRD: I direct that my Personal Representative shall upon my death immediately take charge of my body and the embalming thereof. I direct that my body be shipped for burial in my burial plot in Duluth, Minnesota. The deed to that burial plot is in my safe deposit box, it being number 1590 in the United States National Bank branch in Coos Bay, Oregon. I direct that there be no funeral or similar service of any kind conducted as a result of my death.

CHALMER W. GUSTAFSON

FOURTH: I devise unto my friend, JEROME MICHAEL HEINZ, of Tillamook, Oregon, all of the dogs which I own at the time of my death, together with all sporting and recreational equipment, all furnishings and personal effects in my residence which he may desire.

FIFTH: I devise all the rest, residue and remainder of my estate to the State of Oregon, Division of State Lands, for the sole use and purpose of acquiring additional land to be added to and become part of the South Slough National Estuarine Research Reserve, Charleston, Oregon.

In the event that the foregoing devise should fail or be impossible to fulfill for any reason, then I devise the residue of my estate to the State of Oregon, Department of Fish and Wildlife, for the sole use and purpose of acquiring land for a wildlife refuge or to add land to an existing wildlife refuge.

In the event that the foregoing devise should fail or be impossible to fulfill for any reason, then I devise the residue of my estate to Ducks Unlimited, P.O. Box 66300, Chicago, Illinois 60666 for the sole use and purpose of acquiring lands for use as a waterfowl nesting area.

SIXTH: I hereby appoint Benton Flaxel, Attorney at Law, of North Bend, Oregon as Personal Representative of my estate under this, my Will, and direct that he serve as such without being required to give any bond. If Benton Flaxel is unable, unwilling, or unqualified to act as my Personal Representative, I hereby appoint another lawyer presently in the law firm of Flaxel, Todd & Nylander in his place and stead to so serve without bond.

Chalmer W. Gustafson

CHALMER W. GUSTAFSON

I hereby empower my Personal Representative to lease, encumber, sell, exchange or otherwise deal with or dispose of all my property, real or personal, or any part thereof, in such manner, at such times, and upon such terms, as my Personal Representative may deem to be in the best interest of my estate and of the beneficiaries named in this Will; such sale or other disposition to be made at public or private sale, in the discretion of my Personal Representative, without reference to any order of disposition of real or personal property, and without any petition, citation, hearing, order or other action.

IN WITNESS WHEREOF, I have hereunto set my hand at Coos Bay, Oregon, this 17 day of November, 1987.

CHALMER W. GUSTAFSON

On the date of the foregoing Will of CHALMER W. GUSTAFSON, I saw him sign it. Upon his declaration that it was his Will, I signed my name below as a witness.

Vicki L Shaw residing at North Bend, OR

Dawn C Street residing at Coos Bay, OR

CHALMER W. GUSTAFSON

APPENDIX D: 15 CFR PART 921

15 CFR Part 921
National Estuarine Research Reserve System Program Regulations; Final Rule

SUBCHAPTER B—OCEAN AND COASTAL RESOURCE MANAGEMENT

PART 921—NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM REGULATIONS

Subpart A—General

Subpart B—Site Selection, Post Site Selection and Management Plan Development

Subpart C—Acquisition, Development and Preparation of the Final Management Plan

Subpart D—Reserve Designation and Subsequent Operation

Subpart E—Ongoing Oversight, Performance Evaluation and Withdrawal of Designation

Subpart F—Special Research Projects

Subpart G—Special Monitoring Projects

Subpart H—Special Interpretation and Education Projects

Subpart I—General Financial Assistance Provisions

AUTHORITY: Section 315 of the Coastal Zone Management Act, as amended (16 U.S.C. 1461).

SOURCE: 58 FR 38215, July 15, 1993, unless otherwise noted.

Subpart A—General

§ 921.1 Mission, goals and general provisions.

(a) The mission of the National Estuarine Research Reserve Program is the establishment and management, through Federal-state cooperation, of a national system (National Estuarine Research Reserve System or System) of estuarine research reserves (National Estuarine Research Reserves or Reserves) representative of the various regions and estuarine types in the United States. National Estuarine Research Reserves are established to provide opportunities for long-term research, education, and interpretation.

(b) The goals of the Program are to:

(1) Ensure a stable environment for research through long-term protection of National Estuarine Research Reserve resources;

(2) Address coastal management issues identified as significant through coordinated estuarine research within the System;

(3) Enhance public awareness and understanding of estuarine areas and provide suitable opportunities for public education and interpretation;

(4) Promote Federal, state, public and private use of one or more Reserves within the System when such entities conduct estuarine research; and

(5) Conduct and coordinate estuarine research within the System, gathering and making available information necessary for improved understanding and management of estuarine areas.

(c) National Estuarine Research Reserves shall be open to the public to the extent permitted under state and Federal law. Multiple uses are allowed to the degree compatible with each Reserve's overall purpose as provided in the management plan (see § 921.13) and consistent with paragraphs (a) and (b) of this section. Use levels are set by the state where the Reserve is located and analyzed in the management plan. The Reserve management plan shall describe the uses and establish priorities among these uses. The plan shall identify uses requiring a state permit, as well as areas where uses are encouraged or prohibited. Consistent with resource protection and research objectives, public access and use may be restricted to certain areas or components within a Reserve.

(d) Habitat manipulation for research purposes is allowed consistent with the following limitations. Manipulative research activities must be specified in the management plan, be consistent with the mission and goals of the program (see paragraphs (a) and (b) of this section) and the goals and objectives set forth in the Reserve's management plan, and be limited in nature and extent to the minimum manipulative activity necessary to accomplish the stated research objective. Manipulative research activities with a significant or long-term impact on Reserve resources require the prior approval of the state and the National Oceanic and Atmospheric Administration (NOAA). Manipulative research activities which can reasonably be expected to have a significant adverse impact on the estuarine resources and habitat of a Reserve, such that the activities themselves or their resulting short- and long-term consequences compromise the representative character and integrity of a Reserve, are prohibited. Habitat manipulation for resource management purposes is prohibited except as specifically approved by NOAA as: (1) A restoration activity consistent with paragraph (e) of this section; or (2) an activity necessary for the protection of public health or the preservation of other sensitive resources which have been listed or are eligible for protection under relevant Federal or state authority (*e.g.*, threatened/endangered species or significant historical or cultural resources) or if the manipulative activity is a long-term pre-existing use (*i.e.*, has occurred prior to designation) occurring in a buffer area. If habitat manipulation is determined to be necessary for the protection of public health, the preservation of sensitive resources, or if the manipulation is a long-term pre-existing use in a buffer area, then these activities shall be specified in the Reserve management plan in accordance with § 921.13(a)(10) and shall be limited to the reasonable alternative which has the least adverse and shortest term impact on the representative and ecological integrity of the Reserve.

(e) Under the Act an area may be designated as an estuarine Reserve only if the area is a representative estuarine ecosystem that is suitable for long-term research. Many estuarine areas have undergone some ecological change as a result of human activities (*e.g.*, hydrological changes, intentional/unintentional species composition changes—introduced and exotic species). In those areas proposed or designated as National Estuarine Research Reserves, such changes may have diminished the representative character and integrity of the site. Although restoration of degraded areas is not a primary purpose of the System, such activities may be permitted to improve the representative character and integrity of a Reserve. Restoration activities must be carefully planned and approved by NOAA through the Reserve management plan. Historical research may be necessary to determine the "natural" representative state of an estuarine area (*i.e.*, an estuarine ecosystem minimally affected by

human activity or influence). Frequently, restoration of a degraded estuarine area will provide an excellent opportunity for management oriented research.

(f) NOAA may provide financial assistance to coastal states, not to exceed, per Reserve, 50 percent of all actual costs or $5 million whichever amount is less, to assist in the acquisition of land and waters, or interests therein. NOAA may provide financial assistance to coastal states not to exceed 70 percent of all actual costs for the management and operation of, the development and construction of facilities, and the conduct of educational or interpretive activities concerning Reserves (see subpart I). NOAA may provide financial assistance to any coastal state or public or private person, not to exceed 70 percent of all actual costs, to support research and monitoring within a Reserve. Notwithstanding any financial assistance limits established by this Part, when financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, such assistance may be used to pay 100 percent of all actual costs of activities carrier out with this assistance, as long as such funds are available. Predesignation, acquisition and development, operation and management, special research and monitoring, and special education and interpretation awards are available under the National Estuarine Reserve Program. Predesignation awards are for site selection/feasibility, draft management plan preparation and conduct of basic characterization studies. Acquisition and development awards are intended primarily for acquisition of interests in land, facility construction and to develop and/or upgrade research, monitoring and education programs. Operation and management awards provide funds to assist in implementing, operating and managing the administrative, and basic research, monitoring and education programs, outlined in the Reserve management plan. Special research and monitoring awards provide funds to conduct estuarine research and monitoring projects with the System. Special educational and interpretive awards provide funds to conduct estuarine educational and interpretive projects within the System.

(g) Lands already in protected status managed by other Federal agencies, state or local governments, or private organizations may be included within National Estuarine Research Reserves only if the managing entity commits to long-term management consistent with paragraphs (d) and (e) of this section in the Reserve management plan. Federal lands already in protected status may not comprise a majority of the key land and water areas of a Reserve (see § 921.11(c)(3)).

(h) To assist the states in carrying out the Program's goals in an effective manner, NOAA will coordinate a research and education information exchange throughout the National Estuarine Research Reserve System. As part of this role, NOAA will ensure that information and ideas from one Reserve are made available to others in the System. The network will enable Reserves to exchange information and research data with each other, with universities engaged in estuarine research, and with Federal, state, and local agencies. NOAA's objective is a system-wide program of research and monitoring capable of addressing the management issues that affect long-term productivity of our Nation's estuaries.

[58 FR 38215, July 15, 1993, as amended at 62 FR 12540, Mar. 17, 1997; 63 FR 26717, May 14, 1998]

§ 921.2 Definitions.

(a) *Act* means the Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1451 *et seq.*

(b) *Assistant Administrator* means the Assistant Administrator for Ocean Services and Coastal Zone Management or delegee.

(c) *Coastal state* means a state of the United States, in or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. For the purposes of these regulations the term also includes Puerto Rico, the Virgin Islands, Guam, the Commonwealth of the Northern Marianas Islands, the Trust Territories of the Pacific Islands, and American Samoa (see 16 U.S.C. 1453(4)).

(d) *State agency* means an instrumentality of a coastal state to whom the coastal state has delegated the authority and responsibility for the creation and/or management/operation of a National Estuarine Research Reserve. Factors indicative of this authority may include the power to receive and expend funds on behalf of the Reserve, acquire and sell or convey real and personal property interests, adopt rules for the protection of the Reserve, enforce rules applicable to the Reserve, or develop and implement research and education programs for the reserve. For the purposes of these regulations, the terms "coastal state" and "State agency" shall be synonymous.

(e) *Estuary* means that part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage. The term also includes estuary-type areas with measurable freshwater influence and having unimpaired connections with the open sea, and estuary-type areas of the Great Lakes and their connecting waters (see 16 U.S.C. 1453(7)).

(f) *National Estuarine Research Reserve* means an area that is a representative estuarine ecosystem suitable for long-term research, which may include all of the key land and water portion of an estuary, and adjacent transitional areas and uplands constituting to the extent feasible a natural unit, and which is set aside as a natural field laboratory to provide long-term opportunities for research, education, and interpretation on the ecological relationships within the area (see 16 U.S.C. 1453(8)) and meets the requirements of 16 U.S.C. 1461(b). This includes those areas designated as National Estuarine Sanctuaries or Reserves under section 315 of the Act prior to enactment of the Coastal Zone Act Reauthorization Amendments of 1990 and each area subsequently designated as a National Estuarine Research Reserve.

§ 921.3 National Estuarine Research Reserve System Biogeographic Classification Scheme and Estuarine Typologies.

(a) National Estuarine Research Reserves are chosen to reflect regional differences and to include a variety of ecosystem types. A biogeographic classification scheme based on regional variations in the nation's coastal zone has been developed. The biogeographic classification scheme is used to ensure that the National Estuarine Research Reserve System includes at least one site from each region. The estuarine typology system is utilized to ensure that sites in the System reflect the wide range of estuarine types within the United States.

(b) The biogeographic classification scheme, presented in appendix I, contains 29 regions. Figure 1 graphically depicts the biogeographic regions of the United States.

(c) The typology system is presented in appendix II.

§ 921.4 Relationship to other provisions of the Coastal Zone Management Act, and to the Marine Protection, Research and Sanctuaries Act.

(a) The National Estuarine Research Reserve System is intended to provide information to state agencies and other entities involved in addressing coastal management issues. Any coastal state, including those that do not have approved coastal management programs under section 306 of the Act, is eligible for an award under the National Estuarine Research Reserve Program (see § 921.2(c)).

(b) For purposes of consistency review by states with a federally approved coastal management program, the designation of a National Estuarine Research Reserve is deemed to be a Federal activity, which, if directly affecting the state's coastal zone, must be undertaken in a manner consistent to the maximum extent practicable with the approved state coastal management program as provided by section 1456(c)(1) of the Act, and implementing regulations at 15 CFR part 930, subpart C. In accordance with section 1456(c)(1) of the Act and the applicable regulations NOAA will be responsible for certifying that designation of the Reserve is consistent with the state's approved coastal management program. The state must concur with or object to the certification. It is recommended that the lead state agency for Reserve designation consult, at the

earliest practicable time, with the appropriate state officials concerning the consistency of a proposed National Estuarine Research Reserve.

(c) The National Estuarine Research Reserve Program will be administered in close coordination with the National Marine Sanctuary Program (Title III of the Marine Protection, Research and Sanctuaries Act, as amended, 16 U.S.C. 1431-1445), also administered by NOAA. Title III authorizes the Secretary of Commerce to designate discrete areas of the marine environment as National Marine Sanctuaries to protect or restore such areas for their conservation, recreational, ecological, historical, research, educational or esthetic values. National Marine Sanctuaries and Estuarine Research Reserves may not overlap, but may be adjacent.

Subpart B—Site Selection, Post Site Selection and Management Plan Development

§ 921.10 General.

(a) A coastal state may apply for Federal financial assistance for the purpose of site selection, preparation of documents specified in § 921.13 (draft management plan (DMP) and environmental impact statement (EIS)), and the conduct of limited basic characterization studies. The total Federal share of this assistance may not exceed $100,000. Federal financial assistance for preacquisition activities under § 921.11 and § 921.12 is subject to the total $5 million for which each Reserve is eligible for land acquisition. Notwithstanding the above, when financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, such assistance may be used to pay 100 percent of all actual costs of activities carried out with this assistance, as long as such funds are available. In the case of a biogeographic region (see appendix I) shared by two or more coastal states, each state is eligible for Federal financial assistance to establish a separate National Estuarine Research Reserve within their respective portion of the shared biogeographic region. Each separate National Estuarine Research Reserve is eligible for the full complement of funding. Financial assistance application procedures are specified in subpart I.

(b) In developing a Reserve program, a state may choose to develop a multiple-site Reserve reflecting a diversity of habitats in a single biogeographic region. A multiple-site Reserve allows the state to develop complementary research and educational programs within the individual components of its multi-site Reserve. Multiple-site Reserves are treated as one Reserve in terms of financial assistance and development of an overall management framework and plan. Each individual site of a proposed multiple-site Reserve shall be evaluated both separately under § 921.11(c) and collectively as part of the site selection process. A coastal state may propose to establish a multiple-site Reserve at the time of the initial site selection, or at any point in the development or operation of the Reserve. If the state decides to develop a multiple-site National Estuarine Research Reserve after the initial acquisition and development award is made for a single site, the proposal is subject to the requirements set forth in § 921.33(b). However, a state may not propose to add one or more sites to an already designated Reserve if the operation and management of such Reserve has been found deficient and uncorrected or the research conducted is not consistent with the Estuarine Research Guidelines referenced in § 921.51. In addition, Federal funds for the acquisition of a multiple-site Reserve remain limited to $5,000,000 (see § 921.20). The funding for operation of a multiple-site Reserve is limited to the maximum allowed for any one Reserve per year (see § 921.32(c)) and preacquisition funds are limited to $100,000 per Reserve. Notwithstanding the above, when financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, such assistance may be used to pay 100 percent of all actual costs of activities carrier out with this assistance, as long as such funds are available.

[58 FR 38215, July 15, 1993, as amended at 63 FR 26717, May 14, 1998]

§ 921.11 Site selection and feasibility.

(a) A coastal state may use Federal funds to establish and implement a site selection process which is approved by NOAA.

(b) In addition to the requirements set forth in subpart I, a request for Federal funds for site selection must contain the following programmatic information:

(1) A description of the proposed site selection process and how it will be implemented in conformance with the biogeographic classification scheme and typology (§ 921.3);

(2) An identification of the site selection agency and the potential management agency; and

(3) A description of how public participation will be incorporated into the process (see § 921.11(d)).

(c) As part of the site selection process, the state and NOAA shall evaluate and select the final site(s). NOAA has final authority in approving such sites. Site selection shall be guided by the following principles:

(1) The site's contribution to the biogeographical and typological balance of the National Estuarine Research Reserve System. NOAA will give priority consideration to proposals to establish Reserves in biogeographic regions or subregions or incorporating types that are not represented in the system. (see the biogeographic classification scheme and typology set forth in § 921.3 and appendices I and II);

(2) The site's ecological characteristics, including its biological productivity, diversity of flora and fauna, and capacity to attract a broad range of research and educational interests. The proposed site must be a representative estuarine ecosystem and should, to the maximum extent possible, be an estuarine ecosystem minimally affected by human activity or influence (see § 921.1(e)).

(3) Assurance that the site's boundaries encompass an adequate portion of the key land and water areas of the natural system to approximate an ecological unit and to ensure effective conservation. Boundary size will vary greatly depending on the nature of the ecosystem. Reserve boundaries must encompass the area within which adequate control has or will be established by the managing entity over human activities occurring within the Reserve. Generally, Reserve boundaries will encompass two areas: Key land and water areas (or "core area") and a buffer zone. Key land and water areas and a buffer zone will likely require significantly different levels of control (see § 921.13(a)(7)). The term "key land and water areas" refers to that core area within the Reserve that is so vital to the functioning of the estuarine ecosystem that it must be under a level of control sufficient to ensure the long-term viability of the Reserve for research on natural processes. Key land and water areas, which comprise the core area, are those ecological units of a natural estuarine system which preserve, for research purposes, a full range of significant physical, chemical and biological factors contributing to the diversity of fauna, flora and natural processes occurring within the estuary. The determination of which land and water areas are "key" to a particular Reserve must be based on specific scientific knowledge of the area. A basic principle to follow when deciding upon key land and water areas is that they should encompass resources representative of the total ecosystem, and which if compromised could endanger the research objectives of the Reserve. The term *buffer zone* refers to an area adjacent to or surrounding key land and water areas and essential to their integrity. Buffer zones protect the core area and provide additional protection for estuarine-dependent species, including those that are rare or endangered. When determined appropriate by the state and approved by NOAA, the buffer zone may also include an area necessary for facilities required for research and interpretation. Additionally, buffer zones should be established sufficient to accommodate a shift of the core area as a result of biological, ecological or geomorphological change which reasonably could be expected to occur. National Estuarine Research Reserves may include existing Federal or state lands already in a protected status where mutual benefit can be enhanced. However, NOAA will not approve a site for potential National Estuarine Research Reserve status that is dependent primarily upon the inclusion

of currently protected Federal lands in order to meet the requirements for Reserve status (such as key land and water areas). Such lands generally will be included within a Reserve to serve as a buffer or for other ancillary purposes; and may be included, subject to NOAA approval, as a limited portion of the core area;

(4) The site's suitability for long-term estuarine research, including ecological factors and proximity to existing research facilities and educational institutions;

(5) The site's compatibility with existing and potential land and water uses in contiguous areas as well as approved coastal and estuarine management plans; and

(6) The site's importance to education and interpretive efforts, consistent with the need for continued protection of the natural system.

(d) Early in the site selection process the state must seek the views of affected landowners, local governments, other state and Federal agencies and other parties who are interested in the area(s) being considered for selection as a potential National Estuarine Research Reserve. After the local government(s) and affected landowner(s) have been contacted, at least one public meeting shall be held in the vicinity of the proposed site. Notice of such a meeting, including the time, place, and relevant subject matter, shall be announced by the state through the area's principal newspaper at least 15 days prior to the date of the meeting and by NOAA in the FEDERAL REGISTER.

(e) A state request for NOAA approval of a proposed site (or sites in the case of a multi-site Reserve) must contain a description of the proposed site(s) in relationship to each of the site selection principals (§ 921.11(c)) and the following information:

(1) An analysis of the proposed site(s) based on the biogeographical scheme/typology discussed in § 921.3 and set forth in appendices I and II;

(2) A description of the proposed site(s) and its (their) major resources, including location, proposed boundaries, and adjacent land uses. Maps are required;

(3) A description of the public participation process used by the state to solicit the views of interested parties, a summary of comments, and, if interstate issues are involved, documentation that the Governor(s) of the other affected state(s) has been contacted. Copies of all correspondence, including contact letters to all affected landowners must be appended;

(4) A list of all sites considered and a brief statement of the reasons why a site was not preferred; and

(5) A nomination of the proposed site(s) for designation as a National Estuarine Research Reserve by the Governor of the coastal state in which the state is located.

(f) A state proposing to reactivate an inactive site, previously approved by NOAA for development as an Estuarine Sanctuary or Reserve, may apply for those funds remaining, if any, provided for site selection and feasibility (§ 921.11a)) to determine the feasibility of reactivation. This feasibility study must comply with the requirements set forth in § 921.11 (c) through (e).

§ 921.12 Post site selection.

(a) At the time of the coastal state's request for NOAA approval of a proposed site, the state may submit a request for funds to develop the draft management plan and for preparation of the EIS. At this time, the state may also submit a request for the remainder of the predesignation funds to perform a limited basic characterization of the physical, chemical and biological characteristics of the site approved by NOAA necessary for providing EIS information to NOAA. The state's request for these post site selection funds must be accompanied by the information specified in subpart I and, for draft management plan development and EIS information collection, the following programmatic information:

(1) A draft management plan outline (see § 921.13(a) below); and

(2) An outline of a draft memorandum of understanding (MOU) between the state and NOAA detailing the Federal-state role in Reserve management during the initial period of Federal funding and expressing the state's long-term commitment to operate and manage the Reserve.

(b) The state is eligible to use the funds referenced in § 921.12(a) after the proposed site is approved by NOAA under the terms of § 921.11.

§ 921.13 Management plan and environmental impact statement development.

(a) After NOAA approves the state's proposed site and application for funds submitted pursuant to § 921.12, the state may begin draft management plan development and the collection of information necessary for the preparation by NOAA of an EIS. The state shall develop a draft management plan, including an MOU. The plan shall set out in detail:

(1) Reserve goals and objectives, management issues, and strategies or actions for meeting the goals and objectives;

(2) An administrative plan including staff roles in administration, research, education/interpretation, and surveillance and enforcement;

(3) A research plan, including a monitoring design;

(4) An education/interpretive plan;

(5) A plan for public access to the Reserve;

(6) A construction plan, including a proposed construction schedule, general descriptions of proposed developments and general cost estimates. Information should be provided for proposed minor construction projects in sufficient detail to allow these projects to begin in the initial phase of acquisition and development. A categorical exclusion, environmental assessment, or EIS may be required prior to construction;

(7)(i) An acquisition plan identifying the ecologically key land and water areas of the Reserve, ranking these areas according to their relative importance, and including a strategy for establishing adequate long-term state control over these areas sufficient to provide protection for Reserve resources to ensure a stable environment for research. This plan must include an identification of ownership within the proposed Reserve boundaries, including land already in the public domain; the method(s) of acquisition which the state proposes to use—acquisition (including less-than-fee simple options) to establish adequate long-term state control; an estimate of the fair market value of any property interest—which is proposed for acquisition; a schedule estimating the time required to complete the process of establishing adequate state control of the proposed research reserve; and a discussion of any anticipated problems. In selecting a preferred method(s) for establishing adequate state control over areas within the proposed boundaries of the Reserve, the state shall perform the following steps for each parcel determined to be part of the key land and water areas (control over which is necessary to protect the integrity of the Reserve for research purposes), and for those parcels required for research and interpretive support facilities or buffer purposes:

(A) Determine, with appropriate justification, the minimum level of control(s) required [*e.g.*, management agreement, regulation, less-than-fee simple property interest (*e.g.*, conservation easement), fee simple property acquisition, or a combination of these approaches]. This does not preclude the future necessity of increasing the level of state control;

(B) Identify the level of existing state control(s);

(C) Identify the level of additional state control(s), if any, necessary to meet the minimum requirements identified in paragraph (a)(7)(i)(A) of this section;

(D) Examine all reasonable alternatives for attaining the level of control identified in paragraph (a)(7)(i)(C) of this section, and perform a cost analysis of each; and

(E) Rank, in order of cost, the methods (including acquisition) identified in paragraph (a)(7)(i)(D) of this section.

(ii) An assessment of the relative cost-effectiveness of control alternatives shall include a reasonable estimate of both short-term costs (*e.g.*, acquisition of property interests, regulatory program development including associated enforcement costs, negotiation, adjudication, etc.) and long-term costs (*e.g.*, monitoring, enforcement, adjudication, management and coordination). In selecting a preferred method(s) for establishing adequate state control over each parcel examined

under the process described above, the state shall give priority consideration to the least costly method(s) of attaining the minimum level of long-term control required. Generally, with the possible exception of buffer areas required for support facilities, the level of control(s) required for buffer areas will be considerably less than that required for key land and water areas. This acquisition plan, after receiving the approval of NOAA, shall serve as a guide for negotiations with landowners. A final boundary for the reserve shall be delineated as a part of the final management plan;

(8) A resource protection plan detailing applicable authorities, including allowable uses, uses requiring a permit and permit requirements, any restrictions on use of the research reserve, and a strategy for research reserve surveillance and enforcement of such use restrictions, including appropriate government enforcement agencies;

(9) If applicable, a restoration plan describing those portions of the site that may require habitat modification to restore natural conditions;

(10) If applicable, a resource manipulation plan, describing those portions of the Reserve buffer in which long-term pre-existing (prior to designation) manipulation for reasons not related to research or restoration is occurring. The plan shall explain in detail the nature of such activities, shall justify why such manipulation should be permitted to continue within the reserve buffer; and shall describe possible effects of this manipulation on key land and water areas and their resources;

(11) A proposed memorandum of understanding (MOU) between the state and NOAA regarding the Federal-state relationship during the establishment and development of the National Estuarine Research Reserve, and expressing a long-term commitment by the state to maintain and manage the Reserve in accordance with section 315 of the Act, 16 U.S.C. 1461, and applicable regulations. In conjunction with the MOU, and where possible under state law, the state will consider taking appropriate administrative or legislative action to ensure the long-term protection and operation of the National Estuarine Research Reserve. If other MOUs are necessary (such as with a Federal agency, another state agency or private organization), drafts of such MOUs must be included in the plan. All necessary MOU's shall be signed prior to Reserve designation; and

(12) If the state has a federally approved coastal management program, a certification that the National Estuarine Research Reserve is consistent to the maximum extent practicable with that program. See §§921.4(b) and 921.30(b).

(b) Regarding the preparation of an EIS under the National Environmental Policy Act on a National Estuarine Research Reserve proposal, the state and NOAA shall collect all necessary information concerning the socioeconomic and environmental impacts associated with implementing the draft management plan and feasible alternatives to the plan. Based on this information, the state will draft and provide NOAA with a preliminary EIS.

(c) Early in the development of the draft management plan and the draft EIS, the state and NOAA shall hold a scoping meeting (pursuant to NEPA) in the area or areas most affected to solicit public and government comments on the significant issues related to the proposed action. NOAA will publish a notice of the meeting in the FEDERAL REGISTER at least 15 days prior to the meeting. The state shall be responsible for publishing a similar notice in the local media.

