

Appendix C

SYNTHESIS OF SELECTED TERRESTRIAL PLANNING DOCUMENTS

Introduction

The Linking Land and Sea: A Northern California Coastal Conservation Needs Assessment seeks to understand the needs of organizations working to conserve coastal resources both on the land and in the ocean. To be successful in protecting and restoring the rich coastal resources of northern California, we need to better understand how our activities affect the land-to-sea continuum and to search for opportunities to connect conservation priorities across the land-sea margin. “Sustainability of coastal communities and economies depends upon successfully integrated management across the several systems that comprise coastal biomes.” (Society for Conservation Biology, 2006)

The goal of Linking Land and Sea is to assess and document the specific needs, including capacity building, of conservation organizations for regional strategic coastal (marine and terrestrial) conservation planning and implementation in Mendocino, Humboldt, and Del Norte Counties. The project has three components:

1. Assessment of the needs of coastal conservation organizations via regional workshops, surveys, and focused interviews.
2. Identification of coastal conservation planning needs. Is there a need for more planning? And, if so, what type of planning?
3. Synthesis of existing coastal conservation plans both marine and terrestrial, with a focus on marine.

This document represents the third component, a review and summary of the existing marine and terrestrial coastal conservation planning efforts relevant to Northern California. While there are a great many terrestrial conservation plans, little is known about coastal marine conservation plans that specifically address the north coast region. Thus, more time was allocated to researching and synthesizing marine plans. A separate summary of existing marine plans was produced as part of the Linking Land and Sea needs assessment and is included as Appendix E of the needs assessment final report.

Methodology

There are over 100 existing plans or studies that evaluate some aspect of the terrestrial natural resources and conservation opportunities in Mendocino, Humboldt and Del Norte counties (the North Coast). These include watershed-based plans; official agency or government resource plans; single species conservation plans; community and county land use plans; local coastal plans; and property specific plans. These plans contain a wealth of information and are guiding numerous conservation efforts at a variety of scales. These recent efforts to assess regional conservation priorities have pulled together the existing data, information and recommendations

from the myriad of existing plans to “...develop a regional perspective and provide a basis for implementing comprehensive conservation programs that address the many complex and compelling conservation opportunities on the North Coast.” (The Conservation Fund, 2005)

Methodology (continued)

We have reviewed the following assessments and compiled findings and recommendations that specifically address coastal conservation and the land-to-sea continuum:

1. *CONSERVATION PROSPECTS FOR THE NORTH COAST: A Review and Analysis of Existing Conservation Plans, Land Use Trends and Strategies for Conservation on the North Coast of California* (The Conservation Fund, August 2005). The document can be found at www.coastalconservancy.ca.gov/Programs/pandp.htm. The Conservation Fund synthesized seven plans (listed below) that were judged to be sufficiently similar in scope, quality and currency that they could be integrated into a comprehensive overview of the conservation priorities, opportunities and constraints for some portion of the region:

California North Coast Ecoregion Aquatic Conservation Strategy Recommendations (The Nature Conservancy of California, Fall 2003).

California North Coast Ecoregional Plan (The Nature Conservancy of California, June 2001).

Completing the California Coastal Trail (California State Coastal Conservancy, January 2003).

Mendocino County Coastal Conservation Plan (Mendocino Land Trust, April 2003).

A GIS-Based Model for Assessing Conservation Focal Areas for the Redwood Ecoregion (Conservation Biology Institute and Save the Redwoods League, 1999).

Recovery Strategy for California Coho Salmon (California Department of Fish and Game, 2004).

Strategic Plan Update (Pacific Coast Joint Venture, 2004).

