

Humboldt County Coastal Trail Implementation Strategy

Technical Appendix

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State of California Coastal Conservancy

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TECHNICAL APPENDICES

Thank you to the community members and agency staff who provided input during public meetings and advisory team workshops throughout the planning process. Your participation and contributions are key to this and future efforts to bring the CCT to fruition.

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All other photos by project team

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Appendix A: Project Partners

The general roles, responsibilities and functions of project partners are described below. Each organization's relation or interest in the CCT is also described. Relevant plan summaries, permitting requirements and design standards of each entity are discussed in Appendix F: Plan & Policy Review, and Appendix H: Design Standards Review.

Primary Partners

Federal Agencies

Bureau of Land Management (BLM)

The Bureau of Land Management is under the purview of the U.S. Department of the Interior. The BLM manages public lands for multiple uses, including travel management planning for all forms of transportation (pedestrian, equestrian, bicycles, boats and motorized vehicles). The Arcata Field Office is responsible for the administration of public land in Northwestern California. The managed area includes the 60,000 acre King Range National Conservation Area (KRNCA), trailheads along the coast west of Ferndale off of Centerville Road, and other land holdings outside of the coastal zone. The field office also oversees the "California Coastal National Monument" interpretation program in cooperation with several other local jurisdictions.

The KRNCA has additional support staff dedicated to the management of that specific landholding. The management of resources in the KRNCA is guided by the Resource Management Plan (RMP). RMPs are the basis for all actions taken by the BLM that affect public lands and mineral resources and are typically in place for fifteen to twenty years.

There are three management zones designated in the KRNCA, with the Lost Coast trail managed under the Backcountry zone. The Lost Coast Trail is designated as National Recreation Trail. The Lost Coast trail follows approximately thirty-seven miles of coastline within the KRNCA, with the remaining nineteen miles located within the Sinkyone Wilderness State Park. The Backcountry zone is a primitive undeveloped coastal area where only non-mechanized activities are appropriate. Minimal facilities allowed are trails, signs and primitive sanitary facilities. Resource management objectives are to be achieved with hand-tools, with any facility developments designed and built to incur as little impact as possible.

The KRNCA plan summary, permitting requirements and trail standards can be found in Appendix F: Plan & Policy Review, and Appendix H: Design Standards Review. The full plan is available online at:

www.blm.gov/ca/st/en/fo/arcata/kingrange/planning/king_range_plan.html

U.S. Fish and Wildlife Service (USFWS)

The U.S. Fish and Wildlife Service is a bureau within the Department of Interior. The USFWS enforces federal wildlife laws, protects endangered species, manages migratory birds, restores significant fisheries, and conserves and restores wildlife habitat (i.e. wetlands). Local landholdings include Lanphere and Ma-le'l Dunes and the Humboldt Bay National Wildlife Refuge located at the southern end of Humboldt Bay. The USFWS has a coastal program (www.fws.gov/coastal/CoastalGrants/index.html) whose mission is “To efficiently achieve voluntary habitat conservation through financial and technical assistance for the benefit of Federal Trust Species.” The USFWS Arcata office has partnered with the California Department of Fish and Game on restoration projects in Humboldt County. The USFWS is also engaged in a joint management and environmental review process for recreation in the Ma-le'l Dunes area with the Bureau of Land Management. The USFWS supports the National Recreational Trail program and manages trails in National Wildlife Refuges.

www.fws.gov/humbolddbay/

The USFWS permitting process is outlined in Appendix F: Plan & Policy Review of this document.

U.S. National Park Service (NPS)

The NPS is a bureau of the Department of Interior. The NPS manages national parks, monuments, and other historical and conservation properties with various designated titles. The NPS partners with Indian tribes, state and local governments, nonprofit organizations, private citizens and other partners to build trails and preserve open spaces and outdoor recreation places. The NPS has a grant program that has awarded over \$1 billion for preservation projects in the United States. The NPS supports the national recreation trails program (www.nps.gov/nrt/) and oversees the National Trails System Office. Locally NPS manages the land and recreational facilities of Redwood National Park and has a strong funding and management relationship with California State Parks and their property located along the coast of northern Humboldt County.

The NPS permitting process and trail standards, using the recently approved “Redwood National Park Trail and Backcountry Management Plan,” is reviewed under Appendix F: Plan & Policy Review, and Appendix H: Design Standards Review. The full plan is available at: www.nps.gov/redw/parkmgmt/planning.htm

U.S. Army Corps of Engineers

The U. S. Army Corp of Engineers regulates the discharge of dredged, excavated, or fill material in wetlands, streams, rivers, and other U. S. waters through the issuance of Section 404 permits. Section 404 of the Clean Water Act requires the Corp to evaluate and manage development activities in U. S. waters through a permitting process. The Corps environmental program has two major focus areas: protection and restoration, and stewardship. The Corps is a partner in Coastal America Partnership along with other federal, state, local and corporate partners. The Corps also manages a number of trails in the National Trails System.

www.usace.army.mil

The Corps permitting process is outlined in Appendix F: Plan & Policy Review.

State and Regional Entities

California Coastal Conservancy

The California Coastal Conservancy (Coastal Conservancy) is a state agency that was created to oversee and develop the California Coastal Trail (CCT) and other coastal public access opportunities. The Coastal Conservancy awards grants to public agencies and non-profit organizations to acquire land or to develop, operate, or manage lands for public access purposes along the coast. Grants can also be awarded to establish and expand inland trails that connect to the CCT.

The Coastal Conservancy regularly collaborates with a number of state agencies, including the Coastal Commission, Caltrans, and California State Parks to coordinate the development of the CCT.

www.scc.ca.gov

California Coastal Commission

The California Coastal Commission is a quasi-judicial state agency that plans and regulates the use of land and water within the coastal zone and administers the federal Coastal Zone Management Act and the California Coastal Management Program. The California Coastal Commission has limited regulatory control over federal activities in the coastal zone, including but not limited to U. S. Army Corp of Engineers permits, some U. S. Fish and Wildlife permits, national park projects and highway improvement projects constructed with federal funds.

The California Coastal Commission works with local governments and counties to assure that Local Coastal Programs (LCPs) are consistent with Coastal Act policies. LCPs include a land use plan and an implementation program and are focused in part on the coastal development permitting process and how development will interact with the preservation of coastal public access. Development within the coastal zone may not commence until a coastal development permit has been issued by either the Commission or a local government that has a Commission-certified local coastal program.

The California Coastal Commission also partners with agencies such as the Coastal Conservancy, State Lands Commission, California State Parks, and others to implement the Coastal Access Program (www.coastal.ca.gov/access/accndx.html). The Coastal Access Program is based on the goals of the California Coastal Act to maximize public access and recreational opportunities to and along the coast.

www.coastal.ca.gov/whoweare.html.

An overview of the Commission's permitting process is in Appendix F: Plan & Policy Review.

California Department of Transportation (Caltrans)

Caltrans manages California's highways, freeways, and several other transportation systems and services. The Pacific Coast Bike Route on US 101, traveling through Humboldt County, is in Caltrans' right-of-way and under the jurisdiction of Caltrans District 1. The District 1 bicycle touring guide (www.dot.ca.gov/dist1/d1transplan/bikeped/bikeguide/) includes California bike laws, safe hand signals, route maps and a bike guide that explains the meaning of signage along the route. Caltrans maintains the Pacific Coast Bike Route, which overlaps with several sections of the interim CCT bike alternative route. Caltrans also administers many funding opportunities including Community Based Transportation Planning Grants, Transportation Enhancement (TE) Programs, and the Bicycle Transportation Account.