(d) NOAA will publish a FEDERAL REGISTER notice of intent to prepare a draft EIS. After the draft EIS is prepared and filed with the Environmental Protection Agency (EPA), a Notice of Availability of the draft EIS will appear in the FEDERAL REGISTER. Not less than 30 days after publication of the notice, NOAA will hold at least one public hearing in the area or areas most affected by the proposed national estuarine research reserve. The hearing will be held no sooner than 15 days after appropriate notice of the meeting has been given in the principal news media by the state and in the FEDERAL REGISTER by NOAA. After a 45-day comment period, a final EIS will be prepared by the state and NOAA.

Subpart C—Acquisition, Development and Preparation of the Final Management Plan

§ 921.20 General.

The acquisition and development period is separated into two major phases. After NOAA approval of the site, draft management plan and draft MOU, and completion of the final EIS, a coastal state is eligible for an initial acquisition and development award(s). In this initial phase, the state should work to meet the criteria required for formal research reserve designation; *e.g.*, establishing adequate state control over the key land and water areas as specified in the draft management plan and preparing the final management plan. These requirements are specified in § 921.30. Minor construction in accordance with the draft management plan may also be conducted during this initial phase. The initial acquisition and development phase is expected to last no longer than three years. If necessary, a longer time period may be negotiated between the state and NOAA. After Reserve designation, a state is eligible for a supplemental acquisition and development award(s) in accordance with § 921.31. In this post-designation acquisition and development phase, funds may be used in accordance with the final management plan to construct research and educational facilities, complete any remaining land acquisition, for program development, and for restorative activities identified in the final management plan. In any case, the amount of Federal financial assistance provided to a coastal state with respect to the acquisition of lands and waters, or interests therein, for any one National Estuarine Research Reserve may not exceed an amount equal to 50 percent of the costs of the lands, waters, and interests therein or $5,000,000, whichever amount is less, except when the financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, in which case the assistance may be used to pay 100 percent of all actual costs of activities carrier out with this assistance, as long as such funds are available.

[58 FR 38215, July 15, 1993, as amended at 62 FR 12540, Mar. 17, 1997; 63 FR 26717, May 14, 1998]

§ 921.21 Initial acquisition and development awards.

(a) Assistance is provided to aid the recipient prior to designation in:

(1) Acquiring a fee simple or less-than-fee simple real property interest in land and water areas to be included in the Reserve boundaries (see § 921.13(a)(7); § 921.30(d));

(2) Minor construction, as provided in paragraphs (b) and (c) of this section;

(3) Preparing the final management plan; and

(4) Initial management costs, *e.g.*, for implementing the NOAA approved draft management plan, hiring a Reserve manager and other staff as necessary and for other management-related activities. Application procedures are specified in subpart I.

(b) The expenditure of Federal and state funds on major construction activities is not allowed during the initial acquisition and development phase. The preparation of architectural and engineering plans, including specifications, for any proposed construction, or for proposed restorative activities, is permitted. In addition, minor construction activities, consistent with paragraph (c) of this section also are allowed. The NOAA-approved draft management plan must, however, include a construction plan and a public access plan before any award funds can be spent on construction activities.

(c) Only minor construction activities that aid in implementing portions of the management plan (such as boat ramps and nature trails) are permitted during the initial acquisition and development phase. No more than five (5) percent of the initial acquisition and development award may be expended on such activities. NOAA must make a specific determination, based on the final EIS, that the construction activity will not be detrimental to the environment.

(d) Except as specifically provided in paragraphs (a) through (c) of this section, construction projects, to be funded in whole or in part under an acquisition and development award(s), may not be initiated until the Reserve receives formal designation (see § 921.30). This requirement has been adopted to ensure that substantial progress in establishing adequate state control over key land and water areas has been made and that a final management plan is completed before major sums are spent on construction. Once substantial progress in establishing adequate state control/acquisition has been made, as defined by the state in the management plan, other activities guided by the final management plan may begin with NOAA's approval.

(e) For any real property acquired in whole or part with Federal funds for the Reserve, the state shall execute suitable title documents to include substantially the following provisions, or otherwise append the following provisions in a manner acceptable under applicable state law to the official land record(s):

(1) Title to the property conveyed by this deed shall vest in the [recipient of the award granted pursuant to section 315 of the Act, 16 U.S.C. 1461 or other NOAA approved state agency] subject to the condition that the designation of the [name of National Estuarine Reserve] is not withdrawn and the property remains part of the federally designated [name of National Estuarine Research Reserve]; and

(2) In the event that the property is no longer included as part of the Reserve, or if the designation of the Reserve of which it is part is withdrawn, then NOAA or its successor agency, after full and reasonable consultation with the State, may exercise the following rights regarding the disposition of the property:

(i) The recipient may retain title after paying the Federal Government an amount computed by applying the Federal percentage of participation in the cost of the original project to the current fair market value of the property;

(ii) If the recipient does not elect to retain title, the Federal Government may either direct the recipient to sell the property and pay the Federal Government an amount computed by applying the Federal percentage of participation in the cost of the original project to the proceeds from the sale (after deducting actual and reasonable selling and repair or renovation expenses, if any, from the sale proceeds), or direct the recipient to transfer title to the Federal Government. If directed to transfer title to the Federal Government, the recipient shall be entitled to compensation computed by applying the recipient's percentage of participation in the cost of the original project to the current fair market value of the property; and

(iii) Fair market value of the property must be determined by an independent appraiser and certified by a responsible official of the state, as provided by Department of Commerce regulations at 15 CFR part 24, and Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally assisted programs at 15 CFR part 11.

(f) Upon instruction by NOAA, provisions analogous to those of § 921.21(e) shall be included in the documentation underlying less-then-fee-simple interests acquired in whole or part with Federal funds.

(g) Federal funds or non-Federal matching share funds shall not be spent to acquire a real property interest in which the state will own the land concurrently with another entity unless the property interest has been identified as a part of an acquisition strategy pursuant to § 921.13(7) which has been approved by NOAA prior to the effective date of these regulations.

(h) Prior to submitting the final management plan to NOAA for review and approval, the state shall hold a public meeting to receive comment on the plan in the area affected by the estuarine research reserve. NOAA will publish a notice of the meeting in the FEDERAL REGISTER at least 15 days prior to the public meeting. The state shall be responsible for having a similar notice published in the local newspaper(s).

Subpart D—Reserve Designation and Subsequent Operation

§ 921.30 Designation of National Estuarine Research Reserves.

(a) The Under Secretary may designate an area proposed for designation by the Governor of the state in which it is located, as a National Esturaine Research Reserve if the Under Secretary finds:

(1) The area is a representative estuarine ecosystem that is suitable for long-term research and contributes to the biogeographical and typological balance of the System;

(2) Key land and water areas of the proposed Reserve, as identified in the management plan, are under adequate state control sufficient to provide long-term protection for reserve resources to ensure a stable environment for research;

(3) Designation of the area as a Reserve will serve to enhance public awareness and understanding of estuarine areas, and provide suitable opportunities for public education and interpretation;

(4) A final management plan has been approved by NOAA;

(5) An MOU has been signed between the state and NOAA ensuring a long-term commitment by the state to the effective operation and implementation of the area as a National Estuarine Research Reserve;

(6) All MOU's necessary for reserve management (*i.e.*, with relevant Federal, state, and local agencies and/or private organizations) have been signed; and

(7) The coastal state in which the area is located has complied with the requirements of subpart B.

(b) NOAA will determine whether the designation of a National Estuarine Research Reserve in a state with a federally approved coastal zone management program directly affects the coastal zone. If the designation is found to directly affect the coastal zone, NOAA will make a consistency determination pursuant to § 307(c)(1) of the Act, 16 U.S.C. 1456, and 15 CFR part 930, subpart C. See § 921.4(b). The results of this consistency determination will be published in the FEDERAL REGISTER when the notice of designation is published. See § 921.30(c).

(c) NOAA will publish the notice of designation of a National Estuarine Research Reserve in the FEDERAL REGISTER. The state shall be responsible for having a similar notice published in the local media.

(d) The term *state control* in § 921.30(a)(3) does not necessarily require that key land and water areas be owned by the state in fee simple. Acquisition of less-than-fee simple interests *e.g.*, conservation easements) and utilization of existing state regulatory measures are encouraged where the state can demonstrate that these interests and measures assure adequate long-term state control consistent with the purposes of the research reserve (see also §§ 921.13(a)(7); 921.21(g)). Should the state later elect to purchase an interest in such lands using NOAA funds, adequate justification as to the need for such acquisition must be provided to NOAA.

§ 921.31 Supplemental acquisition and development awards.

After National Estuarine Research Reserve designation, and as specified in the approved management plan, a coastal state may request a supplemental acquisition and/or development award(s) for acquiring additional property interests identified in the management plan as necessary to strengthen protection of key land and water areas and to enhance long-term protection of the area for research and education, for facility and exhibit construction, for restorative activities identified in the approved management plan, for administrative purposes related to acquisition and/or facility construction and to develop and/or upgrade research, monitoring and education/interpretive programs. Federal financial assistance provided to a National Estuarine Research Reserve for supplemental development costs directly associated with facility construction (i.e., major construction activities) may not exceed 70 percent of the total project cost, except when the financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, in which case the assistance may be used to pay 100

percent of the costs. NOAA must make a specific determination that the construction activity will not be detrimental to the environment. Acquisition awards for the acquisition of lands or waters, or interests therein, for any one reserve may not exceed an amount equal to 50 percent of the costs of the lands, waters, and interests therein of $5,000,000, whichever amount is less, except when the financial assistance is provided from amounts recovered as result of damage to natural resources located in the coastal zone, in which case the assistance may be used to pay 100 percent of all actual costs of activities carrier out with this assistance, as long as such funds are available. In the case of a biogeographic region (see appendix I) shared by two or more states, each state is eligible independently for Federal financial assistance to establish a separate National Estuarine Research Reserve within their respective portion of the shared biogeographic region. Application procedures are specified in subpart I. Land acquisition must follow the procedures specified in §§ 921.13(a)(7), 921.21(e) and (f) and 921.81.

[58 FR 38215, July 15, 1993, as amended at 62 FR 12540, Mar. 17, 1997; 63 FR 26717, May 14, 1998]

§ 921.32 Operation and management: Implementation of the management plan.

(a) After the Reserve is formally designated, a coastal state is eligible to receive Federal funds to assist the state in the operation and management of the Reserve including the management of research, monitoring, education, and interpretive programs. The purpose of this Federally funded operation and management phase is to implement the approved final management plan and to take the necessary steps to ensure the continued effective operation of the Reserve.

(b) State operation and management of the Reserves shall be consistent with the mission, and shall further the goals of the National Estuarine Research Reserve program (see § 921.1).

(c) Federal funds are available for the operation and management of the Reserve. Federal funds provided pursuant to this section may not exceed 70 percent of the total cost of operating and managing the Reserve for any one year, except when the financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, in which case the assistance may be used to pay 100 percent of the costs. In the case of a biogeographic region (see Appendix I) shared by two or more states, each state is eligible for Federal financial assistance to establish a separate Reserve within their respective portion of the shared biogeographic region (see § 921.10).

(d) Operation and management funds are subject to the following limitations:

(1) Eligible coastal state agencies may apply for up to the maximum share available per Reserve for that fiscal year. Share amounts will be announced annually by letter from the Sanctuary and Reserves Division to all participating states. This letter will be provided as soon as practicable following approval of the Federal budget for that fiscal year.

(2) No more than ten percent of the total amount (state and Federal shares) of each operation and management award may be used for construction-type activities.

[58 FR 38215, July 15, 1993, as amended at 62 FR 12541, Mar. 17, 1997]

§ 921.33 Boundary changes, amendments to the management plan, and addition of multiple-site components.

(a) Changes in the boundary of a Reserve and major changes to the final management plan, including state laws or regulations promulgated specifically for the Reserve, may be made only after written approval by NOAA. NOAA may require public notice, including notice in the FEDERAL REGISTER and an opportunity for public comment before approving a boundary or management plan change. Changes in the boundary of a Reserve involving the acquisition of properties not listed in the management plan or final EIS require public notice and the opportunity for comment; in certain cases, a categorical exclusion, an environmental assessment and possibly an environmental impact statement may be required.

NOAA will place a notice in the FEDERAL REGISTER of any proposed changes in Reserve boundaries or proposed major changes to the final management plan. The state shall be responsible for publishing an equivalent notice in the local media. See also requirements of §§ 921.4(b) and 921.13(a)(11).

(b) As discussed in § 921.10(b), a state may choose to develop a multiple-site National Estuarine Research Reserve after the initial acquisition and development award for a single site has been made. NOAA will publish notice of the proposed new site including an invitation for comments from the public in the FEDERAL REGISTER. The state shall be responsible for publishing an equivalent notice in the local newspaper(s). An EIS, if required, shall be prepared in accordance with section § 921.13 and shall include an administrative framework for the multiple-site Reserve and a description of the complementary research and educational programs within the Reserve. If NOAA determines, based on the scope of the project and the issues associated with the additional site(s), that an environmental assessment is sufficient to establish a multiple-site Reserve, then the state shall develop a revised management plan which, concerning the additional component, incorporates each of the elements described in § 921.13(a). The revised management plan shall address goals and objectives for all components of the multi-site Reserve and the additional component's relationship to the original site(s).

(c) The state shall revise the management plan for a Reserve at least every five years, or more often if necessary. Management plan revisions are subject to (a) above.

(d) NOAA will approve boundary changes, amendments to management plans, or the addition of multiple-site components, by notice in the FEDERAL REGISTER. If necessary NOAA will revise the designation document (findings) for the site.

Subpart E—Ongoing Oversight, Performance Evaluation and Withdrawal of Designation

§ 921.40 Ongoing oversight and evaluations of designated National Estuarine Research Reserves.

(a) The Sanctuaries and Reserve Division shall conduct, in accordance with section 312 of the Act and procedures set forth in 15 CFR part 928, ongoing oversight and evaluations of Reserves. Interim sanctions may be imposed in accordance with regulations promulgated under 15 CFR part 928.

(b) The Assistant Administrator may consider the following indicators of non-adherence in determining whether to invoke interim sanctions:

(1) Inadequate implementation of required staff roles in administration, research, education/interpretation, and surveillance and enforcement. Indicators of inadequate implementation could include: No Reserve Manager, or no staff or insufficient staff to carry out the required functions.

(2) Inadequate implementation of the required research plan, including the monitoring design. Indicators of inadequate implementation could include: Not carrying out research or monitoring that is required by the plan, or carrying out research or monitoring that is inconsistent with the plan.

(3) Inadequate implementation of the required education/interpretation plan. Indicators of inadequate implementation could include: Not carrying out education or interpretation that is required by the plan, or carrying out education/interpretation that is inconsistent with the plan.

(4) Inadequate implementation of public access to the Reserve. Indicators of inadequate implementation of public access could include: Not providing necessary access, giving full consideration to the need to keep some areas off limits to the public in order to protect fragile resources.

(5) Inadequate implementation of facility development plan. Indicators of inadequate implementation could include: Not taking action to propose and

budget for necessary facilities, or not undertaking necessary construction in a timely manner when funds are available.

(6) Inadequate implementation of acquisition plan. Indicators of inadequate implementation could include: Not pursuing an aggressive acquisition program with all available funds for that purpose, not requesting promptly additional funds when necessary, and evidence that adequate long-term state control has not been established over some core or buffer areas, thus jeopardizing the ability to protect the Reserve site and resources from offsite impacts.

(7) Inadequate implementation of Reserve protection plan. Indicators of inadequate implementation could include: Evidence of non-compliance with Reserve restrictions, insufficient surveillance and enforcement to assure that restrictions on use of the Reserve are adhered to, or evidence that Reserve resources are being damaged or destroyed as a result of the above.

(8) Failure to carry out the terms of the signed Memorandum of Understanding (MOU) between the state and NOAA, which establishes a long-term state commitment to maintain and manage the Reserve in accordance with section 315 of the Act. Indicators of failure could include: State action to allow incompatible uses of state-controlled lands or waters in the Reserve, failure of the state to bear its fair share of costs associated with long-term operation and management of the Reserve, or failure to initiate timely updates of the MOU when necessary.

§ 921.41 Withdrawal of designation.

The Assistant Administrator may withdraw designation of an estuarine area as a National Estuarine Research Reserve pursuant to and in accordance with the procedures of section 312 and 315 of the Act and regulations promulgated thereunder.

Subpart F—Special Research Projects

§ 921.50 General.

(a) To stimulate high quality research within designated National Estuarine Research Reserves, NOAA may provide financial support for research projects which are consistent with the Estuarine Research Guidelines referenced in § 921.51. Research awards may be awarded under this subpart to only those designated Reserves with approved final management plans. Although research may be conducted within the immediate watershed of the Reserve, the majority of research activities of any single research project funded under this subpart may be conducted within Reserve boundaries. Funds provided under this subpart are primarily used to support management-related research projects that will enhance scientific understanding of the Reserve ecosystem, provide information needed by Reserve management and coastal management decision-makers, and improve public awareness and understanding of estuarine ecosystems and estuarine management issues. Special research projects may be oriented to specific Reserves; however, research projects that would benefit more than one Reserve in the National Estuarine Reserve Research System are encouraged.

(b) Funds provided under this subpart are available on a competitive basis to any coastal state or qualified public or private person. A notice of available funds will be published in the FEDERAL REGISTER. Special research project funds are provided in addition to any other funds available to a coastal state under the Act. Federal funds provided under this subpart may not exceed 70 percent of the total cost of the project, consistent with § 921.81(e)(4) ("allowable costs"), except when the financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, in which case the assistance may be used to pay 100 percent of the costs.

[58 FR 38215, July 15, 1993, as amended at 62 FR 12541, Mar. 17, 1997]

§ 921.51 Estuarine research guidelines.

(a) Research within the National Estuarine Research Reserve System shall be conducted in a manner consistent with Estuarine Research Guidelines developed by NOAA.

(b) A summary of the Estuarine Research Guidelines is published in the

FEDERAL REGISTER as a part of the notice of available funds discussed in § 921.50(c).

(c) The Estuarine Research Guidelines are reviewed annually by NOAA. This review will include an opportunity for comment by the estuarine research community.

§ 921.52 Promotion and coordination of estuarine research.

(a) NOAA will promote and coordinate the use of the National Estuarine Research Reserve System for research purposes.

(b) NOAA will, in conducting or supporting estuarine research other than that authorized under section 315 of the Act, give priority consideration to research that make use of the National Estuarine Research Reserve System.

(c) NOAA will consult with other Federal and state agencies to promote use of one or more research reserves within the National Estuarine Research Reserve System when such agencies conduct estuarine research.

Subpart G—Special Monitoring Projects

§ 921.60 General.

(a) To provide a systematic basis for developing a high quality estuarine resource and ecosystem information base for National Estuarine Research Reserves and, as a result, for the System, NOAA may provide financial support for basic monitoring programs as part of operations and management under § 921.32. Monitoring funds are used to support three major phases of a monitoring program:

(1) Studies necessary to collect data for a comprehensive site description/characterization;

(2) Development of a site profile; and

(3) Formulation and implementation of a monitoring program.

(b) Additional monitoring funds may be available on a competitive basis to the state agency responsible for Reserve management or a qualified public or private person or entity. However, if the applicant is other than the managing entity of a Reserve that applicant must submit as a part of the application a letter from the Reserve manager indicating formal support of the application by the managing entity of the Reserve. Funds provided under this subpart for special monitoring projects are provided in addition to any other funds available to a coastal state under the Act. Federal funds provided under this subpart may not exceed 70 percent of the total cost of the project, consistent with § 921.81(e)(4) ("allowable costs"), except when the financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, in which case the assistance may be used to pay 100 percent of the costs.

(c) Monitoring projects funded under this subpart must focus on the resources within the boundaries of the Reserve and must be consistent with the applicable sections of the Estuarine Research Guidelines referenced in § 921.51. Portions of the project may occur within the immediate watershed of the Reserve beyond the site boundaries. However, the monitoring proposal must demonstrate why this is necessary for the success of the project.

[58 FR 38215, July 15, 1993, as amended at 62 FR 12541, Mar. 17, 1997]

Subpart H—Special Interpretation and Education Projects

§ 921.70 General.

(a) To stimulate the development of innovative or creative interpretive and educational projects and materials to enhance public awareness and understanding of estuarine areas, NOAA may fund special interpretive and educational projects in addition to those activities provided for in operations and management under § 921.32. Special interpretive and educational awards may be awarded under this subpart to only those designated Reserves with approved final management plans.

(b) Funds provided under this subpart may be available on a competitive basis to any state agency. However, if the applicant is other than the managing entity of a Reserve, that applicant must submit as a part of the application a letter from the Reserve manager indicating formal support of the application by the managing entity of the Reserve. These funds are provided in

addition to any other funds available to a coastal state under the Act. Federal funds provided under this subpart may not exceed 70 percent of the total cost of the project, consistent with §921.81(e)(4) ("allowable costs"), except when the financial assistance is provided from amounts recovered as a result of damage to natural resources located in the coastal zone, in which case the assistance may be used to pay 100 percent of the costs.

(c) Applicants for education/interpretive projects that NOAA determines benefit the entire National Estuarine Research Reserve System may receive Federal assistance of up to 100% of project costs.

[58 FR 38215, July 15, 1993, as amended at 62 FR 12541, Mar. 17, 1997]

Subpart I—General Financial Assistance Provisions

§921.80 Application information.

(a) Only a coastal state may apply for Federal financial assistance awards for preacquisition, acquisition and development, operation and management, and special education and interpretation projects under subpart H. Any coastal state or public or private person may apply for Federal financial assistance awards for special estuarine research or monitoring projects under subpart G. The announcement of opportunities to conduct research in the System appears on an annual basis in the FEDERAL REGISTER. If a state is participating in the national Coastal Zone Management Program, the applicant for an award under section 315 of the Act shall notify the state coastal management agency regarding the application.

(b) An original and two copies of the formal application must be submitted at least 120 working days prior to the proposed beginning of the project to the following address: Sanctuaries and Reserves Division Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration, 1825 Connecticut Avenue, NW., suite 714, Washington, DC 20235. Application for Federal Assistance Standard Form 424 (Non-construction Program) constitutes the formal application for site selection, post-site selection, operation and management, research, and education and interpretive awards. The Application for Federal Financial Assistance Standard Form 424 (Construction Program) constitutes the formal application for land acquisition and development awards. The application must be accompanied by the information required in subpart B (predesignation), subpart C and §921.31 (acquisition and development), and §921.32 (operation and management) as applicable. Applications for development awards for construction projects, or restorative activities involving construction, must include a preliminary engineering report, a detailed construction plan, a site plan, a budget and categorical exclusion check list or environmental assessment. All applications must contain back up data for budget estimates (Federal and non-Federal shares), and evidence that the application complies with the Executive Order 12372, "Intergovernmental Review of Federal Programs." In addition, applications for acquisition and development awards must contain:

(1) State Historic Preservation Office comments;

(2) Written approval from NOAA of the draft management plan for initial acquisition and development award(s); and

(3) A preliminary engineering report for construction activities.

§921.81 Allowable costs.

(a) Allowable costs will be determined in accordance with applicable OMB Circulars and guidance for Federal financial assistance, the financial assistant agreement, these regulations, and other Department of Commerce and NOAA directives. The term "costs" applies to both the Federal and non-Federal shares.

(b) Costs claimed as charges to the award must be reasonable, beneficial and necessary for the proper and efficient administration of the financial assistance award and must be incurred during the award period.

(c) Costs must not be allocable to or included as a cost of any other Federally-financed program in either the current or a prior award period.

(d) General guidelines for the non-Federal share are contained in Department of Commerce Regulations at 15 CFR part 24 and OMB Circular A-110. Copies of Circular A-110 can be obtained from the Sanctuaries and Reserves Division; 1825 Connecticut Avenue, NW., suite 714; Washington, DC 20235. The following may be used in satisfying the matching requirement:

(1) *Site selection and post site selection awards.* Cash and in-kind contributions (value of goods and services directly benefiting and specifically identifiable to this part of the project) are allowable. Land may not be used as match.

(2) *Acquisition and development awards.* Cash and in-kind contributions are allowable. In general, the fair market value of lands to be included within the Reserve boundaries and acquired pursuant to the Act, with other than Federal funds, may be used as match. However, the fair market value of real property allowable as match is limited to the fair market value of a real property interest equivalent to, or required to attain, the level of control over such land(s) identified by the state and approved by the Federal Government as that necessary for the protection and management of the National Estuarine Research Reserve. Appraisals must be performed according to Federal appraisal standards as detailed in Department of Commerce regulations at 15 CFR part 24 and the Uniform Relocation Assistance and Real Property Acquisition for Federal land Federally assisted programs in 15 CFR part 11. The fair market value of privately donated land, at the time of donation, as established by an independent appraiser and certified by a responsible official of the state, pursuant to 15 CFR part 11, may also be used as match. Land, including submerged lands already in the state's possession, may be used as match to establish a National Estuarine Research Reserve. The value of match for these state lands will be calculated by determining the value of the benefits foregone by the state, in the use of the land, as a result of new restrictions that may be imposed by Reserve designation. The appraisal of the benefits foregone must be made by an independent appraiser in accordance with Federal appraisal standards pursuant to 15 CFR part 24 and 15 CFR part 11. A state may initially use as match land valued at greater than the Federal share of the acquisition and development award. The value in excess of the amount required as match for the initial award may be used to match subsequent supplemental acquisition and development awards for the National Estuarine Research Reserve (see also §921.20). Costs related to land acquisition, such as appraisals, legal fees and surveys, may also be used as match.

(3) *Operation and management awards.* Generally, cash and in-kind contributions (directly benefiting and specifically identifiable to operations and management), except land, are allowable.

(4) *Research, monitoring, education and interpretive awards.* Cash and in-kind contributions (directly benefiting and specifically identifiable to the scope of work), except land, are allowable.

§921.82 Amendments to financial assistance awards.

Actions requiring an amendment to the financial assistance award, such as a request for additional Federal funds, revisions of the approved project budget or original scope of work, or extension of the performance period must be submitted to NOAA on Standard Form 424 and approved in writing.

APPENDIX I TO PART 921—BIOGEOGRAPHIC CLASSIFICATION SCHEME

Acadian

1. Northern of Maine (Eastport to the Sheepscot River.)
2. Southern Gulf of Maine (Sheepscot River to Cape Cod.)

Virginian

3. Southern New England (Cape Cod to Sandy Hook.)
4. Middle Atlantic (Sandy Hook to Cape Hatteras.)
5. Chesapeake Bay.

Carolinian

6. North Carolinas (Cape Hatteras to Santee River.)
7. South Atlantic (Santee River to St. John's River.)
8. East Florida (St. John's River to Cape Canaveral.)

West Indian

9. Caribbean (Cape Canaveral to Ft. Jefferson and south.)
10. West Florida (Ft. Jefferson to Cedar Key.)

Louisianian

11. Panhandle Coast (Cedar Key to Mobile Bay.)
12. Mississippi Delta (Mobile Bay to Galveston.)
13. Western Gulf (Galveston to Mexican border.)

Californian

14. Southern California (Mexican border to Point Conception.)
15. Central California (Point Conception to Cape Mendocino.)
16. San Francisco Bay.

Columbian

17. Middle Pacific (Cape Mendocino to the Columbia River.)
18. Washington Coast (Columbia River to Vancouver Island.)
19. Puget Sound.

Great Lakes

20. Lake Superior (including St. Mary's River.)
21. Lakes Michigan and Huron (including Straits of Mackinac, St. Clair River, and Lake St. Clair.)
22. Lake Erie (including Detroit River and Niagara Falls.)
23. Lake Ontario (including St. Lawrence River.)