2. *Working Toward a Humboldt - Del Norte Conservation Vision: Identifying Regional Conservation Priorities* (The Nature Conservancy, 2006). In 2005 The Nature Conservancy, Save-the-Redwoods League, and the North Coast Regional Land Trust brought together public and private conservation partners in a series of workshops designed to identify conservation target systems, stresses, sources of stress, and strategies for the region. TNC lead the workshops utilizing the Efromson process, a conservation planning process that has been successful in over 300 locations worldwide. This document is a reporting of the results of these workshops. This document can be found at [conserveonline.org/docs/2005/12/Humboldt Del%20Norte%20Conservation%20Vision%20Map.pdf](http://conserveonline.org/docs/2005/12/Humboldt%20Del%20Norte%20Conservation%20Vision%20Map.pdf)

Methodology (continued)

3. *Northern California Marine Ecoregional Assessment* (The Nature Conservancy, 2006). This Assessment covered a region from the Oregon California border to Point Conception and identifies a portfolio of conservation areas that represent the diversity of estuarine, nearshore and offshore habitats. This is the only assessment that crosses the land-sea interface. A total of 17 marine and estuarine portfolio conservation areas were delineated within the area of interest of the Linking Land and Sea Needs Assessment. While the ultimate goal is the protection of the entire portfolio, a preliminary and qualitative assessment of threats and opportunities in the ecoregion was used to identify priority action areas. No strategies were identified for conservation at the individual sites. This document can be found at conserveonline.org/workspaces/ecotools/Std7CaseStudies/Standard%207%20PNWC%20offshore.pdf

Each of these documents contains detailed information about the region, its resources, threats to those resources and opportunities for conservation. They are worthy of review by anyone interested in furthering coastal conservation on the North Coast.

The regional and site-specific strategies, goals, visions, objectives, and recommendations focusing on coastal conservation and the land-to-sea continuum from these assessments are summarized here, organized into the following categories:

- Collaboration/Partnerships/Private Landowners
- Planning/Strategies
- Restoration/Enhancement
- Outreach/Education
- Government Policies, Regulations, Land Use Planning
- Land Protection/Acquisition/Easements
- Public Access

Within each category there are region-wide recommendations followed by more site-specific recommendations (Note: each recommendation is followed by a number corresponding to the assessment that it came from).

The site-specific recommendations are organized by Hydrologic Units (“HUs”) within the study area as per the format of the *Conservation Prospects for the North Coast*. Organizing the recommendations in this manner allowed for determination of gaps and identification of opportunities for both the category and the geographic area.

The nine HU's start in the north of the region at the Smith River and go south to the Mendocino Coast. The HU's from north to south are (Figure 1):

- Smith River – (450,477 acres, 704 mi²), the Smith River's three main tributaries flow from the forested highlands of the Coast Ranges toward a broad agricultural floodplain and complex tidal estuary just south of the Oregon border. The HU also includes two of the largest wetland and migratory bird habitats in the North Coast, the brackish Lake Tolowa and nearly fresh Lake Earl.
- Lower Klamath River HU - (318,363 acres, 497 mi²), includes 40 miles of the Klamath River from the confluence of the Salmon River to the Pacific Ocean.
- Redwood Creek HU – (187,853 acres, 294 mi²), Redwood Creek's lower basin, as well as its Prairie Creek tributary, is public parkland managed by Redwood National and State Parks.
- Trinidad HU – (83,771 acres, 104 mi²) includes some of the most significant coastal lagoons on the North Coast - Freshwater, Big, Dry, and Stone lagoons. Also includes the Little River drainage and coastal streams from Strawberry Creek north to Freshwater Lagoon.
- Mad River HU – (322,199 acres, 503 mi²). BLM and the USFS manage 36 percent of the watershed. Half of the remaining land is in private ownership, and half of this is owned by two timber companies. Gravel mining operations are present on the lower Mad as it approaches the coastal plain.
- Eureka Plain HU – (141,190 acres, 221 mi²) contains redwood forests, prime agricultural lands, and riparian and wetland habitat leading to the tidal marshland of the bay. The 16,000-acre Humboldt Bay is the largest estuary between San Francisco Bay and Coos Bay, Oregon.
- Eel River HU – (2,356,794 acres, 3,682 mi²) the third largest river system in California, crossing six counties. The 33,000-acre Eel River delta is another of the North Coast region's significant wetland, riparian, and agricultural resource.
- Cape Mendocino HU – (319,663 acres, 499 mi²): Mattole River, Bear River, and Oil Creek. Nearly all of the 70,000 acres of public ownership in the HU are by BLM, mostly as part of the King Range National Conservation Area (KRNCA). KRNCA is home to the famed "Lost Coast," a 35-milelong stretch of the most pristine and undeveloped coastline in California.
- Mendocino Coast HU – (1,023,175 acres, 1,599 mi²), the HU includes seven major river basins — the Ten Mile, Noyo, Big, Albion, Navarro, Garcia, and Gualala rivers — with numerous smaller streams also draining directly to the Pacific Ocean.