Any proposed trail or path improvements within Caltrans right-of-way will require an encroachment permit and project review by the agency at the district level, and potentially a statewide level. Caltrans may be able to consolidate a number of planned and designed encroachments within a single jurisdiction under one blank permit. Improvements must be constructed to Caltrans standards in order to be eligible for non-motorized transportation funding grant programs.

The permitting overview is located in Appendix F: Plan & Policy Review.

www.dot.ca.gov/

California State Parks

California State Parks manages over 270 park units in the state and a number of state parks in Humboldt County. California State Parks planning division has a Statewide Trails Section that "provides education and technical assistance to trail managers, recreation providers, open space managers and non-government trails and greenways advocates on non-motorized trail planning, design, construction, funding and management."

California State Parks offers a trail managers toolbox on their website at: www.parks.ca.gov/?page_id=23419

The webpage has links to a number of resources such as funding and grant opportunities, trail use research, economic impact of trails, trail condition assessment tools and maintenance, and state park trail policies. Funding programs through California State Parks can be found at: www.parks.ca.gov/?page_id=1008.

www.parks.ca.gov

California Department of Fish and Game (DFG)

The DFG is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources both as a regulatory agency and a land manager. This includes waterways with intermittent flow and ephemeral streams, desert washes and watercourses. To meet this responsibility, the Fish and Game Code (Section 1602) requires an entity to notify DFG of any proposed activity that may substantially modify a river, stream, or lake through a completed notification form. If the DFG determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. DFG is also responsible for regulating hunting and fishing and works with other agencies to prevent the unmitigated take of a state or federally listed species.

www.dfg.ca.gov/

North Coast Railroad Authority (NCRA)

The NCRA, with a headquarters in Ukiah, was established by the North Coast Railroad Authority Act in 1989 to preserve and restore rail service in the North Coast region. Although the NCRA has not received public funding for operational responsibilities, it has established a public/private partnership with NCP Co. in 2006 to lease, manage and operate trains on the Northwestern Pacific Railroad (NWP) line. The NCRA controls use of a contiguous corridor of land traveling from Arcata around the east side of Humboldt Bay, south along the Eureka waterfront, and farther south through Loleta and connecting to the Eel River canyon.

The NCRA supports bike and pedestrian paths within its right-of-way as long as these facilities do not conflict with future plans to restore rail service along a specific corridor. Trail proposals submitted by public agencies are reviewed and approved on a case-by-case basis by the NCRA Board of Directors. NCRA draft trail guidelines can be found in Appendix F: Plan & Policy Review of this document.

www.northcoastrailroad.org/

Local Governments and Public Entities

County of Humboldt

Humboldt County covers 2.3 million acres in northwest California. Eighty percent of the land is forested, including protected redwood preserves and recreation areas. The closest major metropolitan city is Santa Rosa, 150 miles to the south. The County of Humboldt has jurisdiction over the unincorporated areas of the county and provides a wide range of support including law enforcement and road maintenance. Trail development efforts need to coordinate with both the Public Works and Community Development Services Departments.

The Humboldt County Public Works Department maintains and manages County roads, trails, and parks and also provides leadership in trail development. Public Works manages the Hammond Coastal Trail and the Redwood Creek levees, both of which are key segments in the recommended Humboldt Coastal Trail route. Public Works prepares engineered plans, obtains regulatory permits, and prepares environmental documents. Public Works is the Humboldt County department responsible in the three-party agreement concerning the

management of the Hammond Coastal Trail along with Redwood Community Action Agency and the State Coastal Conservancy.

The Humboldt County Community Development Services Department is charged with protecting public health, safety, and welfare through building permit review and inspection, planning and development review and approval, maintaining the County's general plan, and administering economic development grants and programs. The Community Development Services Department was mandated to establish policies in accordance with the Coastal Act of 1976. The county is responsible for administering the Local Coastal Program and partnering with the Coastal Commission to plan and regulate the use of land and water in the coastal zone. The department also administers natural resources grants. Two divisions of the Community Development Services Department that are pertinent to the California Coastal Trail are:

The Natural Resources Planning division was created in 2005 to provide staff support for the Board of Supervisors. The division is primarily grant funded and focuses on water, agriculture, forestry, environmental restoration and habitat conservation projects. The division collaborated with regional entities to create the North Coast Integrated Regional Water Management Plan (www.northcoastirwmp.net/).

The Planning Division ensures land use development reflects the policies of the General Plan and various community plans. The building permit review and inspections make sure that county codes and ordinances are in compliance. The Planning Division also facilitates public input on proposed projects.

Information about the County of Humboldt and the Community Development Services and Public Works departments can be found at: co.humboldt.ca.us/portal/general_info.asp

Humboldt County Association of Governments (HCAOG)

HCAOG is a Joint Powers Agency that represents the seven incorporated cities (Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad) and the County of Humboldt. HCAOG is the Regional Transportation Planning Agency, making it responsible for implementing the Regional Transportation Plan (RTP). In addition to the RTP, HCAOG has a number of transportation related plans and studies, which include:

- Regional Trails Master Plan
- Bicycle Transportation Plan
- Regional Pedestrian Needs Assessment Survey

HCAOG is comprised of several committees that each provide different levels of guidance on planning, funding, and implementation decisions. HCAOG channels funding to various transportation-related projects throughout the county and is responsible for coordinating local transportation needs with a variety of local, state, and federal funding sources.

www.hcaog.net/

Humboldt Bay Harbor, Recreation and Conservation District

The Humboldt Bay Harbor, Recreation and Conservation District (Harbor District) was a district specifically created to manage the tidelands, harbors, bays, and estuaries in Humboldt County according to the Humboldt Bay Harbor, Recreation, and Conservation Act (1970). The Harbor District is a county-wide agency with permit jurisdiction over tidal, submerged and other lands, including Humboldt Bay. Currently the Harbor District considers its jurisdiction to be below the mean high tide mark except in the case of maintenance issues on certain levees in the Humboldt Bay area and any other lands granted to the district. The Harbor District is governed by five elected officials.

The Harbor District is charged with promoting the port development projects and programs, which include marketing the port marketplace. The Harbor District also develops recreation facilities like trails, water trails and interpretative signage. The protection and conservation of the natural resources of Humboldt Bay is also an important role for the Harbor District.

The Harbor District coordinates its activities through an Interagency Coordination Committee.

www.humboldtby.org/

City of Arcata

The City of Arcata is the second-most populous city in the County and is located on the north of end of Arcata Bay. Arcata is about eleven square miles in area, with approximately 1.9 square miles of that area covered by water. Arcata has a mayor-council government. Arcata has a number of pertinent plans to CCT development, including the Arcata Pedestrian and Bicycle Master Plan (2010), the Arcata General Plan: 2020 (2010), the Arcata Parks and Recreation Plan (2010) and the City of Arcata Goals 2009/2010

The City has identified several coastal trail routes and regional connections and has specific design standards for the downtown area. The City recently planned a trail traveling along the rail corridor from within the city to the Bracut Marsh. Summaries of the above plans are located in Appendix F: Plan & Policy Review, with Arcata's design standards in Appendix H: Design Standards Review.

www.cityofarcata.org/

City of Eureka

The City of Eureka is the largest city in Humboldt County. Eureka is at the most central point of Humboldt County's coastline, with Humboldt Bay forming the western border of the city. Eureka's boundaries encompass about 14.4 square miles, with just under thirty-five percent of the area covered by water.

Eureka has a mayor-council government, a Community Development Department, and a Planning Commission that is responsible for current, long-range, and environmental planning. Eureka's General Plan has a few policies regarding bicycle facilities and specific recommendations on a waterfront trail. The city is currently working with other jurisdictions, funding sources, developers, and the public to develop the Eureka waterfront and create a connected trail system that runs along Humboldt Bay.