Fjord

24. Southern Alaska (Prince of Wales Island to Cook Inlet.)
25. Aleutian Island (Cook Inlet Bristol Bay.)

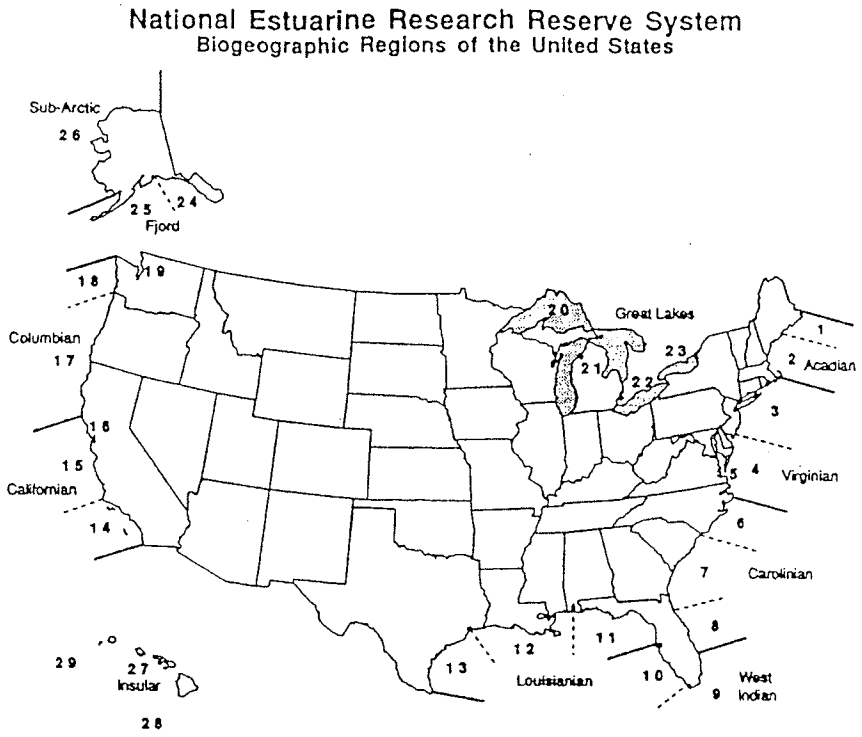
Sub-Arctic

26. Northern Alaska (Bristol Bay to Damarcation Point.)

Insular

27. Hawaiian Islands.
28. Western Pacific Island.
29. Eastern Pacific Island.

FIGURE 1



APPENDIX II TO PART 921— TYPOLOGY OF NATIONAL ESTUARINE RESEARCH RESERVES

This typology system reflects significant differences in estuarine characteristics that are not necessarily related to regional location. The purpose of this type of classification is to maximize ecosystem variety in the selection of national estuarine reserves. Priority will be given to important ecosystem types as yet unrepresented in the reserve system. It should be noted that any one site may represent several ecosystem types or physical characteristics.

Class I—Ecosystem Types

Group I—Shorelands

A. Maritime Forest-Woodland. That have developed under the influence of salt spray. It can be found on coastal uplands or recent features such as barrier islands and beaches, and may be divided into the following biomes:

1. Northern coniferous forest biome: This is an area of predominantly evergreens such as the sitka spruce (Picea), grand fir (Abies), and white cedar (Thuja), with poor development of the shrub and herb leyera, but high annual productivity and pronounced seasonal periodicity.

2. Moist temperate (Mesothermal) coniferous forest biome: Found along the west coast of North America from California to Alaska, this area is dominated by conifers, has relatively small seasonal range, high humidity with rainfall ranging from 30 to 150 inches, and a well-developed understory of vegetation with an abundance of mosses and other moisture-tolerant plants.

3. Temperate deciduous forest biome: This biome is characterized by abundant, evenly distributed rainfall, moderate temperatures which exhibit a distinct seasonal pattern.

well-developed soil biota and herb and shrub layers, and numerous plants which produce pulpy fruits and nuts. A distinct subdivision of this biome is the pine edible forest of the southeastern coastal plain, in which only a small portion of the area is occupied by climax vegetation, although it has large areas covered by edaphic climax pines.

4. Broad-leaved evergreen subtropical forest biome: The main characteristic of this biome is high moisture with less pronounced differences between winter and summer. Examples are the hammocks of Florida and the live oak forests of the Gulf and South Atlantic coasts. Floral dominants include pines, magnolias, bays, hollies, wild tamarine, strangler fig, gumbo limbo, and palms.

B. Coast shrublands. This is a transitional area between the coastal grasslands and woodlands and is characterized by woody species with multiple stems and a few centimeters to several meters above the ground developing under the influence of salt spray and occasional sand burial. This includes thickets, scrub, scrub savanna, heathlands, and coastal chaparral. There is a great variety of shrubland vegetation exhibiting regional specificity:

1. Northern areas: Characterized by Hudsonia, various erinaceous species, and thickets of Myricu, prunus, and Rosa.
2. Southeast areas: Floral dominants include Myrica, Baccharis, and Iles.
3. Western areas: Adenostoma, arcotyphylos, and eucalyptus are the dominant floral species.

C. Coastal grasslands. This area, which possesses sand dunes and coastal flats, has low rainfall (10 to 30 inches per year) and large amounts of humus in the soil. Ecological succession is slow, resulting in the presence of a number of seral stages of community development. Dominant vegetation includes mid-grasses (5 to 8 feet tall), such as Spartina, and trees such as willow (Salix sp.), cherry (Prunus sp.), and cottonwood (Pupulus deltoides.) This area is divided into four regions with the following typical strand vegetation:

1. Arctic/Boreal: Elymus;
2. Northeast/West: Ammophla;
3. Southeast Gulf: Uniola; and
4. Mid-Atlantic/Gulf: Spartina patens.

D. Coastal tundra. This ecosystem, which is found along the Arctic and Boreal coasts of North America, is characterized by low temperatures, a short growing season, and some permafrost, producing a low, treeless mat community made up of mosses, lichens, heath, shrubs, grasses, sedges, rushes, and herbaceous and dwarf woody plants. Common species include arctic/alpine plants such as Empetrum nigrum and Betula nana, the lichens Cetraria and Cladonia, and herbaceous plants such as Potentilla tridentata and Rubus chamaemorus. Common species on the coastal beach ridges of the high arctic desert include Bryas intergrifolia and Saxifrage oppositifolia. This area can be divided into two main subdivisions:

1. Low tundra: Characterized by a thick, spongy mat of living and undecayed vegetation, often with water and dotted with ponds when not frozen; and
2. High Tundra: A bare area except for a scanty growth of lichens and grasses, with underlaying ice wedges forming raised polygonal areas.

E. Coastal cliffs. This ecosystem is an important nesting site for many sea and shore birds. It consists of communities of herbaceous, graminoid, or low woody plants (shrubs, heath, etc.) on the top or along rocky faces exposed to salt spray. There is a diversity of plant species including mosses, lichens, liverworts, and "higher" plant representatives.

GROUP II--TRANSITION AREAS

A. Coastal marshes. These are wetland areas dominated by grasses (Poacea), sedges (Cyperaceae), rushes (Juncaceae), cattails (Typhaceae), and other graminoid species and is subject to periodic flooding by either salt or freshwater. This ecosystem may be subdivided into: (a) Tidal, which is periodically flooded by either salt or brackish water; (b) nontidal (freshwater); or (c) tidal freshwater. These are essential habitats for many important estuarine species of fish and invertebrates as well as shorebirds and waterfowl and serve important roles in shore stabilization, flood control, water purification, and nutrient transport and storage.

B. Coastal swamps. These are wet lowland areas that support mosses and shrubs together with large trees such as cypress or gum.

C. Coastal mangroves. This ecosystem experiences regular flooding on either a daily, monthly, or seasonal basis, has low wave action, and is dominated by a variety of salt-tolerant trees, such as the red mangrove (Rhizophora mangle), black mangrove (Avicennia Nitida), and the white mangrove (Laguncularia racemosa.) It is also an important habitat for large populations of fish, invertebrates, and birds. This type of ecosystem can be found from central Florida to extreme south Texas to the islands of the Western Pacific.

D. Intertidal beaches. This ecosystem has a distinct biota of microscopic animals, bacteria, and unicellular algae along with macroscopic crustaceans, mollusks, and worms with a detritus-based nutrient cycle. This area also includes the driftline communities found at high tide levels on the beach. The dominant organisms in this ecosystem include crustaceans such as the mole crab (Emerita), amphipods (Gammeridae), ghost crabs (Ocypode), and bivalve mollusks such

as the coquina (Donax) and surf clams (Spisula and Mactra.)

E. Intertidal mud and sand flats. These areas are composed of unconsolidated, high organic content sediments that function as a short-term storage area for nutrients and organic carbons. Macrophytes are nearly absent in this ecosystem, although it may be heavily colonized by benthic diatoms, dinoflaggellates, filamintous blue-green and green algae, and chaemosynthetic purple sulfur bacteria. This system may support a considerable population of gastropods, bivalves, and polychaetes, and may serve as a feeding area for a variety of fish and wading birds. In sand, the dominant fauna include the wedge shell Donax, the scallop Pecten, tellin shells Tellina, the heart urchin Echinocardium, the lug worm Arenicola, sand dollar Dendraster, and the sea pansy Renilla. In mud, faunal dominants adapted to low oxygen levels include the terebellid Amphitrite, the boring clam Playdon, the deep sea scallop Placopecten, the Quahog Mercenaria, the echiurid worm Urechis, the mud snail Nassarius, and the sea cucumber Thyone.

F. Intertidal algal beds. These are hard substrates along the marine edge that are dominated by macroscopic algae, usually thalloid, but also filamentous or unicellular in growth form. This also includes the rocky coast tidepools that fall within the intertidal zone. Dominant fauna of these areas are barnacles, mussels, periwinkles, anemones, and chitons. Three regions are apparent:

1. Northern latitude rocky shores: It is in this region that the community structure is best developed. The dominant algal species include Chondrus at the low tide level, Fucus and Ascophylium at the mid-tidal level, and Laminaria and other kelplike algae just beyond the intertidal, although they can be exposed at extremely low tides or found in very deep tidepools.

2. Southern latitudes: The communities in this region are reduced in comparison to those of the northern latitudes and possesses algae consisting mostly of single-celled or filamentour green, blue-green, and red algae, and small thalloid brown algae.

3. Tropical and subtropical latitudes: The intertidal in this region is very reduced and contains numerous calcareous algae such as Porolithon and Lithothamnion, as well and green algae with calcareous particles such as Halimeda, and numerous other green, red, and brown algae.

GROUP III—SUBMERGED BOTTOMS

A. Subtidal hardbottoms. This system is characterized by a consolidated layer of solid rock or large pieces of rock (neither of biotic origin) and is found in association with geomorphological features such as submarine canyons and fjords and is usually covered with assemblages of sponges, sea fans, bivalves, hard corals, tunicates, and other attached organisms. A significant feature of estuaries in many parts of the world is the oyster reef, a type of subtidal hardbottom. Composed of assemblages of organisms (usually bivalves), it is usually found near an estuary's mouth in a zone of moderate wave action, salt content, and turbidity. If light levels are sufficient, a covering of microscopic and attached macroscopic algae, such as keep, may also be found.

B. Subtidal softbottoms. Major characteristics of this ecosystem are an unconsolidated layer of fine particles of silt, sand, clay, and gravel, high hydrogen sulfide levels, and anaerobic conditions often existing below the surface. Macrophytes are either sparse or absent, although a layer of benthic microalgae may be present if light levels are sufficient. The faunal community is dominated by a diverse population of deposit feeders including polychaetes, bivalves, and burrowing crustaceans.

C. Subtidal plants. This system is found in relatively shallow water (less than 8 to 10 meters) below mean low tide. It is an area of extremely high primary production that provides food and refuge for a diversity of faunal groups, especially juvenile and adult fish, and in some regions, manatees and sea turtles. Along the North Atlantic and Pacific coasts, the seagrass Zostera marina predominates. In the South Atlantic and Gulf coast areas, Thalassia and Diplanthera predominate. The grasses in both areas support a number of epiphytic organisms.

Class II—Physical Characteristics

GROUP I—GEOLOGIC

A. Basin type. Coastal water basins occur in a variety of shapes, sizes, depths, and appearances. The eight basic types discussed below will cover most of the cases:

1. Exposed coast: Solid rock formations or heavy sand deposits characterize exposed ocean shore fronts, which are subject to the full force of ocean storms. The sand beaches are very resilient, although the dunes lying just behind the beaches are fragile and easily damaged. The dunes serve as a sand storage area making them chief stabilizers of the ocean shorefront.

2. Sheltered coast: Sand or coral barriers, built up by natural forces, provide sheltered areas inside a bar or reef where the ecosystem takes on many characteristics of confined waters-abundant marine grasses, shellfish, and juvenile fish. Water movement is reduced, with the consequent effects pollution being more severe in this area than in exposed coastal areas.

3. Bay: Bays are larger confined bodies of water that are open to the sea and receive strong tidal flow. When stratification is pronounced the flushing action is augmented by river discharge. Bays vary in size and in type of shorefront.

4. Embayment: A confined coastal water body with narrow, restricted inlets and with a significant freshwater inflow can be classified as an embayment. These areas have more restricted inlets than bays, are usually smaller and shallower, have low tidal action, and are subject to sedimentation.

5. Tidal river: The lower reach of a coastal river is referred to as a tidal river. The coastal water segment extends from the sea or estuary into which the river discharges to a point as far upstream as there is significant salt content in the water, forming a salt front. A combination of tidal action and freshwater outflow makes tidal rivers well-flushed. The tidal river basin may be a simple channel or a complex of tributaries, small associated embayments, marshfronts, tidal flats, and a variety of others.

6. Lagoon: Lagoons are confined coastal bodies of water with restricted inlets to the sea and without significant freshwater inflow. Water circulation is limited, resulting in a poorly flushed, relatively stagnant body of water. Sedimentation is rapid with a great potential for basin shoaling. Shores are often gently sloping and marshy.

7. Perched coastal wetlands: Unique to Pacific islands, this wetland type found above sea level in volcanic crater remnants forms as a result of poor drainage characteristics of the crater rather than from sedimentation. Floral assemblages exhibit distinct zonation while the faunal constituents may include freshwater, brackish, and/or marine species. EXAMPLE: Aunu's Island, American Samoa.

8. Anchialine systems: These small coastal exposures of brackish water form in lava depressions or elevated fossil reefs have only a subsurface connection in the ocean, but show tidal fluctuations. Differing from true estuaries in having no surface continuity with streams or ocean, this system is characterized by a distinct biotic community dominated by benthis algae such as Rhizoclonium, the mineral encrusting Schiuzothrix, and the vascular plant Ruppia maritima. Characteristic fauna which exhibit a high degree of endemicity, include the mollusks Theosoxus neglectus and Tcariosus. Although found throughout the world, the high islands of the Pacific are the only areas within the U.S. where this system can be found.

B. Basin structure. Estuary basins may result from the drowning of a river valley (coastal plains estuary), the drowning of a glacial valley (fjord), the occurrence of an offshore barrier (bar-bounded estuary), some tectonic process (tectonic estuary), or volcanic activity (volcanic estuary).

1. Coastal plains estuary: Where a drowned valley consists mainly of a single channel, the form of the basin is fairly regular forming a simple coastal plains estuary. When a channel is flooded with numerous tributaries an irregular estuary results. Many estuaries of the eastern United States are of this type.

2. Fjord: Estuaries that form in elongated steep headlands that alternate with deep U-shaped valleys resulting from glacial scouring are called fjords. They generally possess rocky floors or very thin veneers of sediment, with deposition generally being restricted to the head where the main river enters. Compared to total fjord volume river discharge is small. But many fjords have restricted tidal ranges at their mouths due to sills, or upreaching sections of the bottom which limit free movement of water, often making river flow large with respect to the tidal prism. The deepest portions are in the upstream reaches, where maximum depths can range from 800m to 1200m while sill depths usually range from 40m to 150m.

3. Bar-bounded estuary: These result from the development of an offshore barrier such as a beach strand, a line of barrier islands, reef formations a line of moraine debris, or the subsiding remnants of a deltaic lobe. The basin is often partially exposed at low tide and is enclosed by a chain of offshore bars of barrier islands broken at intervals by inlets. These bars may be either deposited offshore or may be coastal dunes that have become isolated by recent seal level rises.

4. Tectonic estuary: These are coastal indentures that have formed through tectonic processes such as slippage along a fault line (San Francisco Bay), folding or movement of the earth's bedrock often with a large inflow of freshwater.

5. Volcanic estuary: These coastal bodies of open water, a result of volcanic processes are depressions or craters that have direct and/or subsurface connections with the ocean and may or may not have surface continuity with streams. These formations are unique to island areas of volcanic orgin.

C. Inlet type. Inlets in various forms are an integral part of the estuarine environment as they regulate to a certain extent, the velocity and magnitude of tidal exchange, the degree of mixing, and volume of discharge to the sea.

1. Unrestricted: An estuary with a wide unrestricted inlet typically has slow currents, no significant turbulence, and receives the full effect of ocean waves and local disturbances which serve to modify the shoreline. These estuaries are partially mixed, as the open mouth permits the incursion of marine waters to considerable distances upstream, depending on the tidal amplitude and stream gradient.

2. Restricted: Restrictions of estuaries can exist in many forms: Bars, barrier islands, spits, sills, and more. Restricted inlets result in decreased circulation, more pronounced longitudinal and vertical salinity gradients, and more rapid sedimentation. However, if

the estuary mouth is restricted by depositional features or land closures, the incoming tide may be held back until it suddenly breaks forth into the basin as a tidal wave, or bore. Such currents exert profound effects on the nature of the subtrate, turbidity, and biota of the estuary.

3. Permanent: Permanent inlets are usually opposite the mouths of major rivers and permit river water to flow into the sea.

4. Temporary (Intermittent): Temporary inlets are formed by storms and frequently shift position, depending on tidal flow, the depth of the sea, and sound waters, the frequency of storms, and the amount of littoral transport.

D. Bottom composition. The bottom composition of estuaries attests to the vigorous, rapid, and complex sedimentation processes characteristic of most coastal regions with low relief. Sediments are derived through the hydrologic processes of erosion, transport, and deposition carried on by the sea and the stream.

1. Sand: Near estuary mouths, where the predominating forces of the sea build spits or other depositional features, the shore and substrates of the estuary are sandy. The bottom sediments in this area are usually coarse, with a graduation toward finer particles in the head region and other zones of reduced flow, fine silty sands are deposited. Sand deposition occurs only in wider or deeper regions where velocity is reduced.

2. Mud: At the base level of a stream near its mouth, the bottom is typically composed of loose muds, silts, and organic detritus as a result of erosion and transport from the upper stream reaches and organic decomposition. Just inside the estuary entrance, the bottom contains considerable quantities of sand and mud, which support a rich fauna. Mud flats, commonly built up in estuarine basins, are composed of loose, coarse, and fine mud and sand, often dividing the original channel.

3. Rock: Rocks usually occur in areas where the stream runs rapidly over a steep gradient with its coarse materials being derived from the higher elevations where the stream slope is greater. The larger fragments are usually found in shallow areas near the stream mouth.

4. Oyster shell: Throughout a major portion of the world, the oyster reef is one of the most significant features of estuaries, usually being found near the mouth of the estuary in a zone of moderate wave action, salt content, and turbidity. It is often a major factor in modifying estuarine current systems and sedimentation, and may occur as an elongated island or peninsula oriented across the main current, or may develop parallel to the direction of the current.

GROUP II—HYDROGRAPHIC

A. Circulation. Circulation patterns are the result of combined influences of freshwater inflow, tidal action, wind and oceanic forces, and serve many functions: Nutrient transport, plankton dispersal, ecosystem flushing, salinity control, water mixing, and more.

1. Stratified: This is typical of estuaries with a strong freshwater influx and is commonly found in bays formed from "drowned" river valleys, fjords, and other deep basins. There is a net movement of freshwater outward at the top layer and saltwater at the bottom layer, resulting in a net outward transport of surface organisms and net inward transport of bottom organisms.

2. Non-stratified: Estuaries of this type are found where water movement is sluggish and flushing rate is low, although there may be sufficient circulation to provide the basis for a high carrying capacity. This is common to shallow embayments and bays lacking a good supply of freshwater from land drainage.

3. Lagoonal: An estuary of this type is characterized by low rates of water movement resulting from a lack of significant freshwater influx and a lack of strong tidal exchange because of the typically narrow inlet connecting the lagoon to the sea. Circulation whose major driving force is wind, is the major limiting factor in biological productivity within lagoons.

B. Tides. This is the most important ecological factor in an estuary as it affects water exchange and its vertical range determines the extent of tidal flats which may be exposed and submerged with each tidal cycle. Tidal action against the volume of river water discharged into an estuary results in a complex system whose properties vary according to estuary structure as well as the magnitude of river flow and tidal range. Tides are usually described in terms of the cycle and their relative heights. In the United States, tide height is reckoned on the basis of average low tide, which is referred to as datum. The tides, although complex, fall into three main categories:

1. Diurnal: This refers to a daily change in water level that can be observed along the shoreline. There is one high tide and one low tide per day.

2. Semidiurnal: This refers to a twice daily rise and fall in water that can be observed along the shoreline.

3. Wind/Storm tides: This refers to fluctuations in water elevation to wind and storm events, where influence of lunar tides is less.

C. Freshwater. According to nearly all the definitions advanced, it is inherent that all estuaries need freshwater, which is drained from the land and measurably dilutes seawater to create a brackish condition. Freshwater enters an estuary as runoff from the

land either from a surface and/or subsurface source.

1. Surface water: This is water flowing over the ground in the form of streams. Local variation in runoff is dependent upon the nature of the soil (porosity and solubility), degree of surface slope, vegetational type and development, local climatic conditions, and volume and intensity of precipitation.

2. Subsurface water: This refers to the precipitation that has been absorbed by the soil and stored below the surface. The distribution of subsurface water depends on local climate, topography, and the porosity and permeability of the underlying soils and rocks. There are two main subtypes of surface water:

a. Vadose water: This is water in the soil above the water table. Its volume with respect to the soil is subject to considerable fluctuation.

b. Groundwater: This is water contained in the rocks below the water table, is usually of more uniform volume than vadose water, and generally follows the topographic relief of the land being high hills and sloping into valleys.

GROUP III—CHEMICAL

A. Salinity. This reflects a complex mixture of salts, the most abundant being sodium chloride, and is a very critical factor in the distribution and maintenance of many estuarine organisms. Based on salinity, there are two basic estuarine types and eight different salinity zones (expressed in parts per thousand-ppt.)

1. Positive estuary: This is an estuary in which the freshwater influx is sufficient to maintain mixing, resulting in a pattern of increasing salinity toward the estuary mouth. It is characterized by low oxygen concentration in the deeper waters and considerable organic content in bottom sediments.

2. Negative estuary: This is found in particularly arid regions, where estuary evaporation may exceed freshwater inflow, resulting in increased salinity in the upper part of the basin, especially if the estuary mouth is restricted so that tidal flow is inhibited. These are typically very salty (hyperhaline), moderately oxygenated at depth, and possess bottom sediments that are poor in organic content.

3. Salinity zones (expressed in ppt):

a. Hyperhaline—greater than 40 ppt.

b. Euhaline—40 ppt to 30 ppt.

c. Mixhaline—30 ppt to 0.5 ppt.

(1) Mixoeuhaline—greater than 30 ppt but less than the adjacent euhaline sea.

(2) Polyhaline—30 ppt to 18 ppt.

(3) Mesohaline—18 ppt to 5 ppt.

(4) Oligohaline—5 ppt to 0.5 ppt.

d. Limnetic: Less than 0.5 ppt.

B. pH Regime: This is indicative of the mineral richness of estuarine waters and falls into three main categories:

1. Acid: Waters with a pH of less than 5.5.

2. Circumneutral: A condition where the pH ranges from 5.5 to 7.4.

3. Alkaline: Waters with a pH greater than 7.4.

PART 922—NATIONAL MARINE SANCTUARY PROGRAM REGULATIONS

Subpart A—General

Sec.

Subpart B—Site Evaluation List (SEL)

Subpart C—Designation of National Marine Sanctuaries

Subpart D—Management Plan Development and Implementation

Subpart E—Regulations of General Applicability

APPENDIX E: STAKEHOLDER INTERVIEWS QUESTIONNAIRE

SSNERR Cooperative Plan for Watershed Conservation
Stakeholder Survey Questionnaire
October 26, 1998

Set up interview appointment. At the time the appointment is established, describe the project and how long the interview will take.

Interviewee:_____ Interviewer:_____

The South Slough National Estuarine Research Reserve is undertaking a property acquisition planning process aimed at fulfilling the wishes of the late Chalmer Gustafson, a former local resident who willed $1.6 million dollars to the Reserve "solely for the acquisition of lands to be added to the Reserve." The acquisition planning process will assess the types of lands that would improve the Reserve's ability to fulfill its research and educational goals, and identify specific opportunities for adding appropriate lands to the Reserve

You have been identified as a key stakeholder in this process and we would like to solicit your views on a number of issues associated with the project. We have developed a questionnaire and would like to set up and appointment to go over the questions with you. The questionnaire takes from 30-40 minutes.

1. How familiar are you with what they do at the South Slough National Estuarine Research Reserve? Can you tell me about your association with the Reserve?
2. In your view, how does the Reserve fit into the larger community? What role does it play in the community? In the economy?
3. How familiar are you with the landscape and various habitats of the Reserve? What about the larger watershed?
4. Are there areas of the South Slough Watershed that you would consider special or particularly important in some way? Please explain.
5. What about the Coos Bay Watershed - are there areas in the Coos Bay watershed that you would consider special or particularly important in some way? Please explain.
6. What things do you think would be important to consider when choosing lands or resource stewardship responsibilities to add to the Reserve?
7. From question 5 above please define these areas on a map.

8. Can you think of any areas with special importance which can be found in the Coos Bay Watershed but not in the South Slough Watershed?
9. Please define these areas and other areas of special importance to you on a map.
10. Do you know of any areas you consider to be special or important (which you may or may not have already identified), which are likely to be or are currently in the process of being impacted or changed from their natural state due to external factors such as invasive plant or animal species, development plans or other factors? Identify these areas on map.
11. Do you know of any areas which are available or may soon be available for sale or available for conservation management/protection? Please identify these areas on the map.
12. Would it be appropriate to contact any parties from the sites identified above, and if yes can we say you recommended we call? Do you have contact names and phone numbers for these parties?

APPENDIX F: STAKEHOLDER INTERVIEW SUMMARY

SSNERR
CONSERVATION PLAN INTERVIEW SUMMARY
November 12, 1998

Twenty people were interviewed. All twenty were surveyed regarding the following questions. Their responses are summarized.

Question: How familiar are you with the South Slough National Estuarine Research Reserve? Can you tell me about your association with the Reserve?

Most people were very familiar with the Reserve. Several individuals have served on either the Management Commission, the Technical Advisory Team, or worked in some other capacity on or for the Reserve.

Question: In your view, how does the Reserve fit into the larger community? What role does it play in the community? In the economy?

There were mixed views on the question of how the Reserve fits into the larger community. Many said the Reserve is a major asset, both in terms of environmental recreation and education, and that the stewardship activities associated with the Reserve protects the ecological diversity of the area. On the other hand, several said that the Reserve does not begin to reach it's potential as a community and tourist draw and it's presence is not well known by the greater North Bend/Coos Bay community. A few mentioned that the land use restrictions associated with the Reserve are perceived as negative by some in the community.

Of the 20 people interviewed:

- 8 mentioned the educational role of the Reserve;
- 6 referred to the Reserve as an economic asset to the community, while two said the Reserve plays no significant role in the local economy;
- 8 mentioned the environmental stewardship role of the Reserve;
- 3 indicated that the stewardship role has lead to limitations on various land uses;
- 3 mentioned the research role of the Reserve; and,
- 3 referred to the Reserve as a major community recreational amenity.

Question: What areas within the South Slough Watershed would you consider to be special or important in some way?

Most interviewees felt the immediate surrounding area to be the most important. Undeveloped shoreline, including all of the intertidal and "fringing" habitats, tidal wetlands, and streams were some of the specific habitats mentioned. Other specific areas mentioned were:

- Eagle and osprey nest sites
- Coastal grasslands
- Areas that were historically fire maintained
- Older forest habitat along the estuary

Question: What areas within the Coos Bay Watershed would you consider to be special or important in some way?

The areas mentioned included:

- undeveloped areas and areas with restoration potential
- areas with high ecological diversity
- recovering and restorable upland habitats
- areas of T&E species (especially cordylanthus habitat areas and snowy plover)
- sand dunes and dunal lakes
- large mudflats
- off-shore reefs
- freshwater wetlands
- historically fire-maintained prairies
- floodplains of major rivers where there is opportunity for restoration
- headland from Cape Arago North

Question: What things do you think are important to consider when choosing lands or resource stewardship responsibility to add to the Reserve?