Once the recommendations from the 3 assessments were categorized in this way existing gaps could be more easily determined. The gaps were identified based on knowledge and expertise of the planning and advisory teams, input gathered from the needs assessment meetings, questionnaires and surveys.

SYNTHESIS OF GOALS, RECOMMENDATIONS, ACTIONS by Category

Collaboration/Partnerships/Private Landowners

In Mendocino and Humboldt counties, 82 and 69 percent of each county area, respectively, is in private ownership. Del Norte County has the lowest percentage of private land — just 23 percent — with much of the public land in Six Rivers National Forest (U.S. Forest Service). (The Conservation Fund, 2005)

Regional Recommendations

- Further develop and maintain partnerships with key landowners, organizations and agencies to bolster successful protection of nodes, corridors, natural areas and working landscapes (2).
- Work with private landowners to develop best management practices for working landscapes, forests, ranches, dairies, and farmlands. Provide incentives and technical assistance to landowners for this purpose (2).
- Promote cooperative management among agencies and private landowners in tidal and estuarine flats under multiple managements (2).
- Develop and support local programs that are committed to well planned and strategic long-term efforts to protect areas with high coastal resource values (1).
- Develop public and private philanthropic loan programs, like the State Revolving Fund, that provide long-term, low interest loans to non-profit and private landowners to establish and maintain working landscape projects (1).

Recommendations by Hydrologic Unit

Del Norte County/Smith River HU

Collaborate with private landowners to protect habitat and resolve management issues at Lake Earl (1).

Humboldt County/Trinidad HU

Pursue cooperative management agreements with private landowners near McDonald Creek to protect wetland and wildlife values in McDonald Creek and Stone Lagoon (1).

Pursue cooperative management agreements with private landowners to protect, restore, or enhance wetland and wildlife values at the Little River estuary (1).

Humboldt County/Mad River HU

Pursue cooperative management agreements with Humboldt County and the California Department of Transportation for protecting estuarine habitat values, as well as local landform stability for the lower Mad River (1).

SYNTHESIS OF GOALS, RECOMMENDATIONS, ACTIONS (continued)

Humboldt County/Eureka Plain and Eel River HU (continued)

Pursue cooperative management agreements with the McKinleyville Community Services District and Humboldt County to protect estuarine habitat values and other in-stream values in the estuary and local creeks as development occurs in McKinleyville (1).

Humboldt County/Eureka Plain HU

In cooperation with willing landowners, restore and maintain historical tidal areas, backwater channels, and salt marsh in Humboldt Bay (1).

Humboldt County/Eel River HU

Where feasible and appropriate, work with public agencies and individual landowners to address excessive erosion upstream in the watershed, in order to reduce impacts on Eel River delta wetland and wildlife values (1).

Mendocino County/Mendocino Coast HU

Work with agricultural landowners to create riparian easements along the Point Arena plain and headland, Alder and Brush creeks, the Garcia River, and the Gualala River estuary (1).

Enhance wildlife habitat through cooperative efforts with private landowners and DPR along the Point Arena plain and headland, Alder and Brush creeks, the Garcia River, and the Gualala River estuary (1).

Planning/Strategies

Regional Recommendations

Facilitate protection of functional landscapes throughout the region by working with local governments, planners, and developers to plan well-designed open space, set-asides, mitigation, and growth management, including support for the following: Humboldt County General Plan Update; and public funding for open space through state bond issues, and local funding initiatives. (2)

Recommendations by Hydrologic Unit

Humboldt County/Trinidad HU

Develop a **plan** to improve the functioning of the lower Little River estuary, reestablishing conifers and a functional floodplain and riparian zone on the lower river channel and reestablishing more complex instream habitat (1).

Humboldt County/Eureka Plain and Eel River HU

Work with federal, state, and local agencies, conservation groups, the agricultural community, and others to develop a long-term, comprehensive **plan** for the restoration, enhancement and protection of Humboldt Bay and the Eel River delta (1).