Eureka has an Open Space, Parks and Recreation Commission with a seat representing the now disbanded Eureka Trails Committee. The Trails Committee was formed to research and recommend trail development opportunities to the City Council. The members of that committee formed the Trails Trust of Humboldt Bay and advocated for the creation of the Transportation Safety Commission. One of the outcomes of the trails committee was the Eureka Trails Committee Waterfront Trail & Promenade Recommendations (2005) report prepared by the Natural Resources Services Division of Redwood Community Action Agency. The relevant portions of the General Plan and a summary of the Eureka Trails Committee Waterfront Trail & Promenade Recommendations are in Appendix F: Plan & Policy Review. Trail design standards are located in Appendix H: Design Standards Review.

www.ci.eureka.ca.gov/

City of Ferndale

Ferndale is one of the smallest cities in the County, with the city boundary taking in one square mile. Ferndale lies twenty miles south of Eureka and is a gateway to the Lost Coast (King Range National Conservation Area). Ferndale is known as the “Victorian Village” and has a vibrant tourism and agricultural economy. The City of Ferndale has a council-manager form of government. The City has a Circulation Element in the General Plan which addresses transportation needs within the City. Although surrounded by the coastal zone on three sides, the City of Ferndale itself is not in the coastal zone.

ci.ferndale.ca.us/

City of Fortuna

The City of Fortuna has a total area of just under five square miles in west-central Humboldt County. The city is on the northeastern shore of the Eel River and on US 101.

Fortuna has a mayor-council form of government and a planning department. The city does not have a history of planning or constructing trails. Fortuna is outside of the coastal area (except for a portion of one city parcel along the Eel River), with no direct access to the CCT. For Fortuna to connect to the CCT, a trail would need to be developed in North Coast Railroad Authority’s right-of-way.

www.friendlyfortuna.com/

City of Trinidad

Trinidad is in the northern part of Humboldt County, between McKinleyville and Orick, and is the smallest incorporated city in the county, with just under one square mile within city limits and a population of around 300 people. Trinidad has a council-manager form of government with only a handful of employees, and the city contracts with outside consultants for most professional services including planning, engineering, building, legal and police services. The City is in the Coastal Zone and operates under the first Local Coastal Plan to be certified in the state. The City is currently updating its General Plan, which includes a recreation element and trails plan.

Trinidad offers many opportunities as well as constraints in terms of coastal trails and recreation. Most of the northwestern portion of the City is part of the Trinidad State Beach. There are at least four public beaches contained within City limits along with a pier, boat launch, and mooring field. The City has a well-developed trail system that provides coastal access throughout the City and a large, publicly owned coastal headland (Trinidad Head). Trinidad is a 'Gateway City' to the California Coastal National Monument; it also contains and is bordered by the state-designated Trinidad Head Area of Special Biological Significance / State Water Quality Protection Area. The main constraints to trail development include private property issues, unstable bluffs and cultural resources.

www.trinidad.ca.gov/

Orick Community Services District

The Orick Community Services District (CSD) serves the community of Orick in unincorporated Humboldt County. Orick has a Community Plan that is part of the Humboldt County General Plan, and part of Orick in the coastal zone is under the regulatory authority of the Northcoast Area Plan segment of the Humboldt County LCP. The Community Plan does not address trails or circulation goals, but does address general community design goals.

The Orick CSD manages wastewater and fire protection within Orick but also interacts with the County regarding decisions affecting the community of Orick. Orick CSD also seeks funding for the community through grants such as an Environmental Justice grant through Caltrans to implement traffic calming and streetscape revitalization on US 101 through Orick. Although Orick CSD does not have any specific plans and policies regarding the CCT, they are highly interested in any project that would enhance economic and recreational opportunities within Orick.

Manila Community Services District

Manila Community Services District (CSD) serves the community of Manila on the Samoa Peninsula by providing services including water, sewer, recreation, and parks with beach and bay access. The District has a community center, which offers information and education to assist parents and families, and works to protect, restore, and provide access to natural resources. The Manila CSD represents the community's interests to the larger community. The CSD manages dune trails on the Samoa Peninsula that serve as coastal access trails from the primary CCT route.

www.manilacsd.com/

Westhaven Community Services District

Westhaven Community Services District (CSD) provides services to the community of Westhaven, southeast of the City of Trinidad, and represents interests of Westhaven residents to the larger Humboldt County community. Westhaven CSD is very interested in developing a non-motorized link over the Little River to connect the Westhaven community with the Hammond Trail and the greater Humboldt Bay area.

Tribes and Rancherias

Yurok Tribe

The Yurok Tribe is a federally recognized tribe whose ancestral lands extend from the Little River in Humboldt County to Damnation Creek in Del Norte County and reservation lands lie along the lower Klamath River. The Yurok tribe provides consultation on cultural resource issues on projects within the coastal zone. The tribe assisted the CCT planning effort in understanding cultural resource constraints at Little River, Gyon Bluffs, and other locations along the coast through which we considered a CCT alignment.

www.yuroktribe.org/

Trinidad Rancheria

The Cher-Ae Heights Indian Community of the Trinidad Rancheria is a federally recognized tribe located near the City of Trinidad. The Trinidad Rancheria has active social and cultural programs, business enterprises and services for tribal members. The tribe has ancestral ties to the Yurok, Tolowa, and Wiyot native cultures. The Trinidad Rancheria has transportation and pedestrian trail plans and is very interested in improving access from the Rancheria to the City of Trinidad and also improving coastal access for tribal members. The Trinidad Rancheria also aided the CCT planning team with cultural resource considerations.

www.trinidad-rancheria.org/

Wiyot Tribe

The Wiyot Tribe is a federally recognized tribe whose ancestral territory lies around Humboldt Bay from the mouth of the Mad River to the lower Eel River basin. The Wiyot Tribe reservation lies on Table Bluff south of Humboldt Bay, and the tribe also owns forty acres of Indian Island off Eureka in Humboldt Bay. The Wiyot Tribe is interested in gaining access to Department of Fish & Game land adjacent to the South Jetty but is not interested in developing public access through the reservation. The tribe assisted the CCT planning team in understanding tribal concerns and potential cultural resource issues.

www.wiyot.com/

InterTribal Sinkyone Wilderness Council

The InterTribal Sinkyone Wilderness Council was founded in 1986 to re-establish local Indian stewardship in the Sinkyone region. This environmental consortium created the 3,845 acre InterTribal Sinkyone Wilderness to promote habitat conservation and support traditional cultural land use and resource management. Ten federally recognized Northern California tribes are represented in the Council by an appointed delegate. Member tribes include: the Coyote Valley Band of Pomo Indians; Redwood Valley Band of Pomo Indians; Sherwood Valley Band of Pomo Indians; Hopland Band of Pomo Indians; Potter Valley Band of Pomo Indians; Pinoleville Band of Pomo Indians; Scotts Valley Band of Pomo Indians; Robinson Rancheria; the Cahto Tribe, and the Round

Valley Indian Tribes. The Council does not have a planning department responsible for planning and developing trails. However, the Council is in the process of preparing a trail plan with the assistance of a retired California State Parks planner.

The main route of the CCT will not be located in the Wilderness area. The Council has goals for three east-west trails to connect to the Lost Coast Trail in the Sinkyone Wilderness State Park, but not to the CCT specifically.

www.treesfoundation.org/affiliates/specific-22

Big Lagoon Rancheria

Big Lagoon Rancheria is a federally recognized tribe of Yurok and Tolowa Indians whose reservation is located adjacent to Big Lagoon. The Rancheria extends services to its members and also has several business enterprises. The CCT planning team engaged with the Rancheria regarding the routing of the CCT around Big Lagoon and other coastal areas.