Five concepts emerged from this question.

- Base selection on research needs exclusively
- Focus only on lands immediately adjacent to the existing boundary; try to capture as much of the SS watershed as possible
- Seek to add to the diversity of existing habitats
- Seek to add lands with recreation potential
- Seek to avoid areas that would result in negative economic impact to the community

Nine of the participants were surveyed regarding the following questions.

Question: Can you think of any areas with special importance that can be found in the Coos Bay Watershed but not in the South Slough Watershed?

The areas mentioned included:

- sandy beach habitats
- coastal grassland habitats
- coastal cliffs
- coastal shrublands
- subtidal hardbottoms
- Catching Slough bottomlands
- large mudflats
- offshore reefs
- dunal lakes
- freshwater wetlands
- old growth forest habitat

Question: Do you know of any places undergoing or likely to be impacted by external factors?

- Henderson Marsh was the most often mentioned response (3), with potential impacts from a steel mill, development, and/or cattle grazing. The North Spit was mentioned twice with industrial development called out as the external force with potential impact. Other specific areas mentioned included:
- East bay area developments
- Industrial cranberry operations
- View from Cape Arago of forested land
- Charleston area developments
- Libby Road land clearing and lot development,
- Potential for destination resort on Crown Point

Question: Do you know of any areas that are available or may soon be available for sale or conservation management/protection?

Most participants responded "no" to this question. BLM land was mentioned twice and one person suggested the land Menasha recently logged adjacent to the Land Board/ODF in the upper watershed.

APPENDIX G: PRELIMINARY FOCUS AREA MAP NOTES

Key to Draft Map of South Slough National Estuary Research Reserve Cooperative Watershed Conservation Plan Potential Focus Areas

Site by Goal		Description	Note
Goal 1 (Blue)	1	Yonker Pt. Bald eagle nesting site and visual entryway into the reserve.	Heavily forested with no houses/farms. A natural extension of northern SSNERR boundary to Yonker Point. Forested shoreline with significant marsh/beach habitat. Protection of existing traditional uses.
	2	Access point - Crown Point Road.	Acquisition of access point to allow SSNERR to retain existing opportunity to provide/control access into the reserve at its northern boundary. SSNERR may consider improvement of the trail/stairway along with signage/overlook/parking in the future. (road access point)
	3	Indian Point/Indian Sands	Forested point and shoreline at confluence of South Slough/Joe Ney Sloughs is currently scheduled for multiple residential development. Acquisition will provide continuation of existing traditional uses as a natural area with high diversity of habitats (marsh, mudflat, eelgrass beds, sandy beach and cliffs, and important harbor seal haulout area). This parcel extends into tideflats to include submerged lands currently in private ownership in Brown's Cove. This parcel includes archeological sites.
	4	Theo. John/Wasson Creek watershed subbasin.	Extension of SSNERR SW boundary from Ridgetop/Seven Devils Rd. to encompass entire watershed subbasin from ridgetop to estuary. Acquisition would allow SSNERR to have complete administrative control over 2 adjacent subbasins (Theo. John/Wasson and Dalton).
	5-12	Talbot and Elliot watersheds	Extension of SSNERR boundary to ridgetop of the South Slough watershed to include major portions of the Elliot Cr. and Talbot/Wick Cr. watershed subbasins. Access Point issues associated with this parcel include motorcross riders (spread of POC root rot disease). Acquisition will provide watershed-to-estuary control for major portions of the subbasins.
	13	Deal Bottomlands	Acquisition to at least head-of-tide for Winchester Cr. Acquisition of working farm at southern boundary of Reserve incorporated into management of the SSNERR.
	14-20	*Cordylanthus maritimus* areas	
	21-27	Other South Slough sub-watersheds	
Goal 2 (Green)	1	High visibility point for viewing of shorebird/waterfowl populations	Could provide outstanding visitor access for Best Management Practices demonstration projects.
	2	Rocky shoreline with good visibility/fair access	
	3	Sandy Beach-high energy environment and nearshore dunes..	As a representative habitat, this mid-energy beach near the mouth of the bay is a significant area for educational activities including seining, waterfowl viewing and dune habitat.
	4	Shoreline with urban access but excellent natural values.	Problematic for port development but has significant shorebird and waterfowl use along waterways, tideflats, and fringing marshes.

Key to Draft Map of South Slough National Estuary Research Reserve Cooperative Watershed Conservation Plan Potential Focus Areas			
Site by Goal		Description	Note
	5	Critical view access and is half of the basin in which the Reserve has done restoration and interpretive work.	
	6	Reasonable location for water access to sloughs and lower bay.	
	7	Yonker Pt. Bald eagle nesting site and visual entryway into the reserve.	Heavily forested with no houses/farms. A natural extension of northern SSNERR boundary to Yonker Point. Forested shoreline with significant marsh/beach habitat. Protection of existing traditional uses.
	8	Theo. John/Wasson Creek watershed subbasin.	Extension of SSNERR SW boundary from Ridgetop/Seven Devils Rd. to encompass entire watershed subbasin from ridgetop to estuary. Acquisition would allow SSNERR to have complete administrative control over 2 adjacent subbasins (Theo. John/Wasson and Dalton).
	9	Indian Point/Indian Sands	Forested point and shoreline at confluence of South Slough/Joe Ney Sloughs is currently scheduled for multiple residential development. Acquisition will provide continuation of existing traditional uses as a natural area with high diversity of habitats (marsh, mudflat, eelgrass beds, sandy beach and cliffs, and important harbor seal haulout area). This parcel extends into tideflats to include submerged lands currently in private ownership in Brown's Cove. This parcel includes archeological sites.
	10	Barview Wayside	Access Point for vehicles/parking/picnic/interpretive signs (possible building site) along Cape Arago Highway. Barview Wayside salt marsh restoration site for long-term monitoring of restoration/enhancement activities. FW marsh, beaches, dune, eelgrass, shrimpbeds, and salt marsh habitats would be included in this strategic acquisition.
	11	Charleston Boat Basin	
	12	Deflation plain lakes	
	13	Large mudflat area	
	14-16	Offshore islands	
	17	"Mouth of Reserve"	
	18	Fossil Point Creek	
	19	BLM parcel	
Goal 3 (Red)	1	Hayward Creek Basin	This moderate scale subbasin has excellent recovering stream characteristics and is of sufficient size to permit manipulations to restore salmonid runs without destroying the existing runs. Forest stands are maturing in the 50+ year category and the streambed has good woody debris complexity. This would be a good buffer on the NW side of the Reserve.

Key to Draft Map of South Slough National Estuary Research Reserve Cooperative Watershed Conservation Plan Potential Focus Areas			
Site by Goal		Description	Note
	2	Potential area for more visible restoration and "demonstration farm concept."	
	3	Potential for marsh waste water treatment.	
	4	Deal Bottomlands	Acquisition to at least head-of-tide for Winchester Cr. Acquisition of working farm at southern boundary of Reserve incorporated into management of the SSNERR.

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APPENDIX H: DRAFT ACQUISITION QUESTION LIST

SSNERR Focus Area Ranking Criteria

draft

Step 1: Does Focus Area Meet Program Goals? (Project Phase 1)

Goal 1. Protect the integrity of existing investment

Objectives:

- provides increased control over intact watersheds
- provides for protection or conservation of important ecological functions (i.e. water quality, wildlife corridors, wetland hydrology, genetic resources and dispersal pathways, critical habitat for RTE species, etc.)

Goal 2. Provides diversity of habitat

Objectives:

- provides opportunities for upland research [specify upland types]
- provides opportunities for "green box" and "built" environment research, education and stewardship
- provides increased habitat diversity within SSNERR program to adequately represent biogeographic region habitat typology (ecological structure)
- provides for conservation of aesthetically important sites (views, sounds)

Goal 3. Address specific projects

Objectives:

- provides opportunities for demonstration of ecologically effective agricultural land uses
- provides opportunities for salmonid restoration research
- provides potential for development of ecotourism [discuss the concept and reality of "low impact"]

Step 2: Apply Management or Acquisition Criteria (Project Phase 2)

2A. Is Focus Area Public Land?

Apply management criteria:
Determine management strategies:

2B. Is Focus Area Private Land?

Apply acquisition criteria:
Determine acquisition and management strategies:

APPENDIX I: BIOGEOGRAPHIC REGION OPPORTUNITY MATRIX AND CONTACT NOTES

Appendix - Pacific Columbia Biogeographic Region Opportunities Matrix methods, comprehensive contact list, and additional natural area information.

Methods

We contacted local, state, and federal natural resource managers/specialists responsible for managing protected estuarine or near coastal natural areas and preserves in the pacific section of the Columbian biogeographic region (Cape Mendocino to the Columbia River). Protected estuarine or near coastal natural areas and preserves were defined as lands or substrates adjacent to the coast or an estuary (the inland extent defined by measurable salinity) in public (local, state, or federal) or non-profit ownership, and managed primarily for research, rare or endangered species conservation, or fish and wildlife habitat. In some cases we included areas that are also managed for limited use recreation. We also contacted a few special management areas, such as the Yurak Indian Reservation, that contain estuarine habitats managed primarily for resource values and that represent significant opportunties for developing research, stewardship, or educational partnerships.

We questioned resource managers/specialists about the location, acreage, management objectives, and habitat types within the protected areas they manage. We also asked about data/information availability, its format, and management plans or research projects completed or in progress. Finally we asked managers about cooperative restoration, management, or research projects involving estuarine or marine resources in their locality.

The extent of estuarine restoration, management and research as well as the availability of habitat information varied significantly within the Biogeographic region. Some areas with extensive public ownership, such as the Humboldt Bay, have major planning, assessment, monitoring, or research projects underway that involve numerous local, state, and federal partners. Other agencies, such as Oregon State Parks, manage several non-contiguous acreages with little or no baseline habitat information or management plan. Particularly in the case of state and county parks, we found that managers of near-coastal areas had less first-hand knowledge of the marine and estuarine habitats in comparison to the terrestrial habitats they manage.

The following agencies, organizations, names, and contact information represent a comprehensive list of people we contacted throughout the pacific section of the Columbia biogeographic region. We also document additional information (not included in the Matrix) regarding existing or ongoing monitoring, planning, and inventory efforts. *"Other contacts"* include additional contacts, state or regional managers, or researchers currently conducting investigations in the protected area. Contacts with a "*" denote organizations and associated individuals who would be most responsive to partnership opportunities.

California Contacts

California State Parks*: California State Parks North Coast and Redwood Districts include 10 state parks, beaches, and reserves containing estuarine and near coastal habitats. The primary contacts for research and stewardship in the North Coast District are Ken Andersen, North Coast Resource Ecologist, 707-445-6547, kande@parks.ca.gov, and Valerie Gizinski, Redwood State Parks Resource Ecologist, 707-464-6101 (x5380), valerie_gizinski@nps.gov. Both Ken and

Valerie are very knowledgeable of research and stewardship activities on North Coast State Parks. They can also provide liaison to public interpretation and education staff.

Other contacts: Kolb, John A - District Superintendent TEL (707) 445-6547FAX (707) 441-5737 ncrhq@parks.ca.gov c/o Fort Humboldt State Historic Park P.O. Box 2006, Eureka, CA 95502-2006

Humboldt Bay Harbor and Conservation District*: The Humboldt Bay Harbor and Conservation District (HBHCD) recently acquired an EPA grant to lead a cooperative multi-jurisdiction/stakeholder planning and coordination effort in Humboldt Bay. The project will culminate in a 20 year management plan to coordinate permitting processes, conservation and restoration efforts, and economic development (i.e. channel deepening) in the harbor and bay. A major product of the project will be an integrated GIS for Humboldt Bay.. Primary contact: David Hull, HBHCD CEO, 707-443-0801.

Other contacts:. Greg Goldsmith, 707-822-7201, greg_goldsmith@fws.gov, GIS Analyst with the Humboldt Bay NWR is coordinating production of the integrated GIS for the project.

California Department of Fish and Game*: California Department of Fish and Game manages several wildlife area and one ecological reserve north Cape Mendocino. For general information on CDFG habitat conservation program and these management designations see http://www.dfg.ca.gov/habitats/habitat.html. The Table Bluff Ecological Reserve near South Humboldt Bay is managed by Steve Harrison, 601 Locus St. Redding, CA 96001, 530-225-2317,. Herb Pierce, 707-441-5790, and Bill Holtz, 707-464-2523, manage Wildlife Areas around Humboldt Bay and Lake Earl. CDFG is is currently implementing numerous restoration and enhancement projects increasingly funded by outside sources. Herb Pierce and Karen Kovac, 707-441-5789, are involved in the Humboldt Bay planning effort led by the Humboldt Bay Harbor and Conservation District (see above).

Other Contacts: Don Koch, 530-225-2363, is the North coast manager for CDFG. Tom Stone, 530-225-2308, works on estuary issues. Terry Weist, 530-459-1129, has helped with mapping and GIS inventories. Mike Wallace, 707-822-3702, a CDFG fisheries biologist is conducting research on the Klamath River Estuary with the Yurak Tribe. Ron Warner, 707-441-5754, is with the Marine Division of CDFG in Eureka, CA. Frank Henry, 650-688-6359, is the Bays and Estuaries Ecosystem Coordinator with the Habitat Division.

BLM Arcata Field Office, (http://www.ca.blm.gov/arcata/)**:** The Arcata Field Office of the BLM is responsible for managing 400 acres coastal grassland and intertidal beach areas around Humboldt Bay including the 100 acre Manila Dunes Recreation Area managed primarily for rare plant conservation. The BLM is also currently negotiating the acquisition of 600 additional acres of the south spit of the Humboldt Bay. Portions of the area will be managed as a Research Natural Area containing. Contact Field Manager Lynda Roush, 707-825-2300, for information.

Arcata Community Forest: Arcata's city forest comprises approximately 1150 acres in two parcels obtained in several purchases over a 50 year period. The reserve is adjacent to Humboldt

Bay, the mouth of Jolly Giant Creek, and other coastal wetlands. The Department of Environmental Services conducts monitoring for water quality, wildlife, forest stand dynamics, and plant communities and has maintained a GIS for the preserve since 1988. Contact Mark Andre, Department of Environmental Services, 736 F. St., Arcata, CA 95521, Mark Andre, 707-822-8184.

Arcata Marsh and Wildlife Sanctuary (http://www.humboldt.edu/~ere_dept/marsh/): The City of Arcata manages a constructed and natural wetland area for wildlife habitat, water treatment, and recreation. The 229 acres includes freshwater and salt water marshes, the mouth of Jolly Giant Creek on Humboldt Bay, sand and mud flats with eel grass and shorebird habitats, and some upland areas of coastal grassland adjacent to the Humboldt Bay NWR and CDFG Wildlife Areas. The Arcata Marsh and Wildlife Sanctuary is involved in the Humboldt Bay planning effort led by the Humboldt Bay Harbor and Conservation District (see above). Contact refuge ecologist, Julie Neander, 707-825-2151, and Interpretative Manager, Denice Homer, 707-826-2359, at Arcata Marsh and Wildlife Sanctuary Interpretive Center South G Street, Arcata or P.O. Box 410, Arcata, CA 95518.

Humboldt Bay National Wildlife Refuge* http://www.redwood-country.com/refuge/: In 1971, the U.S. Fish and Wildlife Service, recognizing the importance of Humboldt Bay for migratory birds, purchased a few acres for a new refuge. Humboldt Bay National Wildlife Refuge (NWR) was established to preserve and restore precious bayshore wildlife habitat for the variety of migratory waterbirds, especially black brant, that depend upon Humboldt Bay in the fall, winter, and spring.

In 1988, a 1,081-acre parcel along Salmon Creek was acquired. Currently, the NWR includes 2,200 acres of seasonal wetlands, salt marshes, grasslands, open bay, and mudflats as well as the 475 acre Lanphere Dunes Preserve, 707-822- 6378, formerly owned by the Nature Conservancy. Ultimately, the NWR plans to acquire and manage 8,935 acres within and around Humboldt Bay.

The U.S. Fish and Wildlife Service, together with local community volunteers, is working to achieve the following six refuge management goals: 1.) Preserve Endangered and Threatened Species, 2.) Increase use of Humboldt Bay for Pacific Black Brant, 3.) Restore habitat diversity for watersheds, 4.) Maintain a tideland ecosystem. 5.)Enhance and restore natural creek channels, and 6.) Broaden Understanding of the Bay's Natural and Sociological History.

The Humboldt Bay NWR has a management plan for refuge and three Environmental Assessments for refuge expansions (Hard copy maps available; no GIS). The NWR also produced a beach and dunes management plan 1995, organized the Humboldt Bay Symposium in 1996, and is currently participating with the Humboldt Bay Harbor Conservation District and other local, state, and federal agencies in the preparation of the Humboldt Bay Management Plan and GIS (see above).

Contact: Kim Forrest, 1020 Ranch Road Loleta, California 95551 (707) 733-5406 E-mail: kim_forrest@fws.gov

Other contacts:. Greg Goldsmith, 707-822-7201, greg_goldsmith@fws.gov, GIS Analyst with the Humboldt Bay NWR is coordinating production of the integrated GIS for the project.

Humboldt County Parks: Humboldt County has 10 parks maintained by Humboldt County Public Works. Director Allen Campbell, 1106 2nd Street Eureka, CA 95501 Phone: 707-445-7652 Fax: 707 445-7409. No parks managed for wildlife or as natural areas but several with beach and estuary access.The largest county park, Clam Beach, totals about 220 acres.

Del Norte County Parks Department: (707) 464-7230. No parks managed for wildlife or as natural areas but several with beach access.

Redwood National and State Parks*: The Redwood National and State Parks have a MOU to co-manage Redwood National Park and three adjacent State Parks in the region. Fisheries biologist, Dave Andersen, 707-464-6101 (x5271), david_g._andersen@nps.gov, and hydrologist, Randy Kline, 707-464-6101 (x5441), participated in the 1996 Coastal Ecosystems Workshop and have had contact with SSNERR staff. Dave Andersen is currently updating the 1983 management plan of Redwood Creek estuary; it will be available September 1999. Redwood NP has been monitoring water temperature and elevations since the mid-1980s. Juvenile chinook and steelhead surveys have been ongoing since 1982.

Redwood National Park is part of the North Coast Geographic Information Cooperative (www.ncgic.gov) a GIS data sharing network including private timber companies and local, state, and federal agencies along the Northern California coast. Contact David Best (707-464-6101 x5448), GIS coordinator with Redwood National Park, or Greg Goldsmith (707-822-7201, greg_goldsmith@fws.gov), GIS coordinator for Humboldt Bay NWR, for information.

Yurok Indian Reservation*: Troy Flecher (707-482-2921), fisheries program manager, Dave Hilimeyer, project manager/science director. Dan Gale and Mike Belchek, biologists (doing Estuary Research). The Yurok Reservation was established in 1993 when it separated from the Hoopa Reservation. The Reservation boundaries (originally established in the 1850s) include 44 miles of the lower Klamath River to the mouth and all lands one mile from the river and estuary. The tribe recently established a Natural Resource program with a major focus on managing the Klamath estuary. Several research and management projects partner with adjacent reservations, state and federal agencies, and other upland land owners/managers in multi-jurisdictional watershed management.

The Yurak Tribal Natural Resource program is currently pursuing two principle research agendas in the Klamath estuary and is developing plans a third. The first research focus involves an investigation of mammal predation of pacific salmon. The final report, available in September 1999, will be one of the first quantitative studies on the Pacific Coast. The second research focus involves developing an better baseline of the estuaries biophysical characteristics. Baseline inventory work has included a hydro-acoustic monitoring of the river/estuary bed and preliminary habitat typing of the estuary environment. The Tribe's Natural Resource program is also interested developing a water quality monitoring program for the estuary to complement current

efforts on the upper river. Troy Flecher expressed interest in developing relationships throughout the region to improve the tribe's estuarine information system, research, and management.

Mike Wallace of CDFG. (wallac@dfg2.ca.gov) 707-822-3702 has conducted biological and physical monitoring and assessment of the Klamath estuary since 1986 including estuarine habitat typing using the Oregon Marine and Estuarine Classification System developed by Richard Starr (1979).

California Coastal Conservancy: Mark Wheetley, 707-441-5884, mwheetley@igc.org.

California Natural Heritage Program: Bonnie Turner, 916-323-6201 and Sharon Taylor 916-323-6201

Oregon Contacts

Lower Columbia River National Estuary Program: Robert Warren, Natural Resource Specialist, Kathy Taylor, director, 503-325-0435. http://www.oregonvos.net/~crest/

Tillamook Bay National Estuary Program (TBNEP)*:
http://www.orst.edu/dept/tbaynep/nephome.html, Steve Nelson, 503-322-2222. TBNEP has an extensive GIS with a variety of wetland and estuarine habitat information for Tillamook, Netarts, and Nestucca Bays. Numerous restoration, monitoring/assessment, and education projects are underway in Tillamook Bay.

Northwest Habitat Institute, http://www.nwhi.org, Chris Killsgard, 541-929-6330, habitat@nwhi.org) is currently conducting a habitat mapping project for the entire Oregon Coast Range.

Oregon Coast National Wildlife Refuges: Roy Lowe, 541-867-4550, roy_lowe@fws.gov. The National Wildlife Refuge also manages the Julia Butler Hansen Refuge for the Columbian White-tailed Deer Refuge and Lewis and Clark National Wildlife Refuge in the Columbia River estuary, contact Ann Sittauer, P.O. Box 566 Cathlamet, WA98612-0566Phone (360)795-3915Fax (360)795-0803, anne_sittauer@fws.gov. Other contacts: Nathen Caldwell, 541-867-4550. For GIS: Ron Bitel and David Dresher, 503-231-6841.

Oregon Department of Fish and Wildlife (ODFW): ODFW manages a few wildlife and public access areas. Dan Van Dyke, wildlife biologists, 541-888-5515; Doug Cottam, ODFW wildlife biologists, 541-757-4186 x250.

Oregon Parks and Recreation Department (OPRD)*: OPRD manages numerous State parks, recreation areas, natural areas, and scenic vistas along the Oregon Coast. Kathy Shutt, Master Planner Team Leader, 503-378-4168 (x265) is a primary natural resource contact for OPRD. She provided a list other important OPRD contacts for research, education, and stewardship partnerships/information sharing. Most available habitat and vegetation information for OPRD

lands are not in digital form and vary in age, level of detail, and methodology depending on the site. According to Kathy, "mapping spans a range from up-to-date and digital to 15 years old and manual." Parks and reserves that have undergone master planning most recently have more detailed information. Some site specific information on specific estuaries is available. Someone would likely need to visit the State Parks office in Salem and go through the hard copy maps and inventories.

Other Contacts (provided by Kathy): Jay Schleier (x308) is the OPRD Natural Resource Coordinator. He is usually involved with on the ground projects and many inventory and monitoring contracts. He works with the forester Al Tocchini (x245) Maria Thi Mai (x341) is the OPRD Interpretive Coordinator. She is very interested in participating in start up discussions regarding any interpretive or educational campaign that would inovlove the department.

Nan Evans (x266) is the Policy and Planning Division Administrator who participates in most coastal policy discussions. Bill Herman (x282) is the OPRD GIS/mapping specialist at the Salem office. He summarized the status of park boundaries and available GIS data. State Parks is in the process of building a GIS for the park system but it is in the early stages. Boundary, ownership, and access information is not readily available, even in hard copy format. The ownership coverage available through the State GIS Service Center has many inaccuracies with respect to State Parks (both in boundaries and attribute data) in part because many parcels are labeled as being owned by Oregon Department of Transportation. OPRD use to be a division of the Oregond Department of Transportation ODOT but was separated in 1991. Moreover there are some undeveloped lands owned by State Parks that could have significant ecological value.

Oregon Department of Transportation (ODOT): ODOT holds title to extensive coastal property in Coos and Curry Counties. These areas include coastal cliffs, coastal shrublands, intertidal beaches, intertidal agal beds. ODOT does not actively manage these right of way lands but recently conducted a habitat and water resources inventory and would be interested in mitigation and or restoration activities. Contact: Max Mizejewski, Region 3 Environmental Services, 541-957-3519, max.j.mizejewski@state.or.us.

Nature Conservancy : John Hawk GIS Analyst, 230-1221; Debbie Pickering, Oregon Coast Stewardship Ecologist, 541-994-5564. The Nature Conservancy is currently working with the Oregon Natural Heritage Program on a GAP management GIS containing with all the protected areas on public and private land in Oregon. The GIS should be available by August 1999 through the State GIS Service Center or contact Terry Campos at 230-1221 ext. 331.

Fort Clatsop National Memorial*: The Fort Clatsop National Memorial manages 125+ acres on the Lewis and Clark Estuary in Youngs Bay near Astoria, Oregon. A part of the National Park System, the National Memorial employs natural resource staff and is involved in several research, restoration, and public interpretation activities and partnerships in and around Youngs Bay. They include: 1.) Co-management of 30 acres of diked pasture with the Fort Clatsop Historical Association with plans to restore saltwater marsh habitats and eventually transfer to the National Memorial, 2.) Ongoing subduction quake research headed by Brian Atwater of the USGS, 3.)

public interpretation activities surrounding the Lewis & Clark Bicentennial, 4.) Curriculum development on biodiversity and landscape history with the Fort Clatsop Historical Association, 5 Microflora analysis and paleoecological research of estuarine sediments headed by Johnathon Huges of Simon Frazer University. Contact, David Ek, Resource Management, 503-861-2471.

North Coast Conservancy*: Neil Maine, North Coast Conservancy 5107 Hwy 101 N. Seaside, OR 07138, phone/fax: 503-738-4021, cell phone: 503-717-2298. The North Coast Conservancy is currently developing a GIS for many of its project sites. Contact John Graves at 503-338-6749.

Wetland Conservancy: Phil Lamb, 503-691-1394.

Oregon Dunes NRA : Ed Becker, Ranger; Ann Carlson (replaced Kerrie Palermo), 541-271-3611.

Siuslaw National Forest*: Cindy McCain, Forest RNA coordinator, 541-750-7000; Carol Bickford, Hebo District, 503-392-3161; Doris Tai, Waldport District Ranger, 541-563-3211; Sarah Greene, PNW Research, Hebo District, 541-750-7360; Bob Frenkel, OSU professor, 541-737-1207. Carol Bickford, Hebo District, 541-750-7360. GIS contacts: Diane Rainsford, 541-750-7000.

Bureau of Indian Affairs: Jim Lebret, Branch Chief of Resource Compliance, in the Portland Area Office, 503-231-6702.

Coquille Tribe: Mark Healy, 541-756-0904.

Siletz Tribal Council: Mike Kennedy, Natural Resource specialist, Frank Simmons, Fish and Wildlife Tech, 541-444-2532.

Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians: Izia Ursprung, 541-888-9577. The Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians have a 100 acre coastal dune property currently managed as a cultural resource site but the area could eventually be developed.

BLM Oregon Office: Deputy for Resources in the Oregon BLM office, Bill Bradley. Statewide GIS coordinator, Lisa Blackburn, 503-952-6276.

Salem District BLM: Steve Gobat, (541) 574-3142. Ron Exeter, (541) 315-5977 in charge of ACEC/RNA/ONA management, Michele Davis, GIS Coordinator, 541-315-5977.

Eugene District BLM: Cathy Pendergrass, Coastal Resource Area botanist, 541-683-6600.

Coos District BLM: Neil Middlebrook, Kerrie Palermo 541-756-0100.

Lincoln County Parks: Jim Chambers, Lincoln County Parks Department, 541-574-1215.

Douglas County Parks: Jeff Powers, Parks Director, 541-440-4500, FAX 541-440-6248. Douglas County may have undeveloped sites.

City of Reedsport: 541-271-3603.

Lane County Parks: Lane County Parks Department, 541-682-2000. No coastal parks.

Curry County Parks: George Logston, Park maintenance, 541-247-7074.

Coos County Parks: Gary Combs, Coos County Parks Department, 541-396-3121, coospark@iceinternet.com.

Tillamook County Parks: Charles Andersen, Tillamook County Parks Department, 503-322-3477.

Clatsop County Parks: Jeffrey Burmingham, 503-325-9306, Clatsop County Parks Department.