SYNTHESIS OF GOALS, RECOMMENDATIONS, ACTIONS (continued)

Planning/Strategies

Humboldt County/Eureka Plain and Eel River HU (continued)

In cooperation with agencies and landowners, **plan** to reestablish estuarine functions and to restore and maintain historical tidal areas, backwater channels and salt marsh in Eel River Delta (1).

Support the establishment of Humboldt Bay – Eel River Estuary as National Estuarine Research Reserve (1).

Mendocino County/Mendocino Coast HU

Support the Mendocino Land Trust (MLT) and Department of Parks and Recreation (DPR) in developing a long-term monitoring and management **plan** for the Big River estuary and the adjacent forested lands.(1)

Restoration/Enhancement

Regional Recommendations

- Protect and restore coastal (forests, prairies, scrub), estuarine (marsh, eelgrass, estuaries and lagoons), and beach and dune systems in intact functional landscapes that allow for natural processes, provide habitat for coastal/estuarine dependent species, and provide critical linkages between terrestrial/aquatic/marine environments (2).
- Protect and restore coastal estuaries and lagoons (particularly the most threatened components such as salt marsh, brackish marsh, and eelgrass beds) and the ecological processes needed to sustain them (freshwater inputs, tidal exchange, etc.) (2).
- Protect and restore coastal dunes and beaches that provide important habitat for threatened plants, shorebirds, and other species (2).
- Maintain and restore important linkages between marine, estuarine, aquatic and terrestrial systems that are important for estuarine-dependent species such as salmonids, shorebirds, waterfowl, and native shellfish (2).
- Promote riparian and estuarine restoration projects where feasible, in particular ones aimed at reestablishing natural estuarine channel function and riparian overstory canopy (2).
- Reduce invasives in coastal marsh habitat and reduce additional invasions through monitoring, removal, and restoration (2).
- Develop regional restoration plan with thorough mapping of invasives and native dune communities to prioritize sites for native dune restoration (2).

SYNTHESIS OF GOALS, RECOMMENDATIONS, ACTIONS (continued)

Restoration/Enhancement

Regional Recommendations (continued)

- Restoration of critically imperiled ecosystems and species such as coastal marshes; intertidal estuaries, eelgrass beds, native oyster beds, and salmonids; potential funding is available from the NOAA Community-based Coastal Restoration Program (3).
- Restoration of coastal streams for anadromous fish through removal of barriers and enhancement of spawning habitat for salmonids (3).

Del Norte County/Smith River HU

Restore and enhance floodplain riparian forests in the lower Smith River delta (1).

Humboldt County/Redwood Creek HU

Work with landowners to restore the historic form and function of the Redwood Creek estuary and lagoon and slough channels, riparian forests, and adjacent wetlands. This includes providing for unconfined channels, natural drainage patterns from adjacent wetlands, improvement of estuarine slough and tributary conditions (in Strawberry, Dorrance and Sand Cache creeks), and restoration of riparian vegetation, tree cover, wetlands, and off-channel and rearing habitat (1).

Humboldt County/Trinidad HU

Restore and enhance wetland and wildlife values on public lands in or adjacent to Little River, especially floodplain riparian forest (1).

Humboldt County/Mad River HU

Restore and enhance wetland and wildlife values on public trust lands in and adjacent to the lower Mad River, especially floodplain emergent wetlands, floodplain riparian forests, and instream habitat (1).

Humboldt County/Eureka Plain HU

Enhance wetland habitats and wildlife values on publicly owned wildlife areas managed by Department of Fish and Game (DFG) (1).

Work with the city of Eureka and individual landowners to restore/enhance wetland and wildlife values in the Eureka Marsh/PALCO wetland complex, the West End Road wetland complex and other wetlands within the city (1).

Work with the County of Humboldt and individual landowners to enhance existing freshwater wetland values in the Fields Landing/King Salmon area and on the North Spit (2).

SYNTHESIS OF GOALS, RECOMMENDATIONS, ACTIONS (continued)

Restoration/Enhancement

Humboldt County/Eel River HU

Restore tidal action to diked wetlands, where feasible and appropriate, to enhance wetland and wildlife values as well as estuarine volume (1).