Other Organizations

Coastwalk

Coastwalk is a state-wide nonprofit organization that seeks to ensure the right of all people to reach and responsibly enjoy the California coast. Coastwalk has been instrumental in advocating and supporting the creation of the CCT along the entire coast of California. Coastwalk contributed to the guiding document to assist the State Coastal Conservancy in completing the CCT, published the first hiking guide for the CCT, and continues ongoing efforts to sign and complete the CCT. Coastwalk is currently installing CCT signage along completed CCT route segments throughout the state.

www.coastwalk.org/

Friends of the Dunes

Friends of the Dunes (FOD) is a nonprofit that manages 113 acres of coastal dune property on the Samoa Peninsula and also actively involves the community in the conservation of coastal environments. FOD hosts regular volunteer dune restoration days. FOD is best known for coastal ecosystem restoration, education programs and guided walks. FOD helped the CCT planning team understand issues of trails and public access through dune environments and their experience with the coastal development permit process and recreation. Trails through the FOD property serve as important coastal access trails from the primary CCT. FOD is actively pursuing a partnership with BLM and USFWS to connect the Ma-le'l Dunes property with the FOD landholdings and form a contiguous trail system.

www.friendsofthedunes.org/

Humboldt North Coast Land Trust

The Humboldt North Coast Land Trust (HNCLT) is a locally operated nonprofit organization dedicated to protecting the natural beauty and character of the coastal areas of Northern California. The HNCLT owns forty acres and holds five easements along the coast from Little River to Big Lagoon. The HNCLT hopes to link its holdings along the coast through a combination of existing roads and new trails, including the development of a trail linking the south and north banks of the Little River.

www.hnclt.org/

Northcoast Regional Land Trust

The Northcoast Regional Land Trust is a nonprofit organization with a focus on protecting land and water on nearly five million acres on California's North Coast. The Land Trust helps to protect and restore wild and working lands through easements and conservation planning with landowners. The Land Trust is beginning to experiment with trails, trail facilities, and public access within their landholdings and is working with state agencies to ensure the proper planning of these facilities as a model for future trail development. The Land Trust manages property, which the Coastal Conservancy helped to purchase, that straddles the lower end of the Redwood Creek levee system in Orick. Although the Land Trust is not currently developing that parcel for public access, future plans for the site could connect with the CCT on the adjacent levee.

ncrlt.org/

Audubon Society – Redwood Region Chapter

The Redwood Region Audubon Society (RRAS) is a volunteer, nonprofit organization with approximately 550 conservation-minded members. RRAS works to protect, restore and preserve natural ecosystems and also leads birding and nature walks through the region. RRAS worked with the State Coastal Conservancy to acquire Parcel 4 on the Eureka Waterfront. RRAS is currently developing a management and public access plan for this property which will consider a variety of interests including public access, habitat restoration and species protection, safety, and education/interpretation opportunities. Parcel 4 trails will be coordinated with the city's waterfront trails. Future development of trails in Parcel 4 could tie into the primary CCT route along the Eureka Waterfront.

www.rras.org/about_rras.htm

McKinleyville Land Trust

The McKinleyville Land Trust (MLT) is a nonprofit that promotes the voluntary conservation of land for nature, timber, agriculture, education, recreation, history, and scenery. The MLT manages two parcels in the community of McKinleyville, including the eighty acre Mad River Bluffs property which provides a connection from the Hammond Trail section of the CCT to the mouth of the Mad River. The MLT has a goal of increasing public access opportunities to the Mad River and will be improving trails and adding interpretative signage to the Mad River Bluffs property during the summer of 2010.

www.ltanet.org/findlandtrust/one.tcl?pc_id=125936

Mattole Restoration Council

The Mattole Restoration Council (MRC) is a nonprofit community-led watershed restoration organization whose mission is to understand, restore, and conserve the ecosystems of the Mattole River watershed, with attention to threatened Coho and Chinook salmon and steelhead. The MRC works with landowners to manage well-maintained roads, encourage appropriate forest management, and restore natural systems in the Mattole River watershed. The MRC works with hundreds of private landowners, resource management agencies, and other local conservation organizations such as the Mattole Salmon Group and Sanctuary Forest. As a community-led organization, the MRC understands the interests of residents in the Mattole Valley and assisted the CCT planning team in considering local sentiment towards public access and trail development.

www.mattole.org

Secondary Partners

State and Regional

California State Lands Commission (CSLC)

The California State Lands Commission has wide-ranging mandates for the protection of California's natural environment. The Commission is comprised of two statewide elected officials and one appointed member of the Governor's cabinet. The CSLC has jurisdiction and management control over certain state public lands, which includes the land under navigable and tidal waterways. The CSLC reviews permit applications submitted to the California Coastal Commission and the U. S. Army Corps of Engineers. An overview of the permitting/review of CSLC is in Appendix F: Plan & Policy Review of this document.

www.slc.ca.gov/

North Coast Regional Water Quality Control Board

The North Coast Regional Water Quality Control Board is a regulatory agency and one of nine regional boards. The activities of the nine regional boards are coordinated by the State Water Resource Control Board, which was

created by the California State Legislature in 1967. Each of the nine regional boards are semi-independent and their boundaries are based on watersheds.

The North Coast Regional Water Quality Control Board has jurisdiction over Humboldt, Del Norte, Trinity, Mendocino and parts of Siskiyou, Sonoma, Modoc, Lake, Marin and Glenn counties. The Board's decisions include setting standards, issuing waste discharge requirements, determining requirement compliance and taking enforcement actions. Any trail implementation along or near a water course that would require dredging or fill activities would require a permit from the Board. The Board has been involved in permitting trail projects throughout Humboldt County that meet the CEQA and Board standards.

www.waterboards.ca.gov/northcoast/

North Coast Unified Air Quality Management District (AQMD)

The AQMD is a regional public health agency with authority in Humboldt, Del Norte and Trinity counties. AQMD is responsible for enforcement of air quality regulations, promotion of clean air programs and public education. Construction activities that may cause air contaminants require an Authority to Construct Permit from AQMD. Permitting requirements can be found in Appendix F: Plan & Policy Review of this document.

As a public education effort, AQMD runs a revolving “Did You Know” announcement on their website, of which one of the messages reads: “Walking, bicycling, or taking alternative transportation to work reduces fuel consumption by 100%.”

www.ncuaqmd.org/

University of California Cooperative Extension – Humboldt and Del Norte Counties

The Cooperative Extension develops and extends the use of research-based knowledge to improve specific practices and technologies in agriculture, natural resource management, and youth development on the North Coast. The Agriculture and Forestry programs both actively engage with landowners and assisted the CCT planning team in understanding potential landowner issues regarding public access and trail development. The Cooperative Extension held an agri-tourism workshop in which the CCT planning team participated in order to engage agricultural landowners in discussions of recreation and public access on agricultural lands.

cehumboldt.ucdavis.edu/

Local Governments and Public Entities

Humboldt Bay Municipal Water District

The Humboldt Bay Municipal Water District (the District) is an agency that provides water to municipalities, residents, and businesses in the Humboldt Bay region. The District maintains waterlines for water delivery purposes and coordinates with all planning and development processes to ensure that projects do not interfere with their ability to access and service their water transmission lines and other facilities. The District only reviews trail projects when they are proposed to cross their water transmission line easements. Any trail implementation

that crosses the District's rights-of-way for transmission lines will require a permit and review by the District to make sure design and location do not interfere with their access and freedom of travel. Transmission lines running under the Samoa Peninsula have maintained access roads above them commonly used as hiking trails by local residents.

www.hbmwd.com/

Loleta Community Services District (CSD)

The Loleta Community Services District provides services to the community of Loleta, on the south slope of Table Bluff. Loleta CSD is very interested in the opportunity to increase recreation and tourism within Loleta on the rail line, as a preferred alignment of the CCT extends along the rail line through downtown Loleta.