APPENDIX J: MEMORANDUM OF UNDERSTANDING; EXAMPLES

- Draft model MOU for South Slough NERR Cooperative Plan

- sample Draft MOU between Clatsop Community College and Portland State University

DRAFT MODEL MOU FOR South Slough NERR COOPERATIVE PLAN

MEMORANDUM OF UNDERSTANDING

Parties:

This agreement is entered into by and between South Slough National Estuarine Research Reserve hereinafter referred to as SSNERR and ....*(other party)*.... hereinafter referred to as .....

Recitals:

WHEREAS the undersigned parties seek to protect the SSNERR watershed; and

WHEREAS the undersigned parties also seek to increase and protect habitat values; and

WHEREAS ....*(add any other goals)*...

NOW, THEREFORE, IT IS HEREBY AGREED BETWEEN THE PARTIES AS FOLLOWS:

Agreements:

<<Actual areas of agreement and policies must be negotiated with individual agencies and property owners. The actual agreements and policies will also depend on what objectives SSNERR is trying to achieve on the property in question and what the other party is willing to agree to.>>

This Agreement concerns the lands located ....*(Describe the area of concern, whether by stream reach, by legal description, or by other means of clear identification)*...., hereinafter referred to as the subject area.

1. To the extent that such information is reasonably available to SSNERR, it will provide to ....*(other party)*..... available information concerning habitat, wildlife, stream morphology and hydrology, topography and other available information relating to the subject area.

2. To the extent that such information is readily available to ....*(other party)*...., it will provide to SSNERR available information concerning habitat and ecology, planned development, planned logging and other information affecting the subject area.

3. SSNERR and ....*(other party)*.... will consult with each other and consider the policies contained in this Agreement and the information provided by each other when planning for the subject area.

4. SSNERR and ....*(other party)*.... agree on the following management and stewardship policies:

   (A)
   (B)
   (C)

<<This area might cover such topics as:

- *Logging policies*
- *Policies on buffers around streams and other important habitat*
- *Policies on how and where pesticides and herbicides can be used*
- *Policies on development*
- *Public access policies*
- *Off-road vehicle use policies*
- *Policies on building new logging roads and decommissioning old roads*
- *Policies on mushroom and forest products gathering*
- *SSNERR responsibilities; such as initiating and completing habitat improvements, monitoring, maintenance, etc.*

Policies can run a spectrum of regulation – from prohibiting certain activities to requiring concurrence between the two parties before certain activities are permitted to requiring one party to consider the recommendations of the other prior to making a specific decision. The degree of regulation of activities will vary depending on the goals of SSNERR and the outcome of the negotiations between the other party and SSNERR.

For example, in the case of logging, SSNERR and the County could agree that no logging will occur within a certain distance, such as 200', of a stream. Or, the two parties could agree that no logging permits will be issued within a specific area without the concurrence of both parties. Or, they could agree that the County will notify SSNERR prior to issuing a logging permit and will consider SSNERR's recommendations prior to making a decision. This last agreement allows SSNERR's opinion to be noted, but it provides the least amount of protection.

SSNERR may also wish to seek the ability to make recommendations about certain actions that are not within the subject area, but that are adjacent to it. To use the logging example again, if the County agreed to prohibit logging within 200' of a stream, SSNERR may also wish to be notified if the County is considering granting a logging permit adjacent to that 200' buffer and to provide recommendations for the County to consider prior to making a decision.

As an additional note, it may be necessary to include additional numbers here if there are numerous areas of agreement, and then to renumber subsequent items.>>

Review and Amendments:

<< The process for reviewing and amending the agreement must also be negotiated. A sample review and amendment procedure follows for use as a model.>>

5. This Agreement commences immediately and will automatically renew every year on ....*Date e.g. July 1*.... unless terminated by one party giving the other party written notice prior to ....*Date e.g. May 1*.... of intent to terminate on the following ....*Date e.g. July 1*..... In the event such notice is given, the parties will not meet later than ....*Date e.g. June 1*.... to discuss the reasons for termination. If agreement to continue is not reached by ....*Date e.g. June 30*...., this Agreement shall terminate.

6. The parties will meet to negotiate resolution of problems or conflicts concerning interpretation or implementation of the terms of this Agreement. A neutral third party may be used, if the parties agree, to help facilitate the negotiations.

7. This Agreement may be amended by written application from one party to the other, if there is written concurrence by the responding party. Amendments shall be ratified by each party, and made part of this Agreement.

8. The parties shall jointly review this Agreement at least every three (3) years from the date of signing hereof to evaluate the effectiveness of the policies set forth herein and to propose any necessary amendments. The results of the evaluation and any proposed amendments will be reviewed with each governing body.

_____	_____
Signature	Signature
_____	_____
Signature	Signature

Clatsop Community College/Portland State University
Science Education and MERTS-Related Activities
Memorandum of Agreement

DRAFT

The parties to this Memorandum of Agreement are Clatsop Community College ("CCC") and Portland State University ("PSU").

As of the date of signature below, CCC and PSU agree as follows.

1. Overview

CCC and PSU agree to cooperate in the ongoing development of the Marine and Environmental Research and Training Station ("MERTS") at South Tongue Point. CCC is the owner and host institution for MERTS. Other parties with which CCC and PSU may cooperate in this development effort include the Coastal Studies and Technology Center, Oregon Graduate Institute, the State of Oregon's Division of State Lands and other public and private-sector interests.

2. Background

The Master Plan for MERTS called for a collaborative effort among founding partners including CCC and PSU, to make physical improvements at MERTS Campus and develop programs to meet the mission of MERTS and its partners. MERTS Phase I was constructed under a grant from the Office of Naval Research and was opened in January, 1996. Within the Phase I building is (1) an office available for use by PSU, and, (2) available communication, photocopying and meeting facilities. PSU has hired a staff member who occupies the referenced office and represents PSU at MERTS and in the community.

PSU has endeavored to bring upper division and graduate courses to MERTS as part of program development. During the summer of 1996, PSU staff conducted two courses successfully, using classrooms at MERTS and field resources in the area. PSU's staff organized a regional research overview meeting at MERTS in December, 1996 which yielded several opportunities for future collaboration.

PSU is currently working with CCC and others in an NSF-sponsored project, the Pacific Northwest Environmental Studies Program, which purpose is to develop and offer articulated curricula in environmental studies.

CCC and PSU have recognized their complementing agendas and capabilities and wish to advance environmental education, training and investigation through mutually beneficial initiatives.

PSU, through its Center for Science Education, has embarked on a long-term commitment to the North Coast of Oregon through its numerous activities in the community including collaboration with the Coastal Studies and Technology Center, the Haystack Rock Awareness program and others.

South Tongue Point and the adjacent natural areas and varied habitats offer a fertile environment for pursuit of the understanding and interpretation of natural systems and processes. MERTS is an ideal focal point of future projects.

3. Statement of Commitment

PORTLAND STATE UNIVERSITY will:

A. Provide the salary and associated benefits for a PSU staff member at MERTS.

B. Concentrate on developing an articulated baccalaureate environmental studies curriculum at CCC through its educational initiatives, while promoting and presenting upper division courses at CCC and MERTS, as appropriate.

C. Offer only upper division coursework in the CCC service district, except by special agreement, when appropriate lower-division courses are not available at CCC to meet bachelor's degree requirements.

D. Pursue investigative work including experimentation and monitoring conditions in the proposed "Living Machine" wastewater treatment greenhouse, studies of non-indigenous species, particularly aquatic organisms, and continuation of coastal lakes work.

E. Facilitate public access to resources and natural systems available at the MERTS site and in the region

F. Address the lower Columbia component of interpretive planning and training for the upcoming Lewis & Clark Bicentennial scheduled for the year 2004, as part of its service to the community.

G. Pursue funding from a variety of sources for its long-term research and education activities at MERTS and on the North Coast.

H. Cooperate to the fullest extent possible with CCC, OGI, CSTC, the State of Oregon and others in a) planning the broad range of research and education activities at the MERTS facility, and, b) seeking additional funding for them.

Exhibit A attached to this Agreement is a Prospectus which describes in more detail the activities PSU expects to undertake at MERTS and is incorporated by reference into this Agreement.

CLATSOP COMMUNITY COLLEGE will:

A. Provide classroom space and laboratory facilities as available in support of PSU-developed courses and programs.

B. Provide Internet and First Class (LAN) e-mail connection to PSU staff.

C. [Library use policy -*This requires further discussion on campus.*]

D. Provide for an office space for PSU's staff representative at MERTS.

E. Provide display space at appropriate campus facilities to announce and describe PSU programs.

F. Provide custodial service to unlock buildings for Saturday classes. PSU's MERTS staff will be responsible for making necessary arrangements for access and will be responsible for buildings during use by PSU personnel. Persons employed by PSU to teach PSU courses are considered to be PSU personnel. PSU is responsible to CCC for building spaces and equipment in its use.

G. Compensate qualified PSU instructors at CCC part-time rate of pay to deliver lower-division CCC courses determined to be essential for program completion and for which CCC lacks available instruction personnel.

H. Allocate space in the quarterly schedule and catalog to include references to the PSU/MERTS program and to advise students of the availability of a PSU/MERTS advisor. Information regarding specific PSU course offerings will be included in a space available basis. Copy will be prepared by PSU.

I. Direct inquiries in the areas of study covered by the PSU program to PSU /MERTS staff.

J. Discuss with PSU design and marketing plans intended to increase community awareness of science education opportunities at CCC and MERTS.

K. Distribute information concerning the MERTS programs to CCC employees.

5. Initial project period

This agreement will cover an initial period of two years beginning on or about June 9, 1997. Both PSU and CCC will review this Agreement and propose any necessary revisions prior to fall, 1999.

6. Cancellation of agreement

Either CCC or PSU may cancel its participation in this agreement by providing the other party at least sixty calendar days' notice.

7. Lease and Rent

CCC agrees to process a sub-lease application from PSU for office and other space in the MERTS facility. The term of the sub-lease may exceed the two-year period of this agreement. PSU will pay direct costs of telephone, reproduction and fax service.

IN WITNESS WHEREOF, the parties have caused their duly authorized representatives to execute this agreement as of the date indicated.

Portland State University: DRAFT

_____ Date: _____

Clatsop Community College:

_____ Date: _____

APENDIX K: LETTER FROM MR. WARREN DERAS

WARREN C. DERAS
ATTORNEY AT LAW
1400 SW MONTGOMERY
PORTLAND, OREGON 97201-6003
TELEPHONE (503) 222-0104
FAX (503) 222-1834

January 1, 1998

RECEIVED
JAN 05 1998

Mr. William R. Cook
Oregon Department of Justice
Natural Resources Section
1162 Court St. NE
Salem, OR 97310-1320

Post-it® Fax Note 7671	Date	# of pages ▶
To Paul Cleary	From Bill Cook	
Co./Dept. DSL	Co. DOJ	
Phone #	Phone #	
Fax #	Fax #	

Subject

Dear Bill:

When we met last month you asked me to look at the issues raised by Paul Cleary's memorandum of November 13, 1997, concerning use of funds received by the Division of State Lands from the estate of Chalmer W. Gustafson. Mr. Cleary was particularly concerned about whether the funds could be used to develop a property acquisition plan and an administrative boundary adjustment plan.

Mr. Gustafson's will gives the residue of his estate to the Division of State Lands "for the sole use and purpose of acquiring additional land to be added to and become part of the South Slough National Estuarine Research Reserve, Charleston, Oregon." The will goes on to provide:

> "In the event that the foregoing devise should fail or be impossible to fulfill for any reason, then I devise the residue of my estate to the State of Oregon, Department of Fish and Wildlife, for the sole use and purpose of acquiring land for a wildlife refuge or to add land to an existing wildlife refuge."

Should that purpose also fail, the funds are devised to Ducks Unlimited "for the sole use and purpose of acquiring lands for use as a waterfowl nesting area."

ORS 112.227 provides:

> **112.227 Intention of testator expressed in will as controlling.** The intention of a testator as expressed in the will of the testator controls the legal effect of the dispositions of the testator. * * *

In this case the language of the will is clear and consistent, and no deep analysis is required.

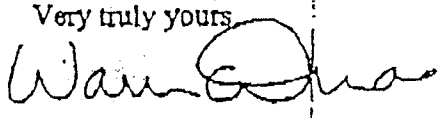
The core phrase used throughout the will is "acquiring land". This phrase is obviously broader than "pay the purchase price" or similar terms which might have been used to indicate a limited part of the acquisition process. Particularly in light of the fact that the gift is made to a governmental agency, Mr. Gustafson must have been aware that the acquisition process would necessarily include such costs as developing acquisition plans and obtaining the approval of government bodies. So

long as these activities are necessary steps in achieving the ultimate goal of "acquiring land", they are within the scope of permissible uses of the funds. I would also include in this permissible category the payment of appraisal, condemnation or similar acquisition expenses, should those become necessary.

One note of caution should be mentioned. It appears from Mr. Corna's memo of November 7, 1997, to Mr. Cleary that an acquisition plan must consider what "level of control" is appropriate to meet the objectives of South Slough NERR. I gather from this that it might be possible to satisfy State needs with something less than fee ownership of land. This could include various types of easements. Acquisition of an easement may or may not be within the scope of "acquiring land", but my initial reaction is that it is not. If the determination is made at some point that no further acquisitions of ownership of land are needed for the South Slough NERR, then the Division will need to consider whether the gift to it can be used to fulfill Mr. Gustafson's intent.

I have not looked into what mechanisms are available to enforce the provisions diverting the gift from Mr. Gustafson to the Department of Fish and Wildlife on failure of the gift to the Division of State Lands.

Very truly yours,



APPENDIX L: CPAC AND PUBLIC OPEN HOUSE MEETING DOCUMENTS

AN EXTRAORDINARY GIFT

In an extraordinary act of generosity, in 1994 Coos Bay resident Chalmer Gustafson left his entire estate -- $1.6 million -- to the South Slough National Estuarine Research Reserve.

Mr. Gustafson's will directed the Reserve to use this money for land to support and enhance Reserve services. Those services, as stated in the Reserve's mission statement, are:

To provide opportunities for long-term estuarine research, education and interpretation, with particular emphasis on the estuaries of the Pacific Northwest.

Over the next several years, the Reserve will seek to carry out Mr. Gustafson's wishes by entering into purchase, trade, or easement agreements with *interested landowners* of potentially eligible lands. The Reserve also hopes to maximize the benefits of this extraordinary gift by using the $1.6 million to generate additional dollars, up to $8 million total, from grants and matching funds.

Voluntary, negotiated transactions with willing landowners are the only means by which the Reserve acquires property. The Reserve does not engage in condemnation of private property.

South Slough Reserve wants to spend Mr. Gustafson's money carefully, in ways that best meet Reserve and community needs. A 16-member Conservation Plan Advisory Committee, made up of local business, government and community representatives is advising the Reserve on how to:

- Identify lands best suited for willing-seller transactions
- Identify lands bust suited for management partnerships
- Increase available funds through grants or matching funds.

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

SSNERR
Conservation Plan Advisory Committee Meeting

April 21, 1999
2:00 pm to 5:00 pm
North Bend Water Board
Conference Room
2305 Ocean Blvd
Coos Bay, Oregon

A G E N D A

AGENDA

INTRODUCTIONS

REVIEW OF FEEDBACK FROM OPEN HOUSE

REVIEW OF LAND CRITERIA

EXERCISE TO ESTABLISH PRIORITY PROPERTIES

NEXT STEPS

ADJOURN

South Slough
National Estuarine
Research Reserve

Meeting Note:
South Slough
April 21,1999

Participants:
Craig Cornu
Steve Wickam
Tom Green
Marjorie
Ann
Bob
Andy
Dan
Introductions by Cathryn
Nancy presented a "typical" acquisition map and discussed methods of allotting dollars to take care of Essential properties(Tier 1), Tier 2 ,as well as "opportunities".
Craig & Cathryn summarized the last workshop and discussed the willing sellers.

General Discussion by the group regarding areas priorities:
General agreement to look at sites around the "existing investment".
Marjorie emphasized the need to keep things in the "area".
Craig reminded the group of the larger system aspects that should continued to be looked at - this could, as an example, include coastal cliffs even if they were in California.
Several group members reminded Craig that area on the map was really there main concern. However, that did not exclude the Slough staff from pursuing partnerships or research projects outside the area.
Andy brought up the fact that a large wetland area and ranch may be purchased by Ducks Unlimited. He did not have an exact location.

Cathryn asked each member to make their choice of the "most important" property . If only one property could be protected which one would they choose?
Only one choice was allowed per committee member (this process was repeated 3 times)
Members selected the following areas:

	#1 Blue	#2 Yellow (red on map)	#3 Green
Tildon Property	1	----	-----
Indian Pt.	1	-----	-----
Roseburg	2	1	-----
Georgia Pacific	2	2	1
County property	1	2	1
Slough (tidal waters)	1	---	------
East side streams	---	2	1
Estuary	-----	----	1
Charleston *	---	----	5 (2 votes by Craig)

*Members noted that Charleston was intended to mean an "opportunity" in Charleston that would bring a Slough presence into the city - possibly an educational facility in the Kelly's boatworks.

Committee Discussion:
After Round 1 members discussed their choices, subsequently Tom and Steve moved their pins to the Roseburg property. Bob moved his pin to the County property.
The new round 1 was as follows:
Roseburg - 4
Indian Pt. - 1
Georgia Pacific - 1
County - 1
Marjorie: Pointed out that the upper bay needed to be preserved from industrial use
Dan: Discussed the impacts of oyster farming on shorelife, he suggested that lease rights be purchased.
Craig: Expressed a sense of urgency to protect the resource but noted that no new research opportunities were being discussed.
Ann: Noted the need to integrate the South Slough into the community.
Steve: Suggested that the staff was not making the most of the current research opportunities and proposed that someone look at the impact of logging on sediment loads in the streams.
Bob: Reiterated the need to do something for Charleston similar to the Newport area.

Points made about properties:

Roseburg Property: Heron rookery, bald eagle nest, large, contiguous block of land, potential partnership opportunity.

Georgia Pacific Property: Control could be exerted over a sub-watershed, large , contiguous block of land, cost effective.

County Property: Need to control Winchester Creek & Cox Creek, obtain water rights, potential coho spawning beds, ranch research opportunity, control would not only be for logging but also conflicting uses i.e. rifle range and dirt bikes

Tildon: adjacent to the slough.

Indian Pt. - at a high risk for development as a destination resort, visual degradation and destruction of an archeological resource. Andy noted that he would feel that he failed if this process did not result in saving Indian Pt. Marjorie also supported control of the property.

East side: Need to protect Talbert (Sp.?) and John B. Creek and watershed

The next workshop was scheduled for May 19.

SOUTH SLOUGH NERR FOCUS AREA RANKING CRITERIA

Goal 1. Protect the Integrity of Existing Investment

Objectives:

A. Provides increased control over intact watersheds tributary to South Slough and existing Reserve
   1. Provides for protection or conservation of important ecological functions (i.e. water quality, wildlife corridors, wetland hydrology, genetic resources and dispersal pathways, critical habitat for RTE species, etc.)

B. Provide increased control over South Slough hydrographic unit

C. Provide increased control over mineral and water rights for lands within the current and future Reserve boundary

D. Non point/point source control ???

Goal 2. Enhance Reserve's Ability to More Fully Meet Its Programmatic Objectives

Objectives:

A. Provide increased opportunities for upland habitat research, restoration, education and stewardship

B. Provide increased opportunities for "green box" and "built" environment research, restoration, education and stewardship

C. Provide opportunities for research, restoration, education and stewardship in NOAA ecosystem typologies not or under-represented within the current Reserve administrative boundary including:
   - Coastal Cliffs
   - Coastal Shrubland
   - Coastal Grassland
   - Intertidal Beaches
   - Subtidal Hardbottoms

D. Provides for conservation of aesthetically (views, sounds) and culturally important sites

E. Provide conservation of outstanding biological and archaeological important resources

Goal 3. Address Specific Projects and Opportunities

Objectives:

A. Provide opportunities for experimental demonstration of ecologically and economically effective agricultural land uses

B. Provide opportunities for coastal ecosystem research including salmonid habitat restoration research

C. Provide potential for sustainable economic development including ecotourism

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

MEMORANDUM

TO: Conservation Plan Advisory Committee (CPAC) Members
FROM: Cathryn Collis, Collis and Company, Paul Fishman, Fishman Environmental Services, and Nancy Chase
DATE: April 27, 1999
SUBJECT: Future Meetings

SSNERR Conservation Plan Advisory Committee

Will hold two meetings on the following dates:

May 19, 1999: To develop acquisition strategy

June 9, 1999: To review draft plan

An agenda will be sent prior to each meeting.

Both meetings will be from 2:00 pm to 5:00 pm at the Coos Bay - North Bend Water Board, Conference Room, 2305 Ocean Blvd, Coos Bay, Oregon.

There will be a public open house on June 30th. Details will follow.

Please confirm with Mollie at Fishman Environmental Services (503-224-0333) by May 10, 1999, that you plan to attend these important meetings. SHE NEEDS TO KNOW IF YOU ARE OR IF YOU ARE NOT GOING TO BE THERE.

RSVP at 503-224-0333 by May 10, 1999.

South Slough
National Estuarine
Research Reserve

SSNERR

Conservation Plan Advisory Committee Meeting

May 19, 1999

2:00 p.m. to 5:00 p.m.

Coos Bay-North Bend Water Board

Conference Room

2305 Ocean Blvd

Coos Bay, OR

AGENDA

Introductions

Summary of Process to Date

Review of Three Tiers of Priorities (results of last meeting)

Discussion on Long Range Prospects and Use of the Three Tier System

Review and Discussion of Options for "Control" of Property

Next Steps

Adjourn

Meeting Notes:
South Slough
May 19, 1999

Participants:	Fishman Staff:
Craig Cornu	Cathryn Collis
Mike Graybill	Nancy Chase
Anne Donnelly	
Rob Schab	
John Brands	
Dan	

Cathryn summarized the progress to date and the results of the last meeting.
The committee discussed the tier arrangement and its implications. Annie suggested that the tiers be rearranged by tributary values vs. west side east side. There was discussion on how properties outside the slough watershed but in the bioregion would fit in the tier process. There was consensus that the major focus of resources should be to protect areas around the slough.
Other concepts evaluated by the group were the bioregion opportunities and lands with tidal influences.
It was agreed that the bioregion concept be handled through partnerships and that the tier structure would acknowledge ocean inputs and shoreline.

The committee agreed to restructure the tiers and allocate resources as follows:

Tier 1: Winchester Creek watershed -10%
The watershed is critical to protecting the South Slough mission but fewer resources need to be expended because it is in public ownership (county).

Tier 2: Tributary watersheds that feed into the existing slough boundaries. - 30%

Tier 3: Other tributaries & oceaninputs, shoreline outside the Slough watershed. – 40%
Because of small parcel size and numerous ownerships more resources were allocated to this tier.

Tier 4: Establish a slough presence in the Charleston area. – 15%

Tier 5: Bioregion Opportunities 5%

After the above was completed the committee reviewed the acquisition question list. The Roseburg and county properties were used as examples . Staff was informed that they would need to work on expanding the list of questions to meet the slough needs.

The meeting adjourned after a reminder of the next meeting dates and the public workshop

SSNERR
Conservation Plan Advisory Committee
May 18, 1999

Acquisition/Management Strategy Path

Questions to be asked:

Why are you interested in the property? (Characteristics and values)
Does it meet any of the adopted goals?
Is the property in one of the adopted tiers?
If not is the property important enough to be considered an "opportunity"?

What level of control is needed to protect the property? Does all the property need to be protected or only certain elements (i.e. riparian areas)? What are the agency's goals in controlling the property?
What are the owner's goals for the property? (i.e. Do they want to sell all or part of the property? Are they interested in a donation or bargain sale? Would they be interested in a conservation easement, life estate or partnership?)

What is the long-term future for the property if it is not put in public ownership or otherwise protected (i.e. will it be logged or developed)?

Will the public ever need to enter the property if it's protected?

Is there an immediate need or opportunity to control the property?

Are there leverage opportunities for the property? (i.e. grants, contributions)

Would the owner accept a long term option or contract while outside $ are sought?

What will management of the property entail?

Who will manage the property?

Is there a house on the property? What condition is it in? Should it be demolished or rented? Does the owner want to lease back the home?
Should the house be used as a management unit?

SSNERR
Conservation Plan Advisory Team
May 18, 1999

Alternatives for Acquisition/Management of Property

Real Estate Terms:

Fee Simple Title: Landowners hold the fee simple title to their property. A landowner may sell this interest to another party at a mutually agreeable price. Transactions are usually subject to site and home inspections, an appraisal of the property, examination of title and an environmental inspection.

Real Property Appraisals: An appraisal is an expert opinion or estimate of the value of a property. It is based on the "highest and best use" of that property.

Conservation Easement: A conservation easement is a recorded restriction on the use of a piece of property. For example a conservation easement for the timber rights on a property could be purchased. The owner would continue to hold the fee title to the property and sell the property to others but the timber would be protected by the conservation easement in perpetuity.

Life Estate: If acceptable to both parties an owner may sell their property but retain a life estate. This would enable the seller to continue living and using the property while receiving a financial consideration. Upon the seller's death the purchaser would assume full ownership of the land.

Bargain Sale: A bargain sale occurs when a landowner sells apiece of property for less than its fair market value. The advantage to the landowner is that he/she may be able to deduct the difference between the sale price and the fair market value as a charitable contribution, if certain requirements are met.

Option agreement: The buyer acquires the option to purchase a property based on certain terms within a specified amount of time.

Purchase and sale agreement: An agreement between a buyer and seller in which the buyer contractually agrees to purchase property based on specific terms.

Right of first refusal: The owner of a property grants another party an opportunity to purchase the property when the owner is ready to sell.

SSNERR

Conservation Plan Advisory Committee Meeting

June 9, 1999

2:00 p.m. to 5:00 p.m.

Coos Bay-North Bend Water Board

Conference Room

2305 Ocean Blvd

Coos Bay, OR

AGENDA

Introductions

Summary of Process to Date

Review and Confirmation of Three Tiers of Priorities (results of last meeting)

Plan the Final Open House, Scheduled for June 30

- What information do we want to present?
- What type of presentation do we want and who should present the information?

Discussion of the Role of the CPAC into the Future

Next Steps

Adjourn

M E M O R A N D U M
May 25, 1999

TO: SSNERR CONSERVATION PLANNING ADVISORY TEAM

FROM: CATHRYN COLLIS, Facilitator

RE: SUMMARY OF AREA PRIORITIES

Greetings CPAC members! Our group has met two times over the past two months and made some very significant progress toward identifying the area priorities for our conservation planning process. Since a few of our members have had to miss both meetings, I thought it might be helpful to summarize the results of our work so everyone has a written record of where we are.

We have gone through a two-phase priority setting process whereby we first identified our top priority sites. We then grouped those sites by category or tiers and established a percentage of total SSNERR resources to be targeted to each tier.

We undertook the first phase at our April 21st meeting. At that meeting we put the large area map on the table and gave each member a single blue stickpin. The question put to each member was "If you could control or protect just one property in the area, which property would that be?' This was difficult for most players, because they wanted to choose more than one property. But we wanted to get the absolute priority from each member so, although somewhat artificial, we asked people to pretend they really had just one choice.

Two members chose the Roseburg property, two chose the Georgia Pacific property, and one member each choose the Tildon property, Indian Point, the County property, and the Slough tidal waters. After discussion where members were asked to share their rationale, two members moved their pins to the Roseburg property, and one member moved to the County property. We went through that process two more times, selecting second and third most important properties with yellow and green pins, respectively. The following reflects the results:

	#1 Blue	#2 Yellow	#3 Green
Tildon Property	0	0	0
Indian Point	1	0	0
Roseburg	4	1	0
Georgia Pacific	1	2	1
County Property	1	2	1
Slough (tidal waters	1	0	0
East-side streams	0	2	1
Estuary	0	0	1
Charleston*	0	0	5**

*Charleston was selected with the idea of watching for an "opportunity" that would bring a Slough presence into the city - possibly an educational facility.
**Craig could no longer stand just voting once and voted twice in this last exercise.