Work with the Humboldt County Resource Conservation District to restore and enhance wetland functions, including habitat values and tidal flushing, in the Salt River watershed (1).

Restore and enhance wetland and wildlife values, especially floodplain riparian forest, riverine pools, and the estuary, in public trust lands in the Eel River delta (1).

Studies/Research/Data

Regional Recommendations

Determine information gaps related to the TNC conservation targets and fill them as needed to successfully plan for and implement conservation projects in Humboldt Bay, and coastal systems (2).

Mendocino County/Mendocino Coast HU

Study the Garcia River estuary using the Garcia River Estuary Enhancement Feasibility Study, as well as new information, to consider restoring estuarine functions that would benefit coho salmon (1).

Outreach/Education

There were no regional or site specific recommendations in these three documents related to outreach and education.

Government Policies, Regulations, Land Use Planning

Regional Recommendations

Facilitate protection of functional landscapes throughout the region by working with local governments, planners, and developers to plan well-designed open space, set-asides, mitigation, and growth management (2).

Support and establish public funding for open space through state bond issues and local funding initiatives (2).

Humboldt County

Support for the Humboldt General Plan Update (2)

SYNTHESIS OF GOALS, RECOMMENDATIONS, ACTIONS (continued)

Government Policies, Regulations, Land Use Planning

Humboldt County/Redwood Creek HU

Work with the US Army Corps of Engineers, Redwood National and State Parks, and the Humboldt County Planning Department to modify levee maintenance manuals to be consistent with habitat requirements of coho salmon while maintaining flood control (1).

Humboldt County/Trinidad HU

No recommendations were found for this HU

Humboldt County/Eureka Plain HU

Work with local, state, and federal agencies to ensure that mariculture activities are compatible with wildlife values within tidelands of Humboldt Bay (1).

Work with Humboldt County and the cities of Eureka and Arcata to ensure that wetland and wildlife values are protected as development occurs, particularly in the Martin Slough/Elk River, Freshwater Creek, Jacoby Creek, and Janes Creek drainages and on the North Spit (1).

Work with the Humboldt Bay Harbor, Recreation, and Conservation District to assure that wetland and wildlife values are protected on public trust lands as development occurs within improved harbor areas (1).

Mendocino County/Mendocino Coast HU

Support state park actions to provide protection to Ten Mile Beach for wintering and nesting western snowy plovers and rare plant populations (1).

Monitor the permitting and operation of commercial fishing mariculture to ensure the protection of eelgrass beds at the mouth of the Navarro (1).

Support retention of current zoning to protect existing habitat values and to protect agricultural lands from more intensive development along the Point Arena plain and headland, Alder and Brush creeks, the Garcia River, and the Gualala River estuary (1).

Land Protection/Acquisition/Easements

Regional Recommendations

- Protect key properties in the North Coast through fee acquisition, conservation easements, and/or limited development (2).
- Evaluate opportunities to acquire land and/or conservation easements from willing sellers on wetland, estuarine, and tideland areas within in the region (2).

SYNTHESIS OF GOALS, RECOMMENDATIONS, ACTIONS (continued)

Land Protection/Acquisition/Easements

Regional Recommendations (continued)

- Move quickly to establish “working landscape” conservation management on large, strategically located forest and agricultural properties in resource rich watersheds in Humboldt, Mendocino, and Del Norte counties (1).
- Focus other fee or easement acquisitions on unique resources that are essential to conserving high priority coastal resources, such as remaining old-growth redwood forest stands, coastal estuaries and floodplains within important coho salmon refugia watersheds, and California Coastal Trail segments (1).

Del Norte County/Smith River HU

Prevent the development of properties in the Lake Earl floodplain and Smith River Delta through acquisition of fee or easements from willing sellers, to support natural flood and estuary processes (1).

Provide roosting for water-associated birds by acquiring forested areas adjacent to Lake Earl and Lake Tolowa from willing sellers (1).

Acquire and enhance wetland areas from willing sellers in the Elk Creek wetland complex, the Crescent City marshes, and south of Point St. George (1)

Humboldt County/Trinidad HU

Acquire additional shoreline and wetland acreage from willing sellers to consolidate public ownership, especially of wetlands east of Highway 101 at Big Lagoon (1).