McKinleyville Community Services District (CSD)

The McKinleyville Community Services District provides recreation, water, and wastewater services to the community of McKinleyville north of Humboldt Bay. The McKinleyville CSD manages Hiller Park, adjacent to the Hammond Trail section of the CCT, which provides a coastal access trail network from the primary CCT to the Mad River Bluffs.

www.mckinleyvillecsd.com/

Other Organizations

Humboldt Coastal Dunes Cooperative (COOP)

The Humboldt Coastal Dunes Cooperative facilitates coordination of ecosystem management of coastal dune environments in Humboldt County through collaboration between a collective group of land managers representing individual stakeholder agencies. The COOP's intention is to implement its mission of coordinated ecosystem management of coastal dune environments through education and public outreach. The general vision of a coastal trail resonates with this group, but the CCT has not been a topic of discussion for the group.

copia2.copia.net/cgi-bin/Webpage.mcgi?UF.profile=dunes1

Humboldt County Resource Conservation District (HCRC)

The HCRC is a non-regulatory agency that is funded through public grants and contracts. The HCRC provides information, technical assistance and funding to willing private landowners to plan, design, and install soil and water conservation projects in the County.

The HCRC has indicated that it is a good resource for public outreach to private landowners and has a working knowledge of the Eel River bottoms.

humboldtrcd.org/

Buckeye Conservancy

The Buckeye Conservancy is an organization of family farm, ranch, and forest landowners and resource managers in the North Coast region of California. Buckeye Conservancy is “dedicated to the promotion, communication, and implementation of those ideals and policies that support the ecologic and economic sustainability of natural resources and open space in family ownership.”

www.buckeyeconservancy.org/

Redwood Forest Foundation Inc. (RFFI)

The Redwood Forest Foundation, Inc. (RFFI) is a non-profit organization dedicated to establishing community-based forests that provide both critical habitat for increased biodiversity and improved regional economic vitality. RFFI’s mission is to acquire, protect, restore, and manage forestlands and other related resources in the Redwood Region for the long-term benefit of the communities located there. RFFI manages the Usal Forest in coastal northern Mendocino County as a working forest and is also developing a public access and trail plan. As an existing portion of the Lost Coast Trail parallels the Usal Forest, any trails developed within the Usal would likely be CCT connectors.

www.rffi.org/

Sanctuary Forest

The Sanctuary Forest is a nonprofit land trust in southern Humboldt County that owns land and holds easements in the Upper Mattole Watershed. Sanctuary Forest also leads a collaborative effort, the Upper Mattole River and Forest Cooperative (Co-op), comprised of public, private, nonprofit, state and federal organizations that jointly manages 4,000 acres in the Upper Mattole Watershed. The Co-op has discussed public access and trails and has public access as a significant section of their management plan; however, Sanctuary Forest and the Co-op operate outside of the coastal zone and would not be directly involved in CCT planning. The Co-op has a vision to develop trails within the Upper Mattole but also to connect from the Mattole Headwaters to the coast. They have begun conceptual discussions of connections to the coast, but these discussions have been tempered by a history of a lack of support from the local community for the creation of new public access trails.

Sanctuary Forest coordinates and leads a series of guided hikes throughout the Mattole in the summer and this program has been widely successful. The local community appreciates guided access to the watershed but is less interested in increasing free public access. These hikes also bring more users into the region and could increase interest in developing additional trails.

www.sanctuaryforest.org/

Mendocino Land Trust

The Mendocino Land Trust seeks to conserve important natural resources of Mendocino County including working farmlands and forests, wildlife habitat, open space, scenic vistas, and watersheds, and to facilitate public access. The Land Trust promotes healthy recreation in natural settings and sustainable experiences for residents and visitors in Mendocino County. The Land Trust developed a strategic plan for the Coastal Trail through Mendocino County and worked with the CCT planning staff to consider linkages between CCT planning efforts in Humboldt County and Mendocino County. The Land Trust also offered suggestions to this CCT planning team regarding the planning process and agency cooperation.

www.mendocinolandtrust.org/

The Wildlands Conservancy

The Wildlands Conservancy is a nonprofit organization that seeks to promote land based conservation through expansion of preserve systems. The Wildlands Conservancy owns property at the mouth of the Eel River outside of Ferndale and is actively developing a management and public access plan. The Wildlands Conservancy is interested in connecting its property with other public lands in the lower Eel River basin. Trail development on the property would tie into a network of coastal access trails from the primary CCT route through Ferndale.

www.wildlandsconservancy.org/projects_eel_river.html

Mill Creek Watershed Conservancy (MCWC)

The Mill Creek Watershed Conservancy was formed for the preservation and restoration of forest and grassland within the Mill Creek watershed and other tributaries of the Mattole River. MCWC supported the public acquisition of former timberlands in the Mill Creek watershed into BLM ownership and has completed various restoration projects since the development of a cooperative management plan for these lands located outside of Petrolia.

www.treesfoundation.org/html/affiliates_specific_27.html

Green Diamond Resource Company (GDRC)

Green Diamond Resource Company is a private forestland owner and timber company that owns and manages large tracts of land in northern and central Humboldt County. Although GDRC does not allow general public access on their forestlands, the company has engaged with the CCT team and other organizations concerning possible land sales and easements that would benefit public access and connectivity along the CCT. GDRC has allowed for recreational, research, and other access to its lands on a case by case basis and has a long-standing access agreement with equestrians on property east of Eureka. The CCT planning team discussed land acquisition and easement options around the Little River and the old mill yard just north of Orick.

www.greendiamond.com/

Trinidad Bay Watershed Council

The mission of the Trinidad Bay Watershed Council is to work collaboratively to improve and maintain the watersheds, coastal waters, and communities in the Trinidad and Westhaven area and to make decisions based on data and sound science for the benefit of all community members, businesses and other stakeholders.

[www.northcoastirwmp.net/Content/10345/Trinidad Bay Watershed Council.html](http://www.northcoastirwmp.net/Content/10345/Trinidad_Bay_Watershed_Council.html)

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Appendix B: Partner Questionnaire

Data Collection Framework for Agency Scoping

February 2010

Introduction

Thank you for offering to participate in this interview regarding the implementation strategy for the California Coastal Trail (CCT) - Humboldt County section. The California State Coastal Conservancy (Coastal Conservancy) has contracted with the Natural Resources Services Division of Redwood Community Action Agency (RCAA), Alta Planning + Design, Planwest Partners and Streamline Planning (the project team) to assist with the implementation planning process, which includes conducting interviews with stakeholder agencies and organizations that may have jurisdictional or regulatory interests in the corridor through which the CCT could be aligned.

As you may know, the California coast has been used as a trail for as long as people have inhabited the land. Plans for a continuous coastal trail in California were bolstered with the Coastal Act of 1976, which required local jurisdictions to identify an alignment for the California Coastal Trail in their Local Coastal Programs. Proposition 20, 1972, provides that: “A hiking, bicycle, and equestrian trails system shall be established along or near the coast” and that “ideally the trails system should be continuous and located near the shoreline.” As defined by the Coastal Conservancy, the CCT is a continuous public right-of-way along the California coastline; a trail designed to foster appreciation and stewardship of the scenic and natural resources of the coast through hiking and other complementary modes of non-motorized transportation. Within Humboldt County, the project team envisions the CCT as a braided trail system that ties into existing and planned trails and accommodates recreational and utilitarian uses.

The purpose of this interview is to identify land management and regulatory considerations, opportunities and constraints, anticipated use, design standards, and implementation and management capacity affecting development and maintenance of the CCT corridor. If your organization does not implement trails, this interview will capture your vision for the CCT alignment. By participating in this interview, your organization has the opportunity to highlight prospective trail projects that can benefit the health and connectivity of your community and the region.