The group pointed out some important aspects of some of the identified properties:

- Roseburg property - Heron rookery, bald eagle nest, large, contiguous block of land, potential partnership opportunity.
- Georgia Pacific property - Control could be exerted over a sub-watershed, large contiguous block of land, cost effective.
- County property - Desire to control Winchester Creek and Cox Creek, obtain water rights, potential coho spawning beds, ranch research opportunity.
- Tildon property - adjacent to the slough.
- Indian point property - At a risk for development as a destination resort, visual degradation and destruction of an archeological resource.
- East-side - Need to protect Talbert and John B. Creek and watershed.

Finally, the group agreed that the focus for acquisition (in all its forms) should be on properties within the area. The focus in the greater bioregion should be on developing partnerships with other public entities for management influence.

At the May meeting, Cathryn summarized the priority properties and arranged them into a tier system. The group spent the meeting discussing this arrangement and reworking a classification system based upon tributary values. There was consensus that the major focus of the resources should be to protect areas around the slough. In addition to classifying the properties into tiers or categories of priority, the group identified the percentage of resources that might be applied to each tier. Assigning a percentage of resources to each tier frees up the Slough staff to actively pursue opportunities that may arise in the 5th tier while waiting for opportunities to develop in the 1st or 2nd tiers. The resulting classification was as follows:

Tier 1: Winchester Creek watershed - 10%
Winchester Creek watershed was identified as the most critical property to protecting the South Slough mission and addressing the CPAC's goals and selection criteria. The relatively low percentage of resources identified to pursue Winchester Creek acquisition and/or management partnerships in meant to reflect the already solid partnership between the County and the Slough.

Tier 2: Tributary watershed that feed into the existing slough boundaries - 30%.

Tier 3: Other tributaries and ocean inputs, shoreline outside the Slough watershed - 40%
Because of small parcel size and numerous owners, more resources were allocated to this tier.

Tier 4: Charleston - 15%

This tier is meant to reflect the resources it might take to seek and respond to opportunities for a Slough presence in the city.

Tier 5: Bioregion opportunities - 5%
This reflects the desire to dedicate resources to negotiating partnerships on lands outside the immediate area, but within the greater bioregion.

After the ranking process, the CPAC reviewed a draft acquisition question list (enclosed). The intent of this list is to help staff determine their strategy on any potential opportunity. It was pointed out that, so much of the acquisition strategy will be determined on an opportunity-by-opportunity basis, once the Slough staff has a chance to determine the goals of the willing seller.

The next meeting, scheduled for June 9th, from 2:00-5:00 p.m., will be dedicated to affirming these results and planning for our final community open house. The meeting will again be held at the Coos Bay/North Bend Water Board.

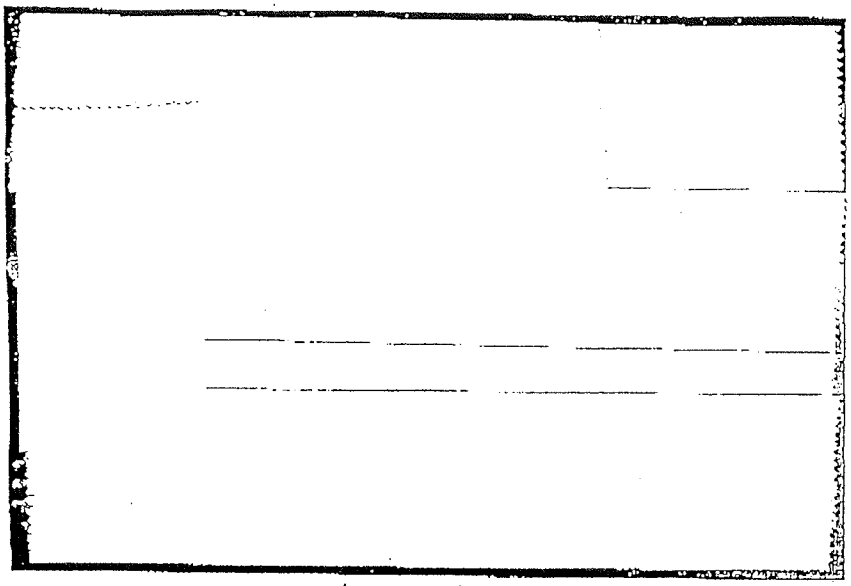
I hope this summary helps to update you on where we are. If you have questions or comments, please call me at (503) 721-0398.

Thanks, and I look forward to seeing you on **June 9th.**

June 25, 1995

COASTAL CLOSEUP

...l The Crawl premiere CD at Blues Bash



Contributed Photo

organ and The Crawl will perform at Bay Area Blues Bash IX along with co-headliners Slim and the Teardrops. The North Bend Firefighters Association fund-raiser kicks off n. on Friday, July 2, at the North Bend Community Center.

lagic Slim and the s. Morris "Magic Slim" powerful guitarist with a voice who plays no-frills, ic Chicago blues with a gy delivery that will u breathless and begging . In 1994 Eddie Vedder chose the band to open a show for the alternative rock band Pearl Jam.

As in the past, funds raised from the North Bend Firefighters Association's fund-raising efforts will be used in a number of local programs ranging from handicapped children to senior citizen groups.

Gregson's Restaurant will provide the food and there will be a beer garden. Tickets are $15 in advance and are available at Off the Record, located in the Bi-Mart Shopping Center in North Bend, 751-0301. All ages are welcome.

WHAT'S AHEAD

A hamburger barbecue at 6:30 p.m. The lodge sh the hamburgers and th members bringing hes to go with them. A eting will follow the din- are welcome. For more call 267-7347.

e Chamber seeks festival vendors

akeside Chamber of is seeking vendors for its nts.

Lakeside Water Festival ug. 11) — three days water activities, games, t fair, food booths, RV ow, live entertainment nd

er Fest and Drag Boat 11-12) — featuring the Neil Donegan "Classic" Races, sponsored by the Drag Boat Association. nd food booths will be junction with this event. re information or to endor application call r 269-2997.

Reedsport Branch Library to offer Saturday hours

Beginning Thursday the open hours of the Reedsport Branch Library will be: Mondays, 2-8:30 p.m.; Tuesdays, Wednesdays and Fridays, 10 a.m. to 6 p.m.; Thursdays, 2 to 6 p.m.; and Saturdays, 11 a.m. to 2 p.m. The library is closed on Sundays.

The library will close at 6 on Thursday evenings so that it can be open for three hours on Saturday to better meet the needs of the community of Reedsport and the surrounding area. All other days will remain the same.

North Bend Class of 1989 to hold reunion July 31

The North Bend High School Class of 1989 will hold its 10-year reunion the weekend of July 31.

The organizers are having trouble finding some of their class members. If you have addresses or telephone numbers of any 1989 NBHS graduates, call (503) 241-4293.

Sets-in-Order preparing for potluck picnic in NB

The Sets-in-Order square dance club of Coquille will hold a regular dance at the Coquille Community Center at 7:30 p.m. Saturday. There will be pre-rounds from 7:30 to 8 with Denise Harris. Square dancing with caller Johnnie Nichols will be from 8 to 10:30. All dancers welcome from the classes.

A picnic for the club will be held at 1 p.m. on Sunday at the home of Gabriella and Bud Todd in North Bend. Hamburgers, hot dogs and chicken will be furnished, so bring something to accompany them. Maps to the picnic location will be available at the dance. Warm weather is forecast, even if drizzly.

Round Table Poets invite all to monthly meetings

Round Table Poets meet regularly on the first Thursday of the month. The next meeting is scheduled for 11 a.m. to 2 p.m. on July 1 at 955 Fifth St. in Coos Bay. Share your poems and gain encouragement. For further information call 267-7613.

Reserve seeks input on lands to acquire with $1.6 million gift

Open house: South Slough-area acreage sought for expansion of estuarine research facility near Charleston.

The South Slough Reserve and a local advisory committee working with reserve staff invite the community to their second open house from 5:30 to 7:30 p.m. on Wednesday at the North Bend Public Library to help the reserve decide how to spend an anticipated $8 million triggered by a $1.6 million bequest by the late Chalmer Gustafson.

Under the terms of Gustafson's extraordinary gift, the bequest must be used to add lands to the reserve. The reserve has asked for the community's help in deciding how best to comply with Gustafson's wishes; ensuring that community perspectives are included as it considers what kinds of lands or easements to "shop" for, and where. The reserve intends to work with willing sellers only and seeks help in locating landowners interested in possible transactions.

A 16-member advisory committee made up of local business, government and community representatives is advising the reserve on how best to identify lands best suited for willing-seller transactions, identify lands best suited for management partnerships and increase available funds through grants or matching funds.

The open house will be the second chance for members of the local community to view the advisory committee's recommended criteria, ask questions, offer suggestions and comments and otherwise help guide the process.

At least one guideline is firmly in place: No condemnation. All existing reserve lands were purchased from landowners willing to sell. The South Slough Reserve Management Commission wishes to continue that long-standing policy of acquiring land rights only on a voluntary basis.

Chalmer Gustafson, a district engineer for the Bureau of Land Management, lived modestly in Coos Bay, working, hunting and enjoying the outdoors. His true financial status and his extraordinary generosity became apparent only upon his death in 1994, when he named the South Slough National Estuarine Research Reserve as sole beneficiary of his $1.6 million estate.

For more information, those interested can call the South Slough Reserve at 888-5558.

MOVIES

What: Areas That Contain Biologically and Archaeologically Important Resources

Why: ☑ Protects and provides research and educational opportunities:
- ☑ on endangered plant and animal species.
- ☑ in areas with large populations of plant and animal species.
- ☑ in areas with many different plant and animal species.

☑ Protects and provides research opportunities at archaeological sites.

What: A Ranch or Farm Situated on a Former Tidal Marsh

Why: ☑ Provides research opportunities for research on economically and ecologically effective agricultural practices and land uses.

What: **Areas That Include Fish and Shellfish Habitat**

Why: ☑ Provides additional opportunities for fish and fisheries research.

☑ Provides additional opportunities for salmon habitat restoration.

OPTIONS FOR INTERESTED LANDOWNERS

Examples of Possible Property Acquisition Transactions:

1. As a landowner, would you consider selling, trading or entering into management partnership(s) with the South Slough Reserve?
   - ☑ If yes, proceed to #2.
   - ☒ If no, process stops.

2. Are you a private landowner?
   - ☒ If no, proceed to #3
   - ☑ If yes, negotiate possible transactions that will likely focus on:
     - ☑ Fee-Simple Purchases
     - ☑ Purchased Conservation Easements
     - ☑ Life Estates
     - ☑ Property Trades
     - ☑ Tax-Deductible Donations

3. **In addition to purchases from private landowners, the South Slough Reserve may also explore opportunities for meeting some of its needs and obligations through standard cooperative agreements and interagency agreements with public land managers on existing public lands.**

If you are interested in discussing your property or property you know about, please contact the South Slough Reserve staff at (541) 888-5558

CPAC MEETING AT NORTH BEND WATER BOARD
23 FEB 99

NOTES

Map comments: Mike Kraig

- add Joe Ney Slough watersheds
- highlight streams
- highlight tidal areas
- Coos Bay entrance hydro-unit

ACTION ITEMS

☐ Feb 11 or 12 map of tarball observations
-map of tarball distribution
(New Carissa Web Site)

☐ think through title of map
☐ New Carissa grounding in line with airport runway.

MEETING NOTES:

- initial "split" apparent at first CPAC meeting between Goal 1 first, vs. Goal 2 first
- what is "green box"?
- are Goal 3 objectives: 1&2 (and 3?) really subsets of Goal 2, objective 2?
- really only 2 goals - 1&2
- one aspect of ranking is where > 1 "dot" is on map for a specific focus area.
- focus areas that meet all 3 goals are highest priority.
- blue dots inside SSNERR are all fresh water; i.e. only protect areas upslope of reserve. Blue Dot "A" - tidal portion of hydrologic unit (more volume of water in tidal portion then in freshwater portion).
- what about facility development? i.e. acquiring places for new facilities. Red Dot "A": school district Pony Creek wetland project.
- public notification for private and public owners? Coordination piece with local government, etc. Will SSNERR comment on permit applications where focus areas are identified?

* important point for SSNERR commission to discuss and read decision.

Red 2 - not viable now.
Red "B": Millicoma wetlands

NOTES (continued)

* > 1 map:
  - acquisition opportunities
  - cooperative opportunities
* Blue - 14-9 - not blue, should be green.
* Public Involvement:
  - too early for Open House
  - press release: money left for acquisition; process now in progress; etc.
  -don't do anything until New Carissa is gone.
* focus on benefits of particular sites

Public Meeting

- indicate times when a brief presentation will be made.
- be more direct in announcement: SS has $ "We've got your dot!"

Issue: existence of map with dots might be a big issue for land owners with dots - i.e. just the fact that it exists.

ACTION ITEMS (continued)

☐ Mike (and others) will separate sites into ≥2 maps.

☐ do press release

☐ contact landowners with dots prior to public meeting.

Map Review Group:
Dan, John, Bob, Craig, Mike

Press Release Review Group
Ann, Greg, w/photo
Margery

☐ Public Open House
March 30,
5:30-7:30 pm

ATTENDEES AT 2-23-99 SSNERR CPAC MEETING

NAME	ORGANIZATION
Rick Hayes	SSNERR - 888-5558
Mike Graybill	SSNERR - 888-5558
Rob Schab	CBN Bitco
Dan Varoujean	SSNERR Advisory Group
John W Brands	SSNERR Committee
Bev Owen	Coos County Commissioner
Craig Cornu	SSNERR
Paul Fishman	FES
Bob Laport	Coos County Forester
Margery Whitmen	Charleston Merchants Association
Anne Donnell	Coos Watershed Association
Larry Qudmer	Qudmer Oyster
Doug Stevens	The World
Cathryn Collis	Collis & Company

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

February 16, 1999

PROJECT PROCESS SUMMARY

The South Slough National Estuarine Research Reserve (SSNERR) contracted a consultant team headed by Fishman Environmental Services in October, 1998 to conduct the project "Cooperative Plan for Watershed Conservation." The project goal is to provide the SSNERR with an implementation plan to expand the stewardship of estuarine habitats consistent with the stewardship goals of the SSNERR Management Plan. The Project consists of two phases: 1) Background and Landscape Assessment; and 2) Implementation Plan.

Phase 1 will end with the submittal of a ranked list of project Focus Areas and an accompanying map.There will also be a Background section for the project report. The Focus Areas will be specific lands identified by the project that possess essential landscape attributes considered important to meet the SSNERR stewardship goals.

Phase 2 of the Project will develop the data and strategies needed to acquire lands identified in Phase 1 as Focus Areas. For this project, the term "acquisition" has several meanings: purchasing land (only from willing sellers); obtaining conservation easements; entering into cooperative agreements; developing partnerships; land trades; or other mechanisms to obtain stewardship responsibility.

Phase 1 activities to date have included:

- development of a stakeholder survey
- interview of 20 people in the SSNERR area, using the survey
- development of background information, project goals and objectives
- formation of a 16 member Conservation Plan Advisory Committee (CPAC)
- two meetings of the CPAC: November 17, 1998, and December 15, 1998
- development of draft Criteria by the CPAC for Focus Area selection and ranking
- distillation of draft Criteria and mapping of proposed Focus Areas
- development of a draft Background Section (in progress)
- preliminary planning for a public Project Open House for March 9, 1999
- meetings and coordination with SSNERR staff
- consultant team working sessions

We anticipate moving from Phase 1 to Phase 2 in March, 1999, and completing the project by the end of June, 1999.

South Slough
National Estuarine
Research Reserve

SSNERR COOPERATIVE PLANNING ADVISORY COMMITTEE

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SSNERR

CONSERVATION PLAN ADVISORY COMMITTEE

November 17, 1998
3:00 p.m. to 6:00 p.m.
OIMB Auditorium

A G E N D A

- INTRODUCTIONS
- ESTABLISH GROUND RULES
- REVIEW PROJECT SCOPE
- REVIEW BACKGROUND INFORMATION
- DISCUSS RANKING CRITERIA

Federal Regulations: NERR Program Goals:

The mission of the National Estuarine Research Reserve Program is the establishment and management, through Federal-state cooperation, of a national system of estuarine research reserves representative of the various regions and estuarine types in the United Sates. National Estuarine Research Reserves are established to provide opportunities for long-term research, education, and interpretation.

The goals of the program are to:

1. Ensure a stable environment for research through long-term protection of National Estuarine Research Reserve resources;

2. Address coastal management issues identified as significant through coordinated estuarine research within the System;

3. Enhance public awareness and understanding of estuarine areas and provide suitable opportunities for public education and interpretation;

4. Promote Federal, state, public, and private use of one or more Reserves within the System when such entities conduct estuarine research;

5. Conduct and coordinate estuarine research within the System, gathering and making available information necessary for improved understanding and management of estuarine areas.

[15 C.F.R. Part 921.1(b)(1-5)]

Oregon State Policy:

The management policy for the sanctuary [Reserves] shall be to:

(a) **Maintain the integrity of the estuary;**

(b) **Protect the estuary from uses and activities; both within and beyond its boundaries, which may alter or affect the ecosystem and its natural dynamic processes; and**

(c) **Preserve the area for long-term scientific and educational uses.**

[O.R.S. 273.553.1]

South Slough NERR Core Mission:

To provide opportunities for long-term estuarine research, education and interpretation, with particular emphasis on estuaries of the Columbian biogeographic region.

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION

PROJECT GOAL AND OBJECTIVES

GOAL: The project will provide the South Slough National Estuarine Research Reserve with an Implementation Plan to expand the stewardship of estuarine habitats consistent with the stewardship goals of the Reserve Management Plan.

OBJECTIVES: The Project will be conducted in a manner that involves the SSNERR Management Commission, other stakeholders, and the general public to:

1. Summarize information needed to understand the historic actions and management goals of the SSNERR

2. Describe the present ecological holdings of the SSNERR and assess the diversity of Columbian biogeographic estuarine habitats under SSNERR stewardship

3. Identify and characterize "focus areas" for possible inclusion in SSNERR stewardship

4. Prioritize "focus areas" for possible inclusion in SSNERR holdings or stewardship

5. Develop an implementation plan for realizing the acquisition of management authority over identified "focus areas."

COURTESY GROUND RULES

RESPECT THE VALUES AND VIEWS OF OTHERS

RESPECT THE RIGHTS OF OTHERS TO EXPRESS THEIR VIEWS

DO NOT INTERRUPT AND ONLY ONE PERSON SPEAK AT A TIME

WAIT TO BE CALLED ON TO SPEAK

FOCUS ON THE PROBLEM, NOT THE PERSON

LISTEN FOR UNDERSTANDING

USE AI@ STATEMENTS AND SPEAK FROM YOUR OWN EXPERIENCE

RESPECT THE AGENDA

MONITOR YOUR OWN FLOOR TIME

SSNERR WATERSHED CONSERVATION PLAN
Fishman Environmental Services
November 10, 1998

Key Project Dates

Meetings

Task 1a. Scoping and Organizational Meeting (Portland)	September 21, 1998 ☒
Task 1b. Team meeting with SSNERR staff and key stakeholders (Charleston)	October 15, 1998 ☒
Task 6b. CPAC meeting 1 (Charleston)	November 17, 1998
Task 6c. CPAC meeting 2 (Charleston)	December 15, 1998
Task 6d. Public open house (Charleston)	Week of January 18, 1999

Deliverables

Task 7. Management Plan	September 21, 1998 ☒
Task 2. Background Section of Report - Draft	December 1, 1998
Task 2. Background Section of Report - Final	January 31, 1998
Task 4c. Stewardship opportunities within Middle Pacific section	January 1, 1999
Task 6b. Focus Area ranking criteria	November 18, 1998
Task 6c. Draft ranked list of focus areas and GIS map	December 15, 1998
Task 6e. Final ranked list of focus areas and GIS map	January 31, 1998

prepared: November 10, 1998
P. Fishman

SSNERR WATERSHED CONSERVATION PLANNING SCHEDULE

Identify key stakeholder and convene Conservation Plan advisory committee	September, 1998
CPAC review estuary goals and research objectives and develop criteria for ranking potential acquisition properties and management partnership properties	October, 1998 through March, 1999
Identify grant opportunities	March and April, 1999
Facilitate Open House to review criteria and identify possible willing-seller properties	**April 6, 1999**
CPAC incorporates information from Open House into development of focus areas for potential acquisition from willing-sellers and potential management agreements	April and May, 1999
CPAC develops acquisition strategy	May and June, 1999
Facilitate at least one Open House to review focus areas and acquisition strategy	June, 1999
Write implementation plan	May and June, 1999

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

Memo

To: South Slough NERR; CPAC
From: Peter Britz, Fishman Environmental Services
Date: December 4, 1998
Subject: CPAC Meeting Information Packet

Enclosed in this packet please find:

- The Agenda for the December 15, CPAC meeting to be held from 3-6pm at the OIMB Auditorium in Charleston;
- A copy of the meeting notes from the Nomember 17th meeting;
- A draft habitat typology. *You will notice that there are several habitat types for which we still need representative photographs. If you have any photos, you would be willing to share, which you believe represent these habitats, please bring them to the meeting.*

If you are unable to make this meeting please call Mollie Hart at Fishman Environmental Services, (503) 224-0333 and let her know.

We look forward to seeing you all at the next meeting.

South Slough
National Estuarine
Research Reserve

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

DECEMBER 15, 1998 CPAC MEETING
3-6PM, OIMB Auditorium, Charleston

AGENDA

1. INTRODUCTIONS

2. ACKNOWLEDGMENT OF PREVIOUS MEETING MINUTES

3. SSNERR PROGRAMS
   - Introduction: Mike Graybill, Director
   - Research Program: Steve Rumrill, Research Coordinator
   - Education Program: Tom Gaskill, Education Coordinator
   - Stewardship Program: Craig Cornu, Stewardship Coordinator (invited)

   DISCUSSION - relationships of SSNERR programs and land holdings

4. CONSERVATION PLAN RANKING CRITERIA AND FOCUS AREAS: DISCUSSION

5. WRAP-UP AND ADJOURN

South Slough
National Estuarine
Research Reserve

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

Meeting notes from November 17th , 1998 CPAC Meeting; OIMB Auditorium, Charleston.

The newly formed Conservation Plan Advisory Committee met for the first time on November 17th, 1998, at OIMB's auditorium. The members present were:

Anne Donnelly
Mike Graybill
Margery Witmer
Steve Wickam
Craig Cornu
Ray Nolan
Rob Schab
Larry Qualman
John Brands
Dan Varoujean

Cathryn Collis of Collis & Company facilitated the meeting and reviewed the stakeholder survey results. Paul Fishman of Fishman Environmental Services presented the project scope and maps depicting the watersheds and tidal boundaries for the project.

Mike Graybill discussed the project history. He stated that the focus of the Reserve is research and education. There are 25 reserves in the country, soon to be 27, and the SSNERR was the first. When the reserve was established there was little guidance from the federal government about how to manage estuarine reserves. Today there is a much better framework. Mike further noted that the bequest leading to this project was originally $1.6 million. With interest he believe the total is closer to $2 million now. Although the bequest is earmarked for land acquisition, it makes sense to also use the money as the non-federal match required to apply for grants with federal agencies. In this manner, the group could possibly turn the $2 million into more like $6 million. Ray suggested that another place to seek grant money is the Parks and Salmon fund recently established by state initiative. The dollars earmarked for both parks and salmon restoration will have a land acquisition component.

Cathryn reported on the summary of the survey results. The group discussed the issue of community awareness of the Reserve. Anne stated that there seems to be a public perception that a significant amount of the Reserve lands were brought into the program through condemnation. This is not accurate and the group agreed that the "willing seller" aspect of the current land acquisition planning is a critical feature and that our public outreach efforts need to

seems to be a public perception that a significant amount of the Reserve lands were brought into the program through condemnation. This is not accurate and the group agreed that the "willing seller" aspect of the current land acquisition planning is a critical feature and that our public outreach efforts need to emphasize this. The group also discussed the general public perception that there is a significant loss of tax revenue when timber or other lands are put into the Reserve. This is not necessarily true. Steve pointed out that timberlands may not pay high taxes, it is the cut timber that is taxed. The group agreed that this will be a concern of the public the group will need to address.

The group then discussed the criteria they would like to use in ranking the focus areas currently being developed by the consultant team. These focus areas are based upon the habitat types outlined for estuarine reserves in the Federal Register.

The group agreed that one criterion should be research. The group also noted that the research focus should:

- Allow the Reserve to gain on what has been accomplished so far.
- Identify upland research opportunities
- Identify partnership opportunities where the Reserve does not own the land, but has some management control and research rights (it was pointed out that the selection criteria for such lands might be very different than the criteria for purchase of land)
- Provide for research opportunities in both a "green box" or base-line environment and an applied or "lived-in" environment
- Provide for research in salmon restoration.

Other ranking criteria discussed were:

- control of intact ecosystems - The group felt that when ranking focus groups we should look for opportunities to have significant control over land management in an intact ecosystem.
- education.
- potential for development of ecotourism, including the potential for hiking trails, non-motorized boating, and wildlife viewing.
- diversity of habitats.

The group noted that the location of acquisitions and/or partnerships (adjacent to the Reserve or outside the watershed) was not as important as the purpose.

The group concluded the meeting by noting that the list is incomplete.

There are other ranking criteria that will emerge after our discussion of the three major roles of the Reserve (research, education, and stewardship) scheduled for December 15th.

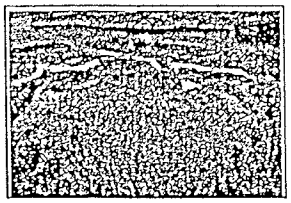
The next meeting of the group is scheduled for December 15th. The meeting will again be held in the OIMB auditorium and begin at 3:00 p.m. The group will discuss the draft landscape assessment and rank the focus areas.

Meeting notes prepared by:
Cathryn Collis

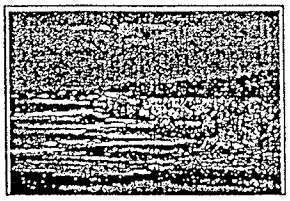
SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION

Typology of National Estuarine Research Reserves
From Federal Register, Vol. 58, No. 134

Shorelands:



Maritime forest
This ecosystem has "developed under the influence of salt spray. It can be found on coastal uplands or recent features such as barrier islands and beaches.



Coastal cliffs ✦
"This ecosystem is an important nesting site for many sea and shore birds. It consists of communities of herbaceous, graminoid, or low woody plants (shrubs, heath, etc.) On the top of or along rocky faces exposed to salt spray. There is a diversity of plant species including mosses, lichens, liverworts, and "higher" plant representatives."

Photo to be added

Coastal shrubland ✦
"This is a transitional area between the coastal grasslands and woodlands and is characterized by woody species with multiple stems and a few centimeters to several meters above the ground developing under the influence of salt spray and occasional sand burial. This includes thickets, scrub, scrub savanna, scrub heathlands, and coastal chaparral. There is a great variety of shrubland vegetation exhibiting regional specificity..."

Photo to be added

Coastal grassland ✦
"This area, which possesses sand dunes and coastal flats, has low rainfall (10 to 30 inches per year) and large amounts of humus in the soil. Ecological succession is slow, resulting in the presence of a number of seral stages of community development. Dominant vegetation includes mid-grasses (5 to 8 feet tall), such as *Spartina* and trees such as willow (*Salix sp.*), cherry (*Prunus sp.*), and cottonwood (*Populus deltoides*)..."

Transition Areas:

Coastal marshes
"These are wetland areas dominated by grasses, sedges, rushes, and other graminoid species and is subject to periodic flooding by either salt or freshwater. This ecosystem may be subdivided into: (a) tidal, which is periodically flooded by either salt or brackish water; (b) nontidal (freshwater); or (c) tidal freshwater. These are essential habitats for many important estuarine species of fish and invertebrates as well as shorebirds and waterfowl and serve important roles in shore stabilization, flood control, water purification, and nutrient transport and storage."

Photo to be added

Intertidal beaches ✦
"This ecosystem has a distinct biota of microscopic animals, bacteria, and unicellular algae along with macroscopic crustaceans, mollusks, and worms with a detritus-based nutrient cycle. This area also includes the driftline communities found at high tide levels on the beach. The dominant organisms in this ecosystem include crustaceans such as the coquina (*Donax*) and surf clams (*Spisula* and *Mactra*).