Acquire land along the Little River from willing sellers for restoration or enhancement purposes (1).

Humboldt County/Eureka Plain HU

Implement the existing U.S. Fish and Wildlife Service plan for acquisition and management of lands with the approved boundary of the Humboldt Bay National Wildlife Refuge (1).

Humboldt County/Eel River HU

Support the acquisition of conservation easements in the lower Eel as an incentive for landowners to conserve and enhance habitat (1).

Mendocino County/Mendocino Coast

Acquire fee and/or easements to protect the Elk Creek estuary (1).

SYNTHESIS OF GOALS, RECOMMENDATIONS, ACTIONS (continued)

Coastal Access

A complete assessment of coastal access priorities for the region is documented in the *Completing the California Coastal Trail* report (California State Coastal Conservancy, January 2003). These same priorities were later adopted into the Conservation Prospects for the North Coast. For this synthesis, only those coastal access projects that are located in the coastal zone, or specifically connect terrestrial and marine resources (trails from inland to the coast) are presented.

Recommendations by Hydrologic Unit

Del Norte County/Smith River HU

Design and build multi-use trails across Point St. George headland, connecting Crescent City with Tolowa Dunes State Park (1).

Complete pedestrian and bicycle improvements in Crescent City Harbor Trail Study (1).

Humboldt County/Trinidad HU

Connect the Hammond Trail from Scenic Drive to Clam Beach County Park (1).

Humboldt County/Eureka Plain HU

Support the implementation of the Humboldt Bay Trails Feasibility Study to develop a continuous trail system around the east side of Humboldt Bay (1).

Work with private landowners to acquire public access rights from willing sellers at several locations from Centerville Beach to Cape Mendocino (1).

Mendocino County/Mendocino Coast

Work with private landowners to acquire (1):

- Fee and/or easements to protect agricultural, biological and scenic resources identified in the Mendocino County Coast Conservation Plan in and around the Ten Mile estuary, as well as between Point Arena and Manchester.
- Public access rights and improve a trail corridor connecting Usal Road and Westport-Union Landing State Park
- Coastal Trail access easements along the Usal Creek/Rockport coastal terrace
- Public Rockport Beach access, as well as biological and forest resource easements.
- Public access rights along the bluffs from Albion Cove and the Albion Headlands
- Public access rights and improve a trail corridor connecting Manchester State Beach and the Point Arena Pier
- Easements to secure a looped public trail system around Fort Bragg.
- Easements to secure a trail or wildlife corridors between parks and preserves in the Caspar Creek, Little River, and Albion watersheds.

Secure better beach access at the Elk Creek estuary (1).

With landowners design a public trail from Navarro River State Park to and along the Navarro beach headlands (1).

REGIONAL GAPS IDENTIFIED BY CATEGORY

After careful review of the existing recommendations, above, regional gaps in information and recommendations were determined. This was done using expert opinion from the Linking Land and Sea planning and advisory teams, information gathered from the needs assessment survey and questionnaire, and gaps identified within the three regional plans described above. Gaps specific to Hydrologic Units were not identified as this was beyond the scope of this project.

Collaboration/Partnerships/Private Landowners

Regional Gaps

1. While there are a lot of recommendations regarding working with or in partnership with private landowners there are no recommendations on how to make these partnerships work for the landowner. There is a lack of analysis regarding how to make conservation of coastal resources on private lands economically viable/desirable for the landowner either through better incentives or development of niche markets related to “green” products Throughout the Pacific Northwest there are a number of successful projects that build on the organic foods market idea, that is that consumers are willing to pay more for products that are “friendly” to the environment. Wines that utilize viticulture techniques that protect riparian areas and reduce water consumption are now marketed with a “fish friendly” seal. There is also a lack of specific criteria for prioritizing which landowners specifically to work with (size of property, location, types of resources etc.) on conservation projects.
2. There are very limited recommendations related to collaboration or cooperation with tribes. This is a significant gap for this region as tribal entities are actively involved with numerous coastal conservation issues and projects; have been stewards of these resources for thousands of years; hold historic and place-based knowledge; and maintain sacred connections to sites both on land and sea. The connection of people to the land is key to future conservation and the tribes have that connection.
3. Recommendations for collaboration and partnerships with resource user groups other than landowners are lacking. This includes fisherman, water districts, developers, recreational groups etc.
4. Environmental groups, smaller non-profits, and watershed groups are not specifically mentioned in recommendations and goals in these plans. Yet they often do the bulk of the implementation and protection work in the region. Because of the large number of these types of groups it would be unwieldy to mention them all, and establishing partnerships with larger organizations makes sense on a regional basis. However at the site specific, local watershed scale it is necessary to work with these types of organizations and to support their continued existence. There is a good database of