We look forward to working with you to ensure that the CCT meets the trail planning efforts and standards of your organization while creating a regional system that provides connections to local communities as well as opportunities for a diverse array of trail experiences.

Sincerely,

Name, Title

Company

Contact Information

Scoping Questionnaire Outline

1. Visioning the CCT

Existing Information about Your Organization

2. Your Jurisdiction's Planning, Policy and Regulatory Considerations
3. Opportunities in Your Jurisdiction
4. Constraints in Your Jurisdiction
5. Environmental Considerations
6. Inter-jurisdictional and Real Property Boundary Interactions
7. Local and Private Interests
8. Anticipated Trail Setting and User Groups
9. Design Considerations
10. Implementation Capacity and Anticipated Funding Sources
11. Management Capacity of Your Organization
12. Additional Issues Not Addressed

Scoping Questions

Visioning the CCT

- A. What is your organization's vision for the CCT?
 - i. Has your organization considered what the CCT should look like and what it should accomplish within your jurisdiction?
 - ii. Has your organization established goals related to the CCT?
 - iii. Should the CCT have a unique identity within your jurisdiction? If so, how would it differ from other segments of the CCT or trails within your jurisdiction?
- B. Has your organization coordinated with the Coastal Commission or Conservancy about where the CCT should be located? If not, how would you suggest developing this coordination?
- C. What is your organization's involvement in trail planning in general or with the CCT specifically?

Existing Information: Your Organization

- A. Please clarify your organization's jurisdictional boundary.
- B. What department(s) within your organization is (are) involved in trail planning and development?
 - i. If multiple departments are involved, what is the contact information for key personnel?
 - ii. Should any other departments be included in the CCT scoping process?
- C. What department(s) within your organization is (are) involved in trail management and operations?
 - i. If multiple departments are involved, what is the contact information for key personnel?
- D. Does your organization use GIS or other mapping tools to document trails, coastal access points or land use designations?

Existing Information: Planning, Policy and Regulatory Considerations

- A. What existing coastal access routes already exist or are planned in your community?
- B. Does your organization have existing plans or documents that include or potentially affect the California Coastal Trail (CCT) or coastal access?
- C. Does your organization have existing or proposed policies that may affect a proposed coastal route or access? Specifically, we are interested in existing and proposed:
 - i. Land use policies
 - ii. Transportation policies
 - iii. Recreation policies
 - iv. Coastal access policies
 - v. Cultural resources policies
 - vi. Historical resources policies
 - vii. Environmental protection policies

If so, can we get a copy of these policies?

- A. What is your organization’s regulatory and review process for building a trail (that is, what are the basic steps your organization requires to get a trail built)?
- B. Has your organization collaborated with any adjacent landowners, agencies or organizations on regional trail connectivity? If so, which ones?
- C. Does your organization have adopted trail regulations?
 - i. Does your organization regulate uses, e.g. walking/jogging/hiking, horseback riding, biking, dog walking? If so, what uses are allowed on trails within your jurisdiction?
- D. Does your organization envision establishing any future plans, policies, regulations or standards regarding the CCT or a trail along the coast?

Opportunities in Your Jurisdiction

- A. Can you share any key opportunities you are aware of to create/implement the Humboldt County portion of the CCT? Opportunities may include site specific opportunities as well as general area-wide opportunities.
 - i. Please describe and provide the location of site-specific opportunities, e.g. existing,planned or conceptual non-motorized facilities or corridors that may serve as a future CCT segment, any publicly-owned parcels or easements near the coast that could be incorporated into a coastal trail corridor, scenic vistas, wildlife viewing areas, beaches, recreational or interpretive facilities and other points of interest.
 - (1) Is the opportunity area part of an adopted policy or plan?If so, what plan?Is a map available?
 - ii. What informal, unplanned trails developed by the public exist that might be incorporated into the CCT?
 - iii. Please provide more information on general area-wide opportunities, e.g. existing sources of trail users (such as area destinations, employment and commercial centers), local volunteer organizations, synergy with other projects, policy needs not mentioned previously.
 - (1) Is this opportunity(ies) part of an adopted plan? If so, what plan?

Constraints in Your Jurisdiction

- A. From your perspective, what are the key constraints to create/implement the Humboldt County portion of the CCT? Constraints may include site-specific constraints as well as general policy, institutional or regional constraints.
 - i. Please describe and provide the location of any site-specific constraints (such as development atop coastal bluffs and along beaches that would limit public access near the coast, incompatible land uses, major highway, roadway and railroad transportation corridors, bridges and culverts, steep terrain, known unstable slopes, prime agricultural lands, and cultural, historical and biological resources).
 - (1) Is the constrained area part of an adopted policy or plan? If so, what plan?
 - (2) Is the constrained area an effort of an advocacy/interest group? If so, what group?

- ii. Please provide more information on any general area-wide constraints.
 - (1) Is this constraint(s) part of an adopted plan? If so, what plan?
 - (2) Is this constraint(s) an effort of another jurisdiction or advocacy/interest group? If so, what group?

Environmental Considerations

- A. If your organization has identified trail routes through sensitive habitats, what process did your organization undertake to approve the route and implement the trail?**
 - i. What measures did your organization take to minimize any potential adverse effects, e.g. establish setbacks, practice avoidance of the sensitive area, implement best management practices (BMPs)?
 - ii. Have these measures effectively addressed the issue(s)?
- B. How successfully has your organization conducted environmental review and permit acquisition (such as streambed alteration agreements or Army Corps of Engineers permits) for trails to get them ready for implementation funding?**

Inter-jurisdictional and Real Property Boundary Interactions

- A. Please describe your organization's interactions with neighbors at jurisdictional and real property boundaries.**
 - i. Are there partnerships or agreements that should be considered when a trail crosses a boundary?
 - ii. In the past, have conflicts surfaced while planning a regional project regarding the accuracy of real property or jurisdictional boundaries?
 - iii. Are there potential CCT segments in your jurisdiction that would require an engineering survey to clarify unclear property boundaries? This question is aiming at areas where there is significant lack of clarity, e.g. ten or more feet where boundaries are unknown.

Local and Private Interests

- A. The following questions address public perception regarding: 1) trails on public land 2) trails over private lands and 3) trails on private land adjoining public land.**
 - i. For segments of trail that require partnership with private land owners, what is your general sense of how property owners would accept a CCT segment adjacent to or abutting or occurring on their property?
 - ii. Would there be concerns about security, vandalism and litter?
 - iii. Do you have suggestions for the best way to approach or contact landowners based on your experiences?
- B. Parcel Boundaries**
 - i. Are there potential CCT segments in your jurisdiction that would require an engineering survey to clarify unclear property boundaries?

Anticipated Trail Setting and User Groups

- A. What land uses do you anticipate the CCT to encounter within your organization’s jurisdiction, e.g. urban, rural, agricultural, beach, forest, wetland?
- B. What special scenic areas or unique natural/wildlife areas occur within your organization’s jurisdiction?
- C. **Pedestrian and Bicyclist Counts**
 - i. Has your organization performed any bicycle or pedestrian counts in your jurisdiction? If so, can we get a copy of the results?
 - ii. Has your organization prepared any bicycle or pedestrian projections to gauge anticipated future use of a CCT or bicycle and pedestrian facilities within your jurisdiction? If so, can we get a copy?
- D. **Bicycle Network Connectivity**
 - i. Is the Humboldt County portion of the CCT or a trail facility along the coast a critical element of your jurisdiction’s bicycle network?
- E. **Pedestrian Network Connectivity**
 - i. Is the Humboldt CCT or a trail facility along the coast a critical element of your jurisdiction’s pedestrian network?
- F. **Regulations**

Does your organization regulate hours or seasons of use? If so, please identify.
- G. Do you anticipate equestrian use in your organization’s portion of the trail?
- H. What other ways do you anticipate people will use the CCT in your area (hiking, mountain biking, birder watchings, dog walking, for tourism)?
- I. **East/West Connectors**
 - i. What are the critical feeder/connector elements of your local pedestrian and bicycle network that would “feed” a regional trail facility along the coast? What connector trails/networks would you like to see feed into/from the CCT?