Photo to be added

Intertidal mud and sand flats
"These areas are composed of unconsolidated, high organic content sediments that function as a short term storage area for nutrients and organic carbons. Macrophytes are nearly absent in this ecosystem, although it may be heavily colonized by benthic diatoms, dinoflagellates, filamentous blue-green algae, and chemosynthetic purple sulfur bacteria. This system may support a considerable population of gastropods, bivalves, and polychaetes, and may serve as a feeding area for a variety of fish and wading birds..."

Intertidal algal beds
"These are hard substrates along the marine edge that are dominated by macroscopic algae, . . . but also unicellular or filamentous in growth form. This includes the rocky coast tidal pools that fall within the intertidal zone. Dominant fauna of these areas are barnacles, mussels, periwinkles, anemones, and chitons..."

Submerged Bottoms:

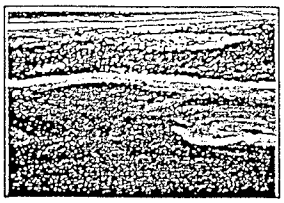
Photo to be added

Subtidal hardbottoms ✦
"The system is characterized by a consolidated layer of solid rock or large pieces of rock (neither of biotic origin) and is found in association with geomorphological features such as submarine canyons and fjords and is usually covered with assemblages of sponges, sea fans, bivalves, hard corals, tunicates, and other attached organisms. A significant feature of estuaries in many parts of the world is the oyster reef, a type of subtidal hardbottom. Composed of assemblages of organisms (usually bivalves), it is usually found near an estuary's mouth in a zone of moderate wave action, salt content, and turbidity. If light levels are sufficient, a covering of microscopic and attached macroscopic algae, such as kelp, may also be found."

Photo to be added

Subtidal soft bottoms

"Major characteristics of this ecosystem are an unconsolidated layer of fine particle soft silt, sand, clay, and gravel, high hydrogen sulfide levels, and anaerobic conditions existing below the surface. Macrophytes are either sparse or absent, although a layer of benthic microalgae may be present if light levels are sufficient. The faunal community is dominated by diverse populations of deposit feeders including polychaetes, bivalves, and burrowing crustaceans."



Subtidal plants

"This system is found in relatively shallow water (less than 8 to 10 meters) below mean low tide. It is an area of extremely high primary production that provides food and refuge for a diversity of faunal groups, especially juvenile and adult fish, and in some regions, manatees and sea turtles. Along the North Atlantic and Pacific coasts, the seagrass *Zostera marina* predominates..."

✦ = un - or inadequately represented in SSNERR

GLOSSARY

Anaerobic - The condition of complete or nearly complete absence of oxygen

Benthic - Portion of the marine environment inhabited by marine organisms that live permanently in or on the bottom

Bivalves - A subgroup of mollusks which have two shells hinged together (i.e. clams, mussels, oysters)

Chemosynthetic - The synthesis of organic (carbon containing) compounds from inorganic compound using energy derived from chemical reactions

Crustaceans - A group of organisms characterized by having a body covered by a hard shell or crust (i.e. barnacles, crabs, shrimp, lobsters)

Detritus - Decaying organic material

Diatoms - One of the most abundant groups of microscopic organisms living in the sea and the most important food source for marine mammals

Dinoflagellates - A group of microscopic organisms living in the sea

Gastropods - A subgroup of mollusks typically having a distinct head with eyes and tentacles and whose body is covered by a spiral shell (i.e. snails, slugs, limpets)

Graminoid - A grass-like plant

Herbaceous - A plant lacking a woody stem, distinct from shrubs and trees

Macrophytes - A group of macroscopic photosynthetic organisms (i.e. plants, algae) which grow in water

Mollusks - A group of soft-bodied animals, most of which are protected by a calcareous shell (i.e. snails, squid, octopus)

Polychaetes - A group of worm-like organisms living in the sea

Primary production - The growth of plants and storage of energy through the process of photosynthesis

Seral stages - A series of stages in the natural development of a plant community whereby one community is gradually replaced by another over time

Tunicates - A group of marine organisms with a characteristic cuticular outer covering of the body (i.e. sea squirts)

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

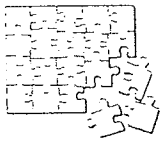
TO: CPAC Members and Interested Persons
FROM: Paul Fishman, Consultant Team Project Manager
SUBJECT: Next Two Meeting Dates: February 23 and March 9

January 27, 1999

Hello SSNERR CPAC members. We need to have two more meetings to complete project Phase 1, Landscape Analysis, and launch us into Phase 2, Implementation Plan. This memo is a "heads up" so you can put the meeting dates and times on your schedules, and also watch for a package of information from us.

CPAC Meeting #3

FEBRUARY 23, 1999. TUESDAY. 3-6PM.
LOCATION TO BE ANNOUNCED (Coos Bay or North Bend)



The focus of this meeting will be to: 1) update you on project status; 2) review and work on our recommended Focus Area Ranking Criteria and identified Focus Areas; 3) plan the March 9 Project Open House.

Project Open House Meeting

MARCH 9, 1999. TUESDAY. Evening.
Location to be announced.

The intent of this meeting will be to provide information to the public about the project, and provide an opportunity for the public to give us their ideas.

Please let me know if you have any suggestions for meeting locations for the February 23 or March 9 meetings; we are looking for a location more central and with better parking than OIMB.

We will mail a package of information to CPAC members next week for your review prior to the CPAC meeting. It will contain, at a minimum: a project review summary; the meeting agenda; Focus Area Ranking Criteria sheet; preliminary Focus Area map and map notes; and preliminary information about the Open House.

Distribution list on reverse.

South Slough
National Estuarine
Research Reserve

CPAC Members:
John Brands
Ann Donnelly
Tom Green
Bob Laporte
Andy Nasburg
Ray Nolan
Bev Owen
Bob Polasky
Larry Qualman
Alan Rumbaugh
Rob Schab
Greg Stevens
Nora Terwilliger
Dan Varoujean
Steve Wickham
Marjery Witmer

SSNERR Staff:
Mike Graybill
Craig Cornu

Consultant Team:
Paul Fishman
Peter Britz
Cathryn Collis
Nancy Chase
Clay Moorhead
Larry Ofner

Interested Persons:
Steve Akehurst
Pete DeMani
Donald Kelly
Ken Messerle
Dan Newton
Floyd Page
Arnie Roblan
Scott Starkey
Steve Westbrook
Patty Whereat

PROJECT TEAM CONTACT: Paul Fishman, Fishman Environmental Services
Phone: 503/224-0333
Fax: 503/224-1851
Email: pfishman@fishenserv.com

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South Slough
National Estuarine
Research Reserve

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

February 16, 1999

TO: CPAC Members
FROM: Paul Fishman and Cathryn Collis
SUBJECT: Review and Background Materials for February 23 Meeting

The following CPAC members have responded that they will be attending the meeting next Tuesday: Ann Donnelly, Bev Owen, Larry Qualman, Rob Schab, Greg Stevens, Steve Wickham, Marjery Witmer.

The following CPAC members have responded that they will not be able to attend: Tom Green, Nora Terwilliger.

If you have not responded, please call Paul's office ASAP (503-224-0333); thank you.

Included with this memo are the following items for your review:

⊠ Meeting agenda for the February 23 CPAC meeting (1 page).
ACTION: review the agenda, note any additional items for discussion

⊠ A summary of the project process to date (1 page).
ACTION: review, as needed.

⊠ "SSNERR Focus Area Ranking Criteria" (1 page).
This is a distillation of the numerous criteria gleaned from the first two CPAC meetings, interviews with project stakeholders, and discussions with SSNERR staff. This is still a DRAFT document open for discussion.
ACTION: review and make notes for discussion.

⊠ Color copies of map portions (3 - 11x17 inch pages)
We have produced a large color map coded to show candidate Focus Areas that have been suggested by CPAC members, stakeholders and SSNERR staff. Each proposed Focus Area is coded with one or more color and a number. We will bring the large complete map to the meeting for review and comment.
ACTION: review and note any comments/questions.

⊠ A Key to the above map (3 pages)
The Map Key indicates which goal(s) are met by each site, and includes notes for many of the sites.
ACTION: review and note any comments/questions.

⊠ Open House Planning sheet (1 page).
This is a discussion guide for the Open House planning agenda item.
ACTION: review

⊠ An updated CPAC member list (2 pages).
ACTION: review and note any corrections.

South Slough
National Estuarine
Research Reserve

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SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

SSNERR
Conservation Plan Advisory Committee Meeting

February 23, 1999
3:00 pm to 6:00 pm
North Bend Water Board
Conference Room
2305 Ocean Blvd
Coos Bay, Oregon

A G E N D A

Introductions

Review of Agenda

Summary of Process to Date

Review and Discussion of Ranking Criteria

Review and Discussion of Focus Area Map

Plan March 9th Open House

Review of Phase II

Adjourn

South Slough
National Estuarine
Research Reserve

SSNERR COOPERATIVE PLAN FOR WATERSHED CONSERVATION
CONSERVATION PLAN ADVISORY COMMITTEE

SSNERR
Conservation Plan Advisory Committee Meeting
Open House Planning Discussion

Open House Goal:

Inform and interact with the larger community regarding the SSNERR and the Conservation Planning Project. Get feedback regarding ranking criteria and focus areas.

Questions for consideration:

Who is the target audience?

How best do we notice them for the meeting?

What tools does the CPAC need to inform the community about the project?

How should the Open House be structured?

Do you want to formally question or poll the community participants?
(a "thoughts" sheet under the focus area map or a post card)

Do you want to have any formal "speeches"?

Open House: March 9, 1999
6:00 - 8:00 p.m.
North Bend Library
1800 Sherman Avenue

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South Slough
National Estuarine
Research Reserve

DAILY DIGEST

MEMBERS OF THE ORDER OF RUNEBURG will hold their annual Easter potluck at their next meeting at 6:30 p.m. Thursday. Those attending should bring a dish that starts with the initial of their last name. The meeting will be held at 7:30 p.m. followed by the annual ham bingo. Meetings are held at the North Bayside Grange Hall in Glasgow and guests are welcome.

MYRTLE POINT LIONS 58TH ANNUAL EASTER EGG HUNT will be at 1 p.m. on Easter Sunday at Rotary Park, located on Harris and Railroad streets in Myrtle Point. The Lions will use 120 dozen eggs for the hunt.

'ONE VOICE,' a dramatic Easter musical, will be presented at 7 p.m. Friday and Saturday and at 10:30 a.m. on Easter Sunday at Bay Area Church of the Nazarene, 1850 Clark St., North Bend. Everyone is invited to see the Easter story shown in a uniquely different light. Minister of Music Todd Inman will direct this impressive musical stage drama with 45 cast members. Child care will be available.

WAL-MART'S ANNUAL EASTER EGG HUNT, with more than 2100 eggs, will be held Saturday. Some eggs also include prizes. The first hunt, for children ages 1 to 3, will begin at 11 a.m. Children 4 to 6 get their chance at 11:30 and 7 to 10 year olds play cleanup at noon. For more information call 888-5488.

FAITH LUTHERAN CHURCH, 1741 Sherman, North Bend, will hold its annual Community Easter Dinner from 12:30 to 2:30 p.m. Sunday. The free event is open to the public and will be held in the social hall downstairs. For more information call 756-4035.

COOS ASSOCIATION OF DEPUTY SHERIFFS proudly presents in concert gospel legends The Blind Boys of Alabama with special guest Walker T. Ryan. The concert will be held at 7:30 p.m. Wednesday, April 7, in the auditorium at Marshfield High School, 10th and Ingersoll, Coos Bay. Tickets are $15 for adults and children under 12 are admitted free. Tickets available at OIT the Record, 2227B Newmark, North Bend, 751-0301. Nonprofit organizations and churches can call 267-7326.

TICKETS ARE ON SALE for the Waterfront Players Repertory Company presentation of its new play "A Gathering of Finches," by William Sipes, in collaboration with Jane Kirkpatrick and Judy Kalbrin. Seat selection and cash or check ticket purchases can be made at House of Books in Pony Village Mall, North Bend. The play opens Friday, April 9, and continues at 7 p.m. Fridays and Saturdays and 4 p.m. Sundays through May 9. Those interested in group sales and credit card sales can call the playhouse at 751-0708.

OUT & ABOUT

South Slough Reserve seeks input on expansion

The South Slough Reserve and a local advisory committee working with reserve staff invite the community to an open house from 5:30 to 7:30 p.m. on Tuesday, April 6, at the North Bend Public Library. The open house will help the reserve decide how to spend an anticipated $8 million triggered by a $1.6 million bequest from the late Chalmer Gustafson.

Under the terms of Gustafson's extraordinary gift, the bequest must be used to add lands to the reserve. The reserve has asked for the community's help in deciding how best to comply with Gustafson's wishes, ensuring that community perspectives are included as it considers what kinds of lands or easements to "shop" for, and where. The reserve intends only to work with willing sellers and seeks help in locating landowners interested in possible transactions.

A 16-member advisory committee made up of local business, government and community representatives is advising the reserve on how best to:

- Identify lands best suited for willing-seller transactions;
- Identify lands best suited for management partnerships; and
- Increase available funds through grants or matching funds.

The open house will be a chance for members of the local community to view the advisory committee's recommended criteria, ask questions, offer suggestions and comments and otherwise help guide the process.

At least one guideline is firmly in place: No condemnation. All existing reserve lands were purchased from landowners willing to sell. The South Slough Reserve Management Commission wishes to continue that long-standing policy of acquiring land rights only on a voluntary basis.

Chalmer Gustafson, a district engineer for the Bureau of Land Management, lived modestly in Coos Bay, working, hunting and enjoying the outdoors. His sure financial status, and his extraordinary generosity, became apparent only upon his death in 1994, when Gustafson named the South Slough National Estuarine Research Reserve as sole beneficiary of his $1.6 million estate.

The South Slough Reserve invites the community to stop by the North Bend library between 5:30 and 7:30 p.m. to get information and give the reserve your comments. There will be a brief project interview presentation at 6 p.m.

For more information call the South Slough Reserve at 888-5558.

WHAT'S AHEAD

Community members to attend planning meeting

There will be a community planning meeting for residents/property owners in Bay Park, Bunker Hill and Millington at 7:00 p.m. on Friday in the Bunker Hill School gym. Everyone is urged to attend this session and bring your ideas of what we want our area to look like. For more information, those interested can call Muriel Braitland at 267-2396.

Job descrimination topic of next PFLAG meeting

The local chapter of PFLAG will hold its regular meeting at 7:30 p.m. on Tuesday, April 6, at the First [illegible] is welcome to join us and learn about our mission of support, education and advocacy. For more information, those interested can call Myrna Dawson at (541) 347-9109.

Southwestern teaches how you fit in your genes

If you always had an interest in tracing your family lineage, or learning more about your family history, then this class will get you started. You will learn how to do the initial research, what documents are used and how to record the information.

The class will be held on Thursdays, April 1 through April 29 from 9 a.m. to 12 p.m. in Stensland Hall, [illegible] on the Southwestern Ore-

Bandon considers holding Toastmasters meetings

There is an organizational meeting on at 5 p.m. April 6 at Bandon Boatworks to bring Toastmasters International to Bandon. Toastmasters is dedicated to providing a non-threatening atmosphere for people to learn how to speak before others. It provides an environment to comfortably overcome the greatest fear of most people — public speaking. Meetings are usually held each week for one hour in a highly structured format, it is not a social meeting but members do become friends you can depend on.

Bandon has an offer to pick up a chartered club that has been in existence for 36 years in North Bend. This means we do not have to have

formation or to register, call Southwestern Oregon Community College, Office of Outreach and Professional Development at 888-7415.

Red Cross offers courses in Coos, Curry counties

The South Coast Chapter of the American Red Cross will offer an instructor course for adult CPR, infant/child CPR and first aid. Classes will be from 5 to 9 p.m. on April 5, 6, 8 and 9 for the Coos County area. Also for the Curry County region, there will be classes held on April 24 and May 1 at Curry General Hospital in Gold Beach. Classes in Gold Beach start at 9 a.m.

All prospective instructors must be currently certified in Community First Aid and Safety prior to taking

The World

Greg Stevens, Publisher

OPINION

EDITORIAL

Reserve needs help to acquire more land

It was an extraordinary bequest.

Chalmer Gustafson, a district engineer for the Bureau of Land Management, was a Coos Bay resident who enjoyed his job. A hunter and fisherman, he also loved the outdoors.

That appreciation for the South Coast environment was manifested in an unexpected act of generosity following his death in 1994. Gustafson named the South Slough National Estuarine Research Reserve the sole beneficiary of his $1.6 million estate.

■ **Open house:** From 5:30 to 7:30 p.m. on Tuesday, North Bend Public Library

Under the terms of Gustafson's will, the money must be used to add lands to the reserve. To plan those acquisitions, the South Slough Reserve and its advisory committee want help from the public. An open house is scheduled tomorrow evening to get recommendations from area residents on how to spend Gustafson's bequest.

The reserve has one firm guideline: No lands will be acquired through condemnation. They'll only work with willing sellers.

Advisory committee members and South Slough Reserve officials will be on hand tomorrow. They're counting on the community to help them make wise decisions on how to put this amazingly generous gift to best use.

QUOTES IN THE NEWS

"We have a relatively short window of time when work can be done expeditiously. It is our intention and hope this stern will be gone this year." — Steve Greenwood, Western Region director, Oregon Department of Environmental Quality, about plans to remove the stern of the New Carissa from the sand near Horsfall Beach.

"I know that we can still get a few more students back. We can always improve." — Principal Kenny Kent, Bandon High School, on the school's efforts to curb dropouts.

"They said the weather was coming up and effectively, run for cover." — Bob Pedro, owner of the fishing boat Miss Linda, that participated in the effort to tow the New Carissa bow to sea for scuttling.

IN OTHER VOICES

Challenge for business: Help people, help business

Obsessing on

■ **Slogans, mottoes:** It requires plenty of time, discussion to come up with some of these.

BY IAN SHOALES

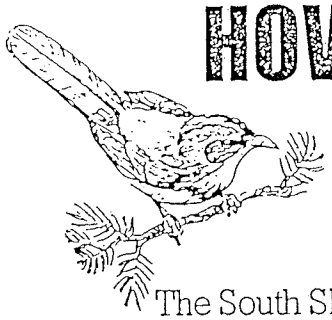
The state of Alabama, in another victory for state's rights, has forbidden the sale and distribution of vibrators. Following the example of Texas and Georgia, which have similar bans, Alabama is doing its part in the ongoing culture wars, using the full force of law to discourage inappropriate oscillation.

It is curious, though. I looked up Alabama's state motto. It is, "Audemus jura nostra defendere," or "We dare defend our rights." I guess those rights don't include the over stimulation of certain body parts. Georgia's motto, on the other hand, is "Wisdom, justice, and moderation," so its stance against immoderate devices makes a little sense. But Texas' motto is just "Friendship," which doesn't tell us much one way or another. Many women consider a vibrator to be their best friend. But since vibrators are generally employed in solitude, they don't really advance the cause of friendship as i struct.

Why do states have m why? And what's the d tween a state's motto a slogan that appears o plate? I know that Okla self "OK" on its plates. a little over-modest to Oklahoma I'd call myse cellent!" but that's just lahoma's official motto conquers all things," an me as a bald-faced lie. shire's famous motto (. gan) is "Live free or di real neighborly greetin thing you'd say to the p a piece of pie, but it point across, I guess.

It's not just mottos against personal appli seas states. States have songs, beverages and Dakota's state dance dance. Arizona's offic is the string tie. Star spend long hours dec object to make their which to leave alone solved that ketchup is ment!" shouts Rhode nominate the hamme tool!" says Montana.

Pu



HOW WOULD YOU SPEND $8 MILLION?

The South Slough Reserve Conservation Plan Advisory Committee invites you to an Open House:

April 6, 1999 - 5:30-7:30 PM, at the North Bend Library

to help the Reserve decide how to spend an anticipated $8 million triggered by a $1.6 million bequest from the late Chalmer Gustafson who left his estate to the Reserve specifically to buy land.

The Reserve is asking for the community's help in deciding how best to comply with Mr. Gustafson's wishes, ensuring that community perspectives are included as it considers what kinds of lands or easements to "shop" for, and where. The Reserve intends to work with willing sellers only and seeks help in locating landowners interested in possible transactions.

The 16-member South Slough Reserve Conservation Plan Advisory Committee, made up of local business, government and community representatives is advising the Reserve on how to:

- Identify lands best suited for willing-seller transactions
- Identify lands best suited for management partnerships
- Increase available funds through grants or matching funds

Please stop by the North Bend Library anytime between 5:30 and 7:30 PM to get information and give us your comments. There will be a brief project overview presentation at 6 PM.

For more information please call the South Slough Reserve at (541) 888-5558.

South Slough
National Estuarine
Research Reserve

SSNERR/CPAC OPEN HOUSE OUTLINE

Presentation:

I. Introduction – Cathryn Collis
   A. Introduce self, South Slough staff and CPAC members
   B. Briefly outline project, where we are in the process, opportunities for input from the community throughout the balance of the process
      1. Selected by a team, the make-up of which is similar to the CPAC.
      2. Collaborative Planning approach with guidance from CPAC
      3. Met several times to develop the draft criteria that will be used to rank lands for acquisition and for management partnerships
      4. Much of the project work will be to identify ways to increase the funds available through grants or matching funds
      5. After tonight, the CPAC will take your feedback and begin to identify specific lands that meet the criteria and build an acquisition and management strategy
      6. There will be a future open house to review that strategy, likely in May
   C. Introduce Commissioner Bev Owen

II. Commissioner Owen discusses the CPAC and what the group is trying to accomplish.

III. Collis introduces Mike Graybill

IV. Mike briefly tells the account of Chalmer Gustafson and the bequest. Focuses on the previous management planning that identified the need that the bequest will allow SSNERR to address

Commissioner Bev Owen Presentation
Conservation Plan Advisory Committee Open House

April 6, North Bend Library 5:30-7:30 PM

- Before beginning any property acquisition planning, the South Slough Reserve asked the local community for help. The Conservation Plan Advisory Committee was formed in the fall of 1998 to guide the Reserve through its acquisition planning process.
- The Conservation Plan Advisory Committee's goal is to ensure that community perspectives are included as the Reserve considers what kinds of lands or easements to "shop" for, and where.
- The 16-member Conservation Plan Advisory Committee is made up of local business, government and community representatives that are advising the Reserve on :
    - What types of lands should the Reserve buy (from willing-sellers only)?
    - What types of lands should the Reserve cooperatively manage with other public entities?
- While representatives on the committee hold a wide array of beliefs about the role of the Reserve in the community, all committee members agree that the South Slough Reserve is an important asset to the community; for its recreational value for local residents, its potential to promote ecotourism and related economic benefits, and for the work the staff does on issues important to the local community including salmon research.
- Some of the important points that came up in committee meetings were:
    - The committee and the Reserve are firm about working with willing sellers only: there will be NO PROPERTY CONDEMNATION in any part of the Reserve's property acquisition process. (All existing Reserve lands were purchased from landowners willing to sell. The Reserve wishes to continue that long-standing policy of acquiring land rights only on a voluntary basis.)
    - The Reserve would like to preserve both culturally and biologically important sites
    - The Reserve would like to enhance its ability to conduct research on fisheries and shellfish, including salmon population and habitat research.

- The Reserve would like to own and share the operation of a working ranch to conduct research into "fish-friendly" techniques for economically viable ranching.
- The Reserve is interested being a part of sustainable economic development for the local community.

- To provide additional support for the recreational and informational services that the Reserve provides to the community, the committee has developed a "shopping list" of the types of properties the Reserve should look for. The committee is asking the community to comment on, and add to this shopping list at this Open House.

LANDSCAPE ATTRIBUTES "SHOPPING LIST"

South Slough is interested in talking people whose property meets any of the following descriptions:

What: Headwaters of South Slough Drainages

Why: ☑ Enables comparative study of watershed management techniques.

☑ Maintains water quality for the South Slough estuary.

What: Tidal Shorelands in the South Slough Estuary

Why: ☑ Maintains water quality for the South Slough estuary.

What: Mineral/Water Rights for Lands Within the Current Reserve Boundary

Why: ☑ Unifies Reserve ownership rights.

What: Shoreline Access Points

Why: ☑ Maintains access to bay and estuary for Reserve educational tours and research activities.

What: Coastal Cliffs, Coastal Shrubland, Coastal Grassland, Intertidal Beaches, Subtidal Hardbottoms

Why: ☑ Allows Reserve to meet its obligations for research and education in federally designated habitats.

What: Coastal Uplands (with or without timber)

Why: ☑ Provides increased opportunities for testing various forest management techniques.

What: Developed Shoreline Environments

Why: ☑ Integrates Reserve services with local economic development, including ecotourism.

What: Areas That Ensure Conservation of Aesthetically and Culturally Important Sites, Views and Sounds

Why: ☑ Maintains the quality of natural and historic landscapes for educational and interpretive activities, community enjoyment and ecotourism.

APPENDIX M: GEOGRAPHIC INFORMATION SYSTEM (GIS) PROJECT SOURCE DATA SUMMARIES AND DATA DICTIONARIES

Source Data Summary and Data Dictionary for Biogeographic Region Opportunities GIS
Fishman Environmental Services, 503-2224-0333, 7/99

Source Data Summary

The Biogeographic Opportunities GIS is a spatial database complement to the Biogeographic Region Opportunities Matrix. It inventories over 140 protected natural areas containing estuaries and other coastal habitats from Cape Mendocino to the Columbia River. Protected natural areas include lands managed primarily for research, rare or endangered species conservation, or habitat conservation. In some cases this includes sites that are also managed for limited access recreation. The GIS also includes undeveloped lands owned by local city and county park departments. Finally, a few special management areas, such as the Yurak Indian Reservation, are not legally protected but contain estuarine habitats managed primarily for resource values. These sites were included because they represent significant opportunities for research, stewardship, or education. See the Biographical Region Opportunities Matrix and associated appendices for additional information.

The Biogeographic Region Opportunities GIS was produced by merging available polygon coverages delineating ownership and management designation of protected natural areas. All spatial data were re-projected to Oregon Lambert, NAD83, GRS1980 (feet). For more information on the Oregon Lambert Projection see: http://www.ssegis.state.or.us/coord/project/gpl.html. Areas and boundaries are *approximate* and *accuracy varies* depending on the age, scale, and detail of the sources coverage. Boundaries in no way represent exact legal property delineations.

Some boundaries were adjusted when coverages of different ages and accuracies resulted in polygon overlap. In the case of Coxe Island Preserve, Bull Island, Smith Island, Oregon Islands NWR, Three Arches Rock NWR Nestucca Bay NWR, Siletz Bay NWR, and Bandon Marsh NWR boundares were generated from a NOAA shoreline layer and corroborated with hard copy ownership and topographical maps. Many boundaries for state and local parks were taken from the Western Oregon Forest Ownership layer ("worfrst") available through the State Service Center for GIS. The "parks.shp" coverage from the Environmental Systems Research Institute, Inc (ESRI). Data & Maps 1998 CD of the Western United States also provided some state and local park boundaries.[1] Other federal and state natural area boundaries were obtained directly from agency GIS personnel. Table 1, below, lists all the sources of digital spatial boundaries, the filenames, the managing agency/organization, and the contact person who provided the spatial data. For sites where digital boundaries were unavailable(approximately 1/5th of all sites), a tree-shaped locator polygon was placed at the site's approximate location. This locator is meant to serve as a placeholder so the user can query information from the GIS attribute table.

Acreage figures for the protected areas were established from personal communication with the land or natural resource managers and in some cases are approximations; they are not derived from the polygon area field.

Habitat information is based on conversations with natural resource or land management professionals responsible for the protected area. The collection of this habitat information involved no systematic field investigation although we attempted, in our interviews of managers, to key protected area habitats to a habitat typology system developed by NOAA for the National Estuarine Research Reserve program. Coastal land/natural resource managers were asked "yes or no" whether a particular habitat type was present. In cases where managers were unsure or had no information, the field is left blank.

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[1] According to the ESRI metadata the source of this parks coverage is the Dynamap 2000 v7.3 produced by Geographic Data Technology.