existing groups in the Conservation Prospects document, and the Linking Land and Sea project has added to and updated this list.

REGIONAL GAPS IDENTIFIED BY CATEGORY

Collaboration/Partnerships/Private Landowners (continued)

5. Improving communications and coordination among conservation groups, agencies, landowners, land managers, restorationists and individuals was not specifically noted in the plans. It is difficult for these diverse organizations to keep track of land use changes (acquisition, easements) and the numerous projects that are being planned for, designed, permitted, and implemented. There are often times when chances are missed to join projects together to make them more effective and efficient. Coordinated resource planning groups do exist in the region and should be looked to as one option for better coordination of efforts (such as Pacific Coast Joint Venture, Humboldt Dunes Forum, Smith River Coalition).
6. Cooperation and collaboration between government entities (local, state, federal) and within government entities is needed throughout the region. There are recommendations in the plans reviewed that identify the need for cooperative management between agencies, but there is also a need for coordination within agencies, especially those that have multiple divisions. Improving coordination between divisions within government agencies (eg between regulatory branch and the habitat branch) would be helpful for land managers and implementing organizations.
7. Recommendations for coordination or collaboration that specifically addresses the land-to-sea continuum do not exist.
8. Regional prioritization plan for coastal conservation projects.

Planning/Strategies

Regional Gaps – there were no region wide recommendations for plans or strategies. Based on the review of the existing assessments and stakeholder input the following would be useful.

1) The existing regional terrestrial plans/assessments do a good job of integrating information from a diversity of sources and from other existing plans/assessments. Once these and other conservation and management documents have been completed there is a need to do a more comprehensive and coordinated outreach effort to help people to utilize them. The planning effort is often deemed complete once the written document is printed. However, many people, including those who work in the Northern California conservation field, do not know what plans are out there, what they include, or how local projects may contribute to the recommended actions. More education regarding existing plans is needed. An ongoing system to catalogue, summarize, organize and query existing plans would be very useful. The most recent catalogue

of plans/assessments for the region can be found in The Conservation Fund's *CONSERVATION PROSPECTS FOR THE NORTH COAST*. This catalogue is set up so that it can be queried by key words. This catalogue would be easy to update and is the most comprehensive for the region.

REGIONAL GAPS IDENTIFIED BY CATEGORY

Planning/Strategies (continued)

- 2) While most of the major watersheds (with the exception of the Mad River) have some type of plan, the small coastal watersheds are not well covered. These small coastal streams are important land-sea links.
- 3) Many of the existing coastal conservation plans need specific implementation strategies.
- 4) Regional models that forecasts trends are needed. What are the possible outcomes if certain trends continue – such as global warming, sea level rise, salmonid population decline, etc.
- 5) More in-depth analysis of economic and sociological parameters that influence land use decisions, community support for coastal conservation, resource allocations, would help conservation organizations to be more effective in their work.

Restoration/Enhancement

Regional Gaps – The existing plans have comprehensive recommendations regarding restoration priorities both on a regional scale and by hydrologic unit.

- 1) A recommendation to protect and restore water quality flowing into estuaries, bays, lagoons, and sensitive habitats is missing.

Studies/Research/Data

Regional Gaps – The existing plans used in this synthesis did not have many specific recommendations for new research or data acquisition. Based on the review of the existing assessments and stakeholder input the following would be useful.