Design Considerations

- A. **Does your organization have trail and/or trailhead development standards?**
 - i. Does your organization have dimensioned or scaled cross sections or plan views? If so, can we get a copy?
 - ii. Do you find that trails developed with these standards meet the needs of trail users? For example, do they:
 - (1) Provide adequate access?
 - (2) Meet the needs of existing and potential user groups?
 - (3) Reduce the potential for user conflicts?
 - (4) Protect nearby sensitive environmental, cultural or historic resources?

- iii. Does your organization have standards for trail amenities (lighting, signs, furnishings)? If so, what are they?

Implementation Capacity and Anticipated Funding Sources

- A. Has your organization already identified priority projects that would complete sections of the CCT?
- B. How would you recommend planning for trail implementation in your jurisdiction, e.g. incorporation into your organization's General Plan, a Regional Transportation Program, a Local Coastal Program Plan, specific plans, community plans?
- C. Does your organization have designated staff/hours for trail development projects?
- D. How does your agency go about acquiring trail corridors?
- E. How does your organization fund trail construction? Please identify any federal, state, regional, local and non-traditional (ex: community development block grants, developer fees, etc.) funding sources used.
- F. Does your organization currently have funding identified for non-motorized transportation, recreation or coastal access projects, particularly including the CCT?
 - i. Is this funding internal or external (grant) funding?

Management Capacity of Your Organization

- A. Trail Maintenance
 - i. If your organization currently maintains trails, what types of trails does your organization maintain, e.g. narrow natural surface trails, fire roads that also serve as trails, paved trails?
 - ii. Which department is responsible for trail maintenance?
 - iii. Has your organization designated a staff person to coordinate maintenance activities, e.g. a Trail Manager?
 - iv. What are your major trail maintenance challenges?
 - v. What routine and/or long-term maintenance activities does your organization perform? Routine activities may include vegetation management, sweeping, sign repair, etc., whereas long-term maintenance may include slurry sealing for asphalt trails, culvert or bridge repair, etc.
 - vi. Does your organization have routine and/or long-term maintenance schedules that identify the frequency of individual maintenance tasks? If so, please provide.
 - vii. Does your organization fund trail maintenance? If so, how?
 - viii. What are other trail maintenance challenges and solutions?
 - ix. Please identify any other organizations, agencies or groups that maintain trails within your jurisdiction, including volunteer organizations.
 - (1) What is the nature of your agreement with this agency/group/organization?
- B. Trail Monitoring and Patrols
 - i. Does your organization patrol any trails?
 - (1) If so, how many staff members are assigned to patrolling?

- (2) What activities do they undertake, e.g. issue warnings and/or citations, discuss trail regulations, distribute educational materials, survey for maintenance needs?
- (3) How often do they patrol the trails, e.g. daily, weekly, monthly, annually?
- ii. If not, does a local law enforcement group provide patrols?

C. Education and Information Sharing

- i. How do/would users locate existing segments of the CCT in your jurisdiction?
- ii. What measures does your organization take to educate users of trail regulations and trail user etiquette?
- iii. What measures does your organization take to notify users of trail closures?

Additional Issues not Addressed

- A. Are there any other issues you believe might impact your organization's ability to implement or maintain a California Coastal Trail segment?
- B. Are there any issues not already discussed that could prevent the implementation of a coastal trail in your jurisdiction? If so, please describe.
- C. Can you suggest any special interest groups/citizen groups/members of the public that are active in your jurisdiction that would be interested in participating in the CCT public scoping process?

Thank you for your time. As a next step in the planning process, the project team will host scoping workshops to gather public input. Would you like to be contacted regarding these workshops?

Appendix C: Technical Advisory Team Workshop Summary

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Appendix C: Technical Advisory Team Workshop Summary

After a series of interviews and analysis of existing policy, plans and other information about the CCT in Humboldt County, three workshops were held with agency and organization representatives who manage land in coastal Humboldt County on March 9 and 10 at the Eureka Woman’s Club and Ferndale Town Hall. Primary CCT partners including all land management agencies, tribes, municipalities and land-managing organizations in the county were invited. An overview presentation was provided for each workshop, and then focus groups formed to discuss a set of key questions about particular CCT constraints and overall CCT routing. Attendees were assigned to particular focus groups within a workshop relevant to their organization’s jurisdiction. A number of people attending (Peter Jarausch, Coastal Conservancy project manager, Tom Hofweber, County Community Development Services, and Jen Rice, NRS/RCAA) floated between groups and are often not listed below as group attendees. Attending organizations are listed below, and primary partner organizations are detailed in Appendix A.

Attending Organizations

Bureau of Land Management	Humboldt North Coast Land Trust
Caltrans District 1	Manila Community Services District
City of Arcata	Mattole Restoration Council
City of Eureka	McKinleyville Land Trust
City of Ferndale	North Coast Railroad Authority
City of Fortuna	Orick Community Services District
City of Trinidad	Redwood National Park
Friends of the Dunes	State Coastal Conservancy
Humboldt Bay Harbor, Recreation, and Conservation District	Trinidad Rancheria
Humboldt County Association of Governments	U.S. Fish and Wildlife Service
Humboldt County Community Development Services	Westhaven Community Services District
Humboldt County Public Works	Wiyot Tribe
	Yurok Tribe

Focus Groups

Redwood National Park through Orick

Key Questions

- What is timeline for Redwood National Park (RNP) plans to connect trail from Davison Road to Skunk Cabbage trailhead?
- Would Green Diamond be interested in granting an easement along Prairie Creek Camp Road (old mill road)?
- What needs to be done with county (Army Corps?) to put the primary CCT route on the levee?
- Would there be an opportunity in the future to widen 101 at the curves just north of Orick? Or does the creek on one side and steep slope on other limit this option?
- Could restoration money for lower Redwood Creek estuary restoration also be used for levee restoration for a trail?

Key Ideas

- Ensure all RNP trails are on map (Skunk Cabbage was not on CCT map) and place names, road names are spelled correctly
- RNP has a trail proposed along north side of Skunk Creek to Davison Road.
- CCT use of Redwood Creek levee as alternative to route on 101. The County does annual maintenance so parts of levee would be inaccessible for a few weeks a year. In a few years, the levee may be part of a Redwood Creek estuary restoration project.
- Potential route from Skunk Cabbage – head north a bit on 101 (or RNP trail if they build one from Skunk Cabbage to Davison Road), get to road behind old Green Diamond mill to head south, cross Prairie Creek on Bald Hills Rd bridge, follow old Caltrans right of way on east side of 101, get on northern Redwood Creek levee, cross Redwood Creek on 101 bridge, connect to southern Redwood Creek levee
- A trail (or braided CCT trail alignment) on the south levee could tie into the Orick School

Key Contacts

- Hank Seemann – exact parameters for using levee as trail corridor
- Green Diamond Resource Company – plans for Prairie Creek Camp Road (road that goes behind recently closed mill)
- Alyson Hunter (Caltrans) – what is width of 101 ROW around the Prairie Creek curves just north of Orick? Does Caltrans still own right-of-way just east of 101 near Riverview Dr. and south of Bald Hills Rd bridge?