Data Dictionary

Field	Description
Shape	Polygons
Area	Area of polygons in square feet generated by Acrview.
Perimeter	Perimeter in feet
Number	Unique identifier number of protected area
Name	Name of protected area
Acres_Apprx	Number of acres of protected area according to responsible natural resource manager.
Org/Agency	Managing organization or agency.
Contact	Name and title of natural resource manager responsible for the protected area.
Phone	Phone number of natural resource manager.
Email	Email of natural resource manager, if available.
Mfw	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of maritime forest-woodlands.
Cs	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of coast shrublands.
Cg	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of coastal grasslands.
CC	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of coastal cliffs.
Cm	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of coastal marshes.
Csw	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of coastal swamps.
Imsf	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of intertidal mud and sand flats.
Ib	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of intertidal beaches.
Iab	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of intertidal algal beds.
Shb	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of subtidal hard bottoms.
Ssb	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of subtidal soft bottoms.
Sp	Known presence ("Y"), known absence ("N"), or indeterminate presence (blank) of subtidal plants.
Comments	Comments qualifying ownership, acreages, location, contacts, and/or habitat information.

South Slough National Estuarine Research Reserve
Geographic Information System Themes

The GIS information collected and created for the South Slough NERR follows with a brief description in the table below. This information has been compiled onto a CD-ROM for the Reserve and also delivered to Ecotrust who is putting this information into a GIS they are creating. These data themes listed below will be formatted into an ArcView project and delivered to the South Slough staff at the completion of this project.

Name	Source	Projection	Comment
SSWSHD.SHP	FES	OR Lambert	Produced using the USGS DRGS to determine the South Slough Subbasins
SUBWS.SHP	FES	OR Lambert	Produced using the USGS DRGS to determine the South Slough Watershed Boundary
RSVWSHD.SHP	FES	OR Lambert	SSNERR watershed boundary

STREAMS.SHP	DEMIS/FES	OR Lambert	FES modified the DEMIS streams layer adding several streams which were left of the original. Steams added were heads up digitized using USGS-DRG's
SSNERR.SHP	FES	OR Lambert	South Slough Reserve Administrative Boundary
RVRTCONTOURLAM.SHP	FES Derived	OR Lambert	Riverton 7.5min. USGS Quad 40 foot Contours created from MapTech Software from USGS© DEM's. TIN and contours generated in AUTOCAD.
RIV5FTCONTOURLAM.SHP	FES Derived	OR Lambert	Riverton 7.5min. USGS Quad 5 foot Contours created from SSCGIS DEM. TIN and contours generated in AUTOCAD.
CHSTCONTORLAM.SHP	FES Derived	OR Lambert	Charleston 7.5min. USGS Quad 40 foot Contours created from MapTech Software from USGS© DEM's. TIN and contours generated in AUTOCAD.

CHAR5FTORLAM_5.SHP	FES Derived	OR Lambert	Charleston 7.5min. USGS Quad 5 foot Contours created from SSCGIS DEM. TIN and contours generated in AUTOCAD.
APPROXOWNER.SHP	FES/SSNERR	OR Lambert	Approximate ownership layer of the South Slough Watershed area. This map is approximate only. Handrawn map was turned into a GIS layer using the TRS map to reference the taxlot locations.
COONAP.IMG	National Aerial Photography Program Georeferenced by Coquille Tribe	OR Lambert	Aerial photo mosaic for most of Coos Bay Estuary. This covers the South Slough Estuary but not all of the watershed area for South Slough. The accuracy is better around the Coquille Tribal lands because the control was added around this area. If more control were added near SSNERR then the photo would improve in accuracy. This photo is georeferenced but not orthogonally corrected

PRIORITY_SITES_2.SHP	FES	OR Lambert	PRIORITY TIERS FOR CONSERVATION/AQUISTION created using watershed boundaries.
ZIPPEDDRGS.ZIP	USGS	OR Lambert	7.5 minute quad Digital Raster Graphis projected and provided by Oregon Department of Forestery for Coos Bay Watershed.

G:\1998\98091\FinalReport\gis_info.wpd

Table 1 Source data of digital spatial boundaries for the Biogeographic Region Opportunities GIS

Agency/Organization	# Sites	Contact for Source Boundary Coverage	Source Coverage Filename	Projection, Datum/Zone, Spheriod, Scale
BLM - California (Arcata Resource Area)	1	John Price, 707-825-2300, John_Price@ca.blm.gov	"ownpcablm"	Customized projection: Transverse, NAD83, GRS1980
Yurak Tribe Reservation	1	no digital boundary available		
Coquille Indian Tribe	1	Mark Healy, 541-756-0904		Imported from CAD files
California Department of Fish & Game	10	Greg Goldsmith (NFWS), 707-822-7201, greg_goldsmith@fws.gov or Sharon Taylor staylor@gishost.dfg.ca.gov	"cdfg"	UTM, Zone 10/NAD27, Clark 1866
California State Parks	10	ESRI Data & Maps 1998 Greg Goldsmith (NFWS), 707-822-7201, greg_goldsmith@fws.gov	"parks.shp" "calown"	decimal degrees UTM, Zone 10, Clark 1866
City of Arcata	2	Judy Wartella, Judy_Wartella@nps.gov	"jacoby" "commfor"	State Plane State Plane
Clatsop County Parks	2	no digital boundary available		
Coos County Parks	3	no digital boundary available		
Division of State Lands/NOAA	4	Ecotrust, Michele Daily, 503-226-8108, michele@ecotrust.org Steve Rohmann NOAA, 301-713-3000	"ssnerr.shp" "shore.shp"	Oregon Lambert Oregon Lambert (From DEMIS CD) , ~ 1:80,000
Humboldt County Parks	1	no digital boundary available		
Lincoln County Parks Department	2	no digital boundary available		
National Park Service	2	David Best, 707-464-6101x5448, david_best@nps.gov Oregon State GIS Service Center, http://www.sscgis.state.or.us/	"owner_utm" "worfrst.shp"	UTM, Zone 10, Clark 1866 Oregon Lambert
Nature Conservancy of Oregon	6	John Hawk, 503-230-1221 NOAA Oregon State GIS Service Center, http://www.sscgis.state.or.us/	"shore.shp" "Manage.shp"	Oregon Lambert Oregon Lambert
North Coast Land Conservancy	1 4	John Graves, 503-338-6749	"nclc.shp"	UTM, Zone 10, Clark 1866
Oregon Department of Fish and Wildlife	4	no digital boundary available		
Oregon Department of Transportation	1	Oregon State GIS Service Center, http://www.sscgis.state.or.us/	"worfrst.shp"	Oregon Lambert
Oregon State Parks	62	ESRI Data & Maps 1998 Oregon State GIS Service Center, http://www.sscgis.state.or.us/	"parks.shp" "worfrst.shp"	decimal degrees Oregon Lambert
BLM - Oregon	4	Lisa Blackburn, 503-952-6276	"h442124recp3","h442123recp3", "f144124xecp3","c443124xecp3", "c343124xecp3", "a443124recp3", "a144124recp3"	UTM, Zone 10, Clark 1866.
Siuslaw National Forest	8	Diana Rainsford, 541-750-7000, http://www.fs.fed.us/r6/siuslaw/gis_data.htm	"Siuslawplans"	UTM, Zone 10/NAD27, Clark 1866
Tillamook County Parks	3	no digital boundary available		
U.S. Fish & Wildlife Service(Oregon)	8	Ron Bitel and Dave Drescher, 503-231-6848	"r1_fwsbnd"	Lambert, NAD83, GRS1980 (meters)
U.S. Fish & Wildlife Service(California)	2	Greg Goldsmith, 707-822-7201, greg_goldsmith@fws.gov	"r1_fwsbnd"	Lambert, NAD83, GRS1980 (meters)
Wetlands Conservancy	5	no digital boundary available		

APPENDIX N: SSNERR PROPERTY PARCEL PRINTOUT

(1)

Intended For: FILE
Author: Greg Willnow
Subject: SSNERR properties

This Item is In Progress

ARB#

Legal Description	Acres	Date of Transaction	Type of Transaction	From/To Whom	
T.26S.-R.13W. Sec.19 PARCEL 1 Lots 3 & 4, SE1/4, E1/2SW1/4	318	Sept. 7, 1976	Special Warranty Deed (Exhibit A) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(1)
N1/2SE1/4	79.5	Dec. 12, 1984	Deed-Bk.60 P.310	SSNERR to State Land Board	(2)
T.26S.-R.13W. Sec.20 PARCEL 2 SW1/4	160	Sept. 7, 1976	Special Warranty Deed (Exhibit A) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(3)
SW1/4	152.3	Dec. 12, 1984	Deed-Bk.60 P.310	SSNERR to State Land Board	(4)
T.26S.-R.13W. Sec.30 PARCEL 3 Lots 1,2,3,4 E1/2W1/2, NE1/4	476.78	Sept. 7, 1976	Special Warranty Deed (Exhibit A) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(5)
S1/2NE1/4	77.2	Dec. 12, 1984	Deed-Bk.60 P.310	SSNERR to State Land Board	(6)
T.26S.-R.14W. Sec.13 PARCEL 1 Lot 5 less N 66ft.	50.60	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State	(7)

				Land Board	
PARCEL 1 Lot 6	25.63	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(8)
PARCEL 1 Those tidelands fronting & abutting Gov. Lots 5 & 6 lying South of the center-line of Days Slough, all in the SW1/4	28.11 more or less	July 28, 1983	Deed-Bk.59 Pgs. 234-237	State to SSNERR	(9)
PARCEL 1 SE1/4SW1/4	40.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(10)
PARCEL 1 W1/2NE1/4SE1/4	20.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(11)
W1/2NE1/4SE1/4	?	Oct. 1, 1976	Quitclaim Deed Bk.57 P.318	Georgia Pacific to SSNERR	(12)
Fraction S1/2SE1/4, NW1/4SE1/4	117.38	May 23, 1977	Warranty Deed Bk.57 P.395	Oxford to State of Oregon	(13)
T.26S.-R.14W. Sec.14 PARCEL 1 Lot 6	42.18	March 29, 1978	Warranty Deed Bk.58 Pgs.128 & 129	Pacific NW Development Corp. to State of Oregon	(14)
Lot 9	23.25	Sept. 7, 1976	Special Warranty Deed-Bk.57 P.306	Nature Conservancy of Oregon to State Land Board	(15)

ARCEL 2 hose tidelands encircling Gov. Lot 9 Valino Island), all n the SE1/4	34.39 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	(16)
26S.-R.14W. Sec.22 PARCEL 1 SE1/4SE1/4	40.00	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. Co. to State of Oregon	(17)
PARCEL 2 Fraction NE1/4SE1/4, SE1/4NE1/4 E of County Road	?	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(18)
T.26S.-R.14W. Sec.23 PARCEL 1 Lot 1	7.73	March 29, 1978	Warranty Deed Bk.58 Pgs.128 & 129	Pacific NW Development Corp. to State of Oregon	(19)
PARCEL 1 Lot 2	13.02	March 29, 1978	Warranty Deed Bk.58 Pgs.128 & 129	Pacific NW Development Corp. to State of Oregon	(20)
PARCEL 1 Lot 3	31.11	March 29, 1978	Bk.58 Pgs.128 & 129	Pacific NW Development Corp. to State of Oregon	(21)
PARCEL 1 E1/2NW1/4	80.00	March 29, 1978	Warranty Deed Bk.58 Pgs.128 & 129	Pacific NW Development Corp. to State of Oregon	(22)
PARCEL 2 Lot 6 & tidelands	2.67	March 29, 1978	Warranty Deed	Pacific NW	(23)

ND #24

fronting & abutting			Bk.58 Pgs.128 & 129	Development Corp. to State of Oregon	24 2 (MISNUMBER)
PARCEL 2 Lot 7 & tidelands fronting & abutting	5.92	March 29, 1978	Warranty Deed Bk.58 Pgs.128 & 129	Pacific NW Development Corp. to State of Oregon	25
PARCEL 2 Lot 8 & tidelands fronting & abutting	15.47	March 29, 1978	Warranty Deed Bk.58 Pgs.128 & 129	Pacific NW Development Corp. to State of Oregon	26
PARCEL 2 Lot 9 & tidelands fronting & abutting	21.08	March 29, 1978	Warranty Deed Bk.58 Pgs.128 & 129	Pacific NW Development Corp to State of Oregon	27
PARCEL 3 Lot 5	39.78	March 29, 1978	Warranty Deed Bk.58 Pgs.128 & 129	Pacific NW Development Corp. to State of Oregon	28
PARCEL 4 Lot 4	36.46	Sept. 7, 1976	Special Warranty Deed (Exhibit A) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	29
PARCEL 4 NW1/4SW1/4	40.00	Sept. 7, 1976	Special Warranty Deed (Exhibit A) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	30
PARCEL 4 SW1/4NW1/4 E of County Road	? 29.69 AC	Sept. 7, 1976	Special Warranty Deed (Exhibit A) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	31

10	14.15	May 23, 1977	Corporate Special Warranty Deed-Bk.57 P.392	Bohemia Inc. to State of Oregon	32
ARCEL 3 elands encircling . Lot 9 (Valino Is.) 11 in the NE1/4	9.73 more or less	July 22, 1983	Deed-Bk.59 P.234	State of Oregon to SSNERR	33
ARCEL 4 idelands fronting & utting on the sterly sides of Lots 10,11,12 (Long Island int), all in the /2E1/2	13.81 more or less	July 22, 1983	Deed-Bk.59 P.234	State of Oregon to SSNERR	34
t 11	13.26	May 23, 1977	Corporate Special Warranty Deed Bk.57 P.392	Bohemia Inc. to State of Oregon	35
t 12	14.73	May 23, 1977	Corporate Special Warranty Deed Bk.57 P.392	Bohemia Inc. to State of Oregon	36
ARCEL 2 J1/4SW1/4	40.00	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	37
26S.-R.14W. Sec.24 ARCEL 3 NE1/4	160.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	38
E1/2NE1/4	80 AC ?	Oct. 1, 1976	Quitclaim Deed Bk.57 P.318	Georgia Pacific to SSNERR	39
ARCEL 3 NE1/4SE1/4	40.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	40

PARCEL 3 ? - 202#41

Lot 1	38.11	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(41)
PARCEL 3 Lot 3	41.02	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(42)
PARCEL 3 Lot 4	43.20	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon Land Board	(43)
PARCEL 3 Lot 5	43.44	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(44)
PARCEL 3 Lot [illegible]	25.77	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(45)
PARCEL 3 Lot 7	17.04	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(46)
PARCEL 3 Lot 8	19.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(47)
PARCEL 3 Lot 9	11.88	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State LAND BOARD	(48)

				Land Board	
2	.63	May 23, 1977	Corporate Special Warranty Deed-Bk.57 P.392	Bohemia Inc. to State of Oregon	(49)
10	36.57	May 23, 1977	Corporate Special Warranty Deed-Bk.57 P.392	Bohemia Inc. to State of Oregon	(50)
RCEL 5 delands fronting & tting Gov. Lots 1 all in the NW1/4	21.35 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	(51)
RCEL 3 elands fronting ov. Lot 6	?	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(52)
CEL 6 elands fronting & butting on the east-ly side of Gov. Lots 11,12 all in the 2W1/2	33.70 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	(53)
CEL 7 elands fronting & butting on the south-y side of Gov. Lots 5 and on the ortherly side of Gov. ots 8 & 9, all in the 2	6.96	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	(54)
ARCEL 8 most northerly of islands, including djacent tidelands in he bed of South Slough nting but not butting, Gov. Lots 4 10, in the SW1/4	4.55 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	(55)
ARCEL 9 most southerly of islands, including	16.94 more or	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to	(56)

adjacent tidelands in the bed of South Slough fronting, but not abutting, Gov. Lots 4, 9 & 10, in the SW1/4	less			SSNERR

PARCEL 10

Tidelands fronting and abutting on the westerly side of Gov. Lot 9, in the SW1/4	1.98 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR

(C)
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ntended For: FILE
uthor: Greg Willnow
Subject: SSNERR properties

This Item is In Progress

Legal Description	Acres	Date of Transaction	Type of Transaction	From/To Whom	
T.26S.-R.14W. Sec.25					
PARCEL 3 Lot 11	39.56	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	(58)
PARCEL 3 SE1/4SE1/4	40.00	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	(59)
PARCEL 4 Lot 1	34.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(60)
PARCEL 4 Lot 2	33.42	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(61)
PARCEL 4 Lot 3	17.07	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy to State Land Board	(62)
PARCEL 4 Lot 12	20.89	Sept. 7, 1976	Special Warranty Deed (Exhibt B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	(63)
PARCEL 4 Lot 13	35.39	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon	(64)

				to State Land Board	
CEL 4 NE1/4SE1/4	40.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	65
PARCEL 11 Tidelands fronting & abutting Gov. Lots 4, 5 & 6 in the NW1/4	2.95 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	66
PARCEL 12 Tidelands fronting & abutting Gov. Lots 1, 2,3,8,9,10,11 & 12	31.76 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	67
TRACT 1 Lot 4	37.20	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	68
TRACT 1 Lot 5	3.02	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	69
TRACT 1 Lot 6	31.21	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	70
TRACT 1 Lot 7	39.90	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	71
TRACT 1 Lot 8	39.28	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	72
TRACT 1 Lot 9	31.06	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	73
TRACT 1 Lot 10	9.29	Dec. 12, 1984	Deed-Bk.60 Pgs.	State of	74

			307-309	Oregon to SSNERR	74
TRACT 1 1/2SW1/4	80.00	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	75
TRACT 1 SW1/4SE1/4	40.00	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	76
26S.-R.14W. Sec.26 PARCEL 4 Lot 1	21.81	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	77
PARCEL 4 Lot 2	33.43	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	78
PARCEL 4 E1/2NW1/4	80.00	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	79
PARCEL 4 SW1/4NW1/4	40.00	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	80
PARCEL 5 SW1/4SW1/4	40.00	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	81
PARCEL 5 NW1/4NW1/4SW1/4 except .63 acre railroad right of way	10.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	82

PARCEL 5 SW1/4NW1/4SW1/4 except .00 acre railroad right of way	10.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	83
PARCEL 5 Lot 3	30.51	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	84
PARCEL 5 E1/2SW1/4	80.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	85
PARCEL 5 E1/2NW1/4SW1/4	20.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	86
PARCEL 5 Tidelands fronting Lot 3	?	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	87
Lot 4	39.51	Sept. 7, 1976	Special Warranty Deed-Bk.57 P.308	Nature Conservancy of Oregon to State Land Board	88
Tidelands fronting & abutting Lot 4	?	Sept. 7, 1976	Special Warranty Deed-Bk.57 P.308	Nature Conservancy of Oregon to State Land Board	89
PARCEL 13 Tidelands fronting & abutting Gov. Lots 1 & 2 in the NE1/4	31.01 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	90

RCEL 14 lands fronting & ting Gov. Lots 6, in the E1/2E1/2	43.76 more or less	July 22, 1983	Deed-Bk.59 Pgs. 234-237	State of Oregon to SSNERR	91
CT 1 8	7.40	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	92
t 5	17.11	June 2, 1982	Warranty Deed Bk.59 Pgs.97-98	Meek & Straight to State Land Board	93
elands fronting 5	Approx. 14.06	June 2, 1982	Warranty Deed Bk.59 Pgs.97-98	Meek & Straight to State Land Board	94
6	18.34	June 2, 1982	Warranty Deed Bk.59 Pgs.97-98	Meek & Straight to State Land Board	95
7	15.81	June 2, 1982	Warranty Deed Bk.59 Pgs.97-98	Meek & Straight to State Land Board	96
RACT 2 ortion of the 1/4NW1/4	.43	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	97
S.-R.14W. Sec.34 RCEL 7 E1/4NE1/4	40.00	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	98
5S.-R.14W. Sec.35 W1/4NE1/4	40.00	Sept. 7, 1976	Special Warranty Deed-Bk.57 P.308	Nature Conservancy of Oregon	99

				to State Land Board	
1	19.20	Sept. 7, 1976	Deed of Conservation Easement Bk.57 Pgs.310-311	Nature Conservancy of Oregon to State Land Board	100
Tidelands abutting Lot 2 lying north of Hinch Road & tidelands fronting & abutting said Lot 1	?	Sept. 7, 1976	Deed of Conservation Easement Bk.57 Pgs.310-311	Nature Conservancy of Oregon to State Land Board	101
PARCEL 1 E1/2NW1/4	80.00	May 23, 1977	Warranty Deed Bk.57 P.393	Jacobson to State of Oregon	102
PARCEL 8 Portion of Gov. Lot 2 and of the SW1/4NE1/4	27.92 more or less	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	103
PARCEL 2 Tidelands fronting & [illegible]tting Lot 2, lying [illegible]th of the County Rd.	?	May 23, 1977	Warranty Deed Bk.57 P.393	Jacobson to State of Oregon	104
PARCEL 2 Lot 3	17.57	May 23, 1977	Warranty Deed Bk.57 P.393	Jacobson to State of Oregon	105
PARCEL 2 Lot 4	40.97	May 23, 1977	Warranty Deed Bk.57 P.393	Jacobson to State of Oregon	106
Portion of Gov. Lot 6 lying north of the south line of Gov. Lot 1, together with the tidelands fronting & abutting said tract; also all of that portion in any, of the tidelands fronting & abutting Lot 1 of Sec.36, of T.26S.-R.14W.	?	July 5, 1983	Warranty Deed Bk.59 Pgs.238-239	Morris to State of Oregon	107

PARCEL 6 1/2NW1/4 except that part in the public road	80.00	Jan. 26, 1979	Warranty Deed (Exhibit A) Bk.58 Pgs.223-225	Coos Head Tbr. to State of Oregon	108
NE1/4SW1/4	40.00	May 23, 1977	Warranty Deed Bk.57 P.397	Fredrickson to State of Oregon	109
SE1/4NW1/4	40.00	May 10, 1977	Warranty Deed Bk.57 P.394	Brinkman to State of Oregon	110
PARCEL 6 N1/2SW1/4	80.00	Sept. 7, 1976	Special Warranty Deed (Exhibit B) Bk.57 Pgs.312-317	Nature Conservancy of Oregon to State Land Board	111
SE1/4SW1/4	40.00	June 29, 1977	Warranty Deed Bk.58 P.211	Fredrickson to State of Oregon	112
SW1/4SE1/4 and that portion of Lot 4, lying west of South Slough & Winchester Cr.	40.00	June 29, 1977	Warranty Deed Bk.58 P.211	Fredrickson to State of Oregon	113
All of Gov. Lot 4 except that portion of Lot 4 lying west of South Slough and Winchester Cr.	?	June 29, 1977	Warranty Deed Bk.58 P.210	Fredrickson to State of Oregon	114
NW1/4SE1/4	40.00	June 23, 1977	Warranty Deed Bk.58 Pgs.208-209	Voigt to State of Oregon	115
SW1/4NE1/4	40.00	June 23, 1977	Warranty Deed Bk.58 Pgs.208-209	Voigt to State of Oregon	116
All that portion of Lots 2 & 3 lying westerly of the following described boundary line beginning at the meander corner between Sections 35 & 36	(Lot 2) (16.81) (Lot 3) (17.57)	June 23, 1977	Warranty Deed Bk.58 Pgs.208-209	Voigt to State of Oregon	117

Intended For: FILE
Author: Greg Willnow
Subject: SSNERR properties

This Item is In Progress

Legal Description	Acres	Date of Transaction	Type of Transaction	From/To Whom	
T.26S.-R.14W. Sec.36 TRACT 1 Lot 1	37.23	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	118
Tidelands fronting & abutting Gov. Lot 1, excepting that part, if any, lying in Sec. 35 of T.26S.-R.14W.	2.01	March 2, 1977	Warranty Deed Bk.57 P.396	Peterson to State of Oregon	119
SE1/4NW1/4	? 40 AC	May 9, 1977	Warranty Deed of Personal Representative Bk.57 P.398	Brinkman to State of Oregon	120
TRACT 1 S../4NW1/4	40.00	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	121
TRACT 1 NE1/4NW1/4	40.00	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	122
TRACT 1 W1/2NE1/4	80.00	Dec. 12, 1984	Deed-Bk.60 Pgs. 307-309	State of Oregon to SSNERR	123
PARCEL 1 That portion of Gov. Lot 6 and the tidelands fronting & abutting thereto, lying south of the south line of Gov. Lot 1 extended easterly, all being in Sec. 35 of T.26S.-R.14W.	?	Feb. 14, 1992	Correction Contract Bk.66 Pgs.39-40	Tracy to State of Oregon	124

T26S R14W S35
TL 1400
14.22 AC

EL2 Lot 5 and the elands fronting & ting thereto in 35 of T.26S.-R.14W.	1.65AC ? ~~44.22AC~~	Feb. 14, 1992	Correction Contract Bk.66 Pgs.39-40	Tracy to State of Oregon	125
RCEL 3 Lot 2 and the tide- ds fronting & abutting ereto in Sec. 36 of 6S.-R.14W.	?	Feb. 14, 1992	Correction Contract Bk.66 Pgs.39-40	Tracy to State of Oregon	126
RCEL 4 4SW1/4 of Sec. 36 T.26S.-R.14W.	?	Feb. 14, 1992	Correction Contract Bk.66 Pgs.39-40	Tracy to State of Oregon	127
CEL 5 1/2SW1/4 of Sec. 36 T.26S.-R.14W.	?	Feb. 14, 1992	Correction Contract Bk.66 Pgs.39-40	Tracy to State of Oregon	128
2SE1/4	78.20	June 19, 1875	Deed-Bk.F P.464	State of Oregon to Jacob Weikman	129

BLE TO DOCUMENT STATE OWNERSHIP OF W1/2SE1/4 OF Sec. 36 130
SNERR OWNERSHIP MAP REFLECTS THIS PARCEL AS BEING PART OF SSNERR LANDS.
SSIBLE FORECLOSURE MAY HAVE OCCURRED.

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al Description	Acres	Date of Transaction	Type of Transaction	From/To Whom	
LL ISLAND - (Parcels 1-7) — OUTSIDE boundary - N/A					
5S.-R.12W. SW1/4 of Sec. 29 131A F 1/2 of Sec. 30 131B 1/4 of Sec. 31 131C	Approx. 428.48	June 11, 1996	Quitclaim Deed (Exhibit A) Bk.67 Pgs.96-104	Nature Conservancy of Oregon to State of Oregon-DSL	131 N/A
5S.-R.13W. c. 24					132 N/A

DEEDS?

S1/2 of Sec. 13 Deed 132B N/A

DAVIS SLOUGH PROPERTY – outside boundary – N/A

T.26S.–R.13W. SE1/4 of Sec. 21 133A SW1/4 of Sec. 22 133B N1/2 of Sec. 27 133C NE1/4 of Sec. 28 133D	Approx. 60.08	June 11, 1996	Quitclaim Deed (Exhibit A-1) Bk.67 Pgs.96–104	Nature Conservancy of Oregon to State of Oregon–DSL	133 N/A

SMITH ISLANDS – outside boundary – N/A

T.21S.–R.12W. W1/2 of Sec. 25	Approx. 11.62	June 11, 1996	Quitclaim Deed (Exhibit A-2) Bk.67 Pgs.96–104	Nature Conservancy of Oregon to State of Oregon–DSL	134

T.26S.–R.14W. Sec. 27 IN PARCEL 1 T.L. 1400 SE1/4SE1/4 except therefrom that portion lying northerly of the County Rd.	4.22	July 16, 1996	Warranty Deed Bk.67 Pgs.93–95	Erik Johnson to SSNERR	135
T 3.–R.14W. Sec. 34 PARCEL 2 T.L. 100 N1/2N1/2N1/2NE1/4NE1/4	5.00	July 16, 1996	Warranty Deed Bk.67 Pgs.93–95	Erik Johnson to SSNERR	136

OXFORD EXCHANGE OUT – N/A (Appears to be exchange to another party)

T.26S.–R.14W. Sec. 13 NW1/4SE1/4	3.33	June 4, 1996	Property Line Adjustment Deed Bk.67 Pgs.83–87	SSNERR to Oxford	137 N/A
NW1/4SE1/4	.58	June 4, 1996	Property Line Adjustment Deed Bk.67 Pgs.88–92	Oxford to SSNERR	138 N/A