- 1) Although there is a large amount of data and information regarding the region's terrestrial coastal resources, it is difficult to access because it is located in so many different places, in varied formats, and is hard to find (you have to know it exists first to be able to go looking for it). A centralized data system with spatial data, is needed. There are several systems that are all in some stage of development including Klamath Resource Information System (KRIS), California Cooperative Fish and Habitat Data Program (CalFish), Information Center for the Environment (ICE), Center for Integrative Coastal Observation Research and Education (CICORE). Each of these systems has a specific focus on types of

information, geographic location, or has yet to be filled with information. In addition, keeping the database up to date is difficult.

REGIONAL GAPS IDENTIFIED BY CATEGORY

Studies/Research/Data (continued)

- 2) A statewide data base on presence of salmonids in all coastal streams and reliable data on population abundance in coastal streams are not available (3). However, there is a current effort to develop this information being conducted by Stillwater Sciences.
- 3) Other data gaps include: Native shell fish distribution; benthic habitat mapping; regional threats for marine resources; ecological impacts of altered sediment regimes on coastal water bodies; impacts of non-point source (NPS) pollution such as stormwater runoff on rocky intertidal areas; wildlife corridors and connectivity; and ecological trends and baselines.

Outreach/Education

Regional Gaps - There are no outreach/education recommendations for the region in any of the assessments.

- 1) Outreach, education and interpretation are necessary to connect people to place and develop a sense of stewardship for coastal resources. If people can make an emotional connection to place they will support its conservation. We need more ways to connect to the environment, for example the numerous campaigns and education programs regarding the California Grey Whale has created a desire in the main stream population to protect this creature and its habitat.
- 2) There is a need for access to conferences, opportunities for peer learning, and focused coastal conservation educational opportunities.
- 3) Conservation organizations in the region need assistance with the development of interpretive materials and displays.
- 4) Because the population base in the region is small, and decisions concerning the region are often made by voters in large population centers there is a need to “market” the value of the north coast resources in population centers and with state decision makers.

Government Policies, Regulations, Land Use Planning

Regional Gaps – There are several recommendation for working with county governments to update general plans and local coastal plans; maintain current zoning for agricultural lands; strengthen regulations; and protecting open space.

- 1) There is a lack of funding for government staff to ensure that existing regulations are understood and followed. Enforcement of existing regulations needs to be improved.

REGIONAL GAPS IDENTIFIED BY CATEGORY

Government Policies, Regulations, Land Use Planning (continued)

- 2) Additional fiscal resources and staffing are needed to regularly update, and better implement and enforce Local Coastal Plans
- 3) The permitting process (and level of staffing) for work in the coastal zone needs to be updated to make the process, specifically the application process, more efficient and appropriate for the conservation measures desired.
- 4) Water quality policies need to include language that directly connects the coastal zone and drainages for terrestrial and marine resources.
- 5) There is a gray zone where land meets the sea in regards to regulations. There needs to be better coordination among jurisdictions so the lines and responsibilities are clearly understood.
- 6) Other needs include: permit assistance center, improved incentives for landowners and resource users, and a regional funding mechanism for conservation activities.

Land Protection/Acquisition/Easements

Regional Gaps – The existing plans identify a number of specific acquisition projects by hydrologic unit, and regional priorities.

- 1) Operation and maintenance resources for lands that are already in public ownership, or under management by conservation organizations are difficult to acquire and a major need. The level of tourist visitation to many coastal areas is increasing and the budgets available to meet the needs of so many visitors cannot be raised on a local level.
- 2) A local funding mechanism, such as an open-space district is needed for the region.

Coastal Access

Regional Gaps – there are no regional recommendations for coastal access in the 3 assessments we reviewed. However, the *Completing the California Coastal Trail*, (California State Coastal Conservancy, January 2003) contains numerous recommendations.

Integration of Terrestrial Plan Synthesis into Final Report

The results of this synthesis of existing regional terrestrial conservation plans for Del Norte, Humboldt, and Mendocino Counties will be analyzed along with the results of the Linking Land and Sea needs assessment survey and questionnaire, the marine plan synthesis, and expert input from the Planning and Technical Advisory Teams. Together these sources for identifying needs for coastal conservation will be integrated into the final report on results of Linking Land and Sea: A Regional Coastal Conservation Needs Assessment. .