Attendees

- Facilitator: Tiffany Wilson, Planwest Partners
- Note-taker: Mike Rose, Alta Planning + Design
- Field review: Emily Sinkhorn, NRS/RCAA and Stephanie Klein, Streamline Planning
- Karla Youngblood, Orick Community Services District
- Aida Parkinson, Lynn Erickson-Levi and Shaun Bessinger, Redwood National Park
- Bob McConnell, Yurok Tribe
- Marcella Clem, HCAOG
- Alyson Hunter, Caltrans

Next Steps

- Continue to talk with County Public Works about use of levee for trail
- Field work needed to look at identified potential routes.
- Skunk Cabbage CCT needs to be put on the map.
- Correct spelling errors on the maps.
- Review Redwood National Park Trails and Backcountry Management Plan for trails.
- Talk with Green Diamond about road east of 101 around the recently closed mill.

Summary

- Group identified an alternative to using 101: levee and potentially Green Diamond private road on east side of US 101 to connect with former road adjacent to 101 in RNP north of mill.
- Crossing waterways is an issue, however, could use Bald Hills Road bridge, through mill site, get back to levee, and then use 101 bridge to cross over the levee again.
- Potential routes to bring CCT route alignment back to the coast from southern end of Skunk Cabbage Trail.

Discussion

- Skunk Cabbage is considered part of the Coastal Trail; add to map. It follows the drainage, there is a proposed connection north to Davison Road.
- Near Robinson Road, there is the Skunk Cabbage trailhead. RNP has proposed another trail.
 - Mike: How do we get from Robinson Rd to Orick?
 - Can cross at the bridge near Swan Road;

- Consider using the levee as much as possible. Is any part in RNP jurisdiction? on the south side until west end.
 - The eastern end of the levee is ten to twelve feet wide. Has annual maintenance, for a few weeks during the year parts will be inaccessible. In a few years, the levee may be part of a larger Redwood Creek estuary restoration project.
 - Southern end of the map there is an existing gate on existing trail.
 - If there were a trail from the middle of the south levee, could connect to nearby Orick School. Could fit into agency goals as part of an evacuation route? - Karla
 - The levee takes you north of Orick, then it would have to follow 101 because of Redwood Creek and Prairie Creek.
 - Funds for estuary restoration could also be used for levee restoration?
- Alyson (Caltrans): There is an opportunity for widening 101, but it would be expensive because of slope and the creek. Prairie Creek bridge north of Skunk Cabbage. A lot of tight turns, unsure of available right of way.
 - Karla: What if the trail route were to go up Bald Hills Road and connected to Old Mill Road that connects to Davison Bike Trail? There is a failure on this old mill road that cars can't get past but pedestrians and cyclists could.
 - Davison Bike Trail Bridge (Prairie Creek Bridge) is good for connection because there is a pedestrian bridge.
- What about from west end of levee to shoreline?
 - Visitor Center Boardwalk is short and is more a viewpoint rather than part of the trail. It is not likely an option to connect levee with shoreline.
- Old State Highway is potential route but there are pinch points with no shoulder.
- What about Caltrans ROW in southwest corner of Orick?
 - Potential route through Orick: 101 or Old State Highway to Transfer Station across from Orick School to Levee
- Overall: crossing water, narrow roadways (Prairie Creek) are issues.
- Goon Bluffs and Mussel Point (Ceremonial Rock) are problem areas. NPS has a trail proposed along north side of Skunk Creek (up to Davison?). This could connect to the inland trails.
 - NPS just finished ten year planning process and won't include new plans at this point. CCT plan needs to include proposed segments in their plan.

Questions

- Are there any utility easements through Skunk Cabbage area?
- What about Caltrans ROW in southwest corner of Orick?

Map Notes

- Spelling error: Davison Rd. NOT Davidson Rd.
- Missing RNP coastal trail on map connecting near Robinson Rd.
- Backcountry camp needs to be labeled
- Prairie Creek bridge at Davison Ranch can connect to the RNP segment of coastal trail
- Use old haul road from just south of Davison Road, paralleling 101 on the east to old Mill for trail alignment
- Continue south along Caltrans ROW (east side of 101 near River View Ln.) west side of the levee

Humboldt Lagoons

Key Questions

Yurok Tribe

- What alignments across Gyon Bluffs and other pinch points can avoid cultural resources?

Caltrans

- How can the shoulder be improved to accommodate bike/ped traffic on US 101 through the Lagoons?
- What coordination needs to happen with State Parks?

National & State Parks

- How can a new trail over Gyon Bluffs be incorporated into planning efforts?
- Are horses allowed on the trail between Stone and Big Lagoons?

Key Ideas

- Avoid cultural resources in all bluff areas.
- Caltrans would need to improve sections of 101.
- This section around the Lagoons is truly 'braided' with pedestrians and possibly equestrians on the beach and bicycles on the existing roadways.
- Possibly review access and condition of Old State Highway on field tour.

Key Contacts

- Bob McConnell (Yurok Tribe) for review of proposed alignments on Gyon bluffs and other sensitive areas. May want to invite out for second field tour.
- Alyson Hunter (Caltrans) regarding coordination with Parks on improvements along US 101.
- John Carson (Caltrans) regarding the need for longitudinal encroachment

- Aida Parkinson (RNP) regarding route over Gyon bluffs.

Attendees

- Facilitator: Dana Dickman, Alta Planning + Design
- Note-taker: Sara Mosser, Planwest Partners
- Field review: Bob Brown, Streamline Planning and Kevin Wright, RCAA/NRS
- Tom Hofweber, County Community Development Services
- Richard Swisher, Westhaven Community Services District
- Don Allan, Humboldt North Coast Land Trust
- Bruce Cann, BLM
- Nancy Correll, McKinleyville Land Trust
- Others came and went throughout the session.

Summary Notes

Dana gave an introduction re: preferred alignments

Kevin/Bob reported on issues, opportunities and constraints moving north to south

- Pedestrians walking on beach v. walking on US101
- Constraints on Gyon Bluffs: Can't gain access to the beach because the bluff is very steep.
- State Parks first said that there are no plans to create trails on or around Gyon bluffs but now are looking into a possible trail to connect from the south end of Freshwater Lagoon to the Stone Lagoon access road; there are cultural areas near or on the bluffs.

Sharp Point

- Sharp Point is also a constraint (Don)
- You can get around it in low tides and you can scramble over it (Tom)
- People can walk along this backbone but it is Franciscan blue goo geology (Bob)
- *Sharp Point Trail* (refers to trail between Stone Lagoon and Dry Lagoon)
 - There is a trail between Stone and Dry lagoon, eventually connecting to Big Lagoon. The trail is not well maintained, but is still functional and could use some brush clearing. The north end of the trail is not an official State Parks trail but this volunteer track meets up with Stone Lagoon and the trail continues along the shoreline to the Stone Lagoon bar.

Lagoon Breaches

- Constraint occurs when Big Lagoon breaches, the spit is impassible. When it is closed, it is totally walkable. (Don)
- Some years, Stone Lagoon doesn't open/breach at all but when it does it stays open longer than Big Lagoon.
- When it breaches, Big Lagoon only opens for a couple of days (Tom), sometimes only for several hours.

Kane Road Trail

- There is an unofficial trail that comes off of Kane Rd just north of Big Lagoon that provides coastal access, this is a good surf spot, not many people know about this and it's not well maintained (Don)
- There is a drop in the pavement on Kane Road (Tuttman Sink), the trail is near the Sink. It has blue goo, it is steep (Bob)
- Constraint: No space on east side of US 101 against the bluffs; no shoulder near Stone Lagoon Visitors Center
- Wind surfer access points at Big Lagoon – many footpaths leading down from the road and parking spots. (Don)
- The US101 causeway/bridge along Freshwater Lagoon is a constant, high speeds (Don)
 - No bike lane, but wide shoulders are present

South Big Lagoon

- Cultural constraints on south Big Lagoon beach... (Tom)
- Yurok would like to have more restrictions in the parking area and the county is working with them on it.

Old State Highway

- Wide shoulder near the old RV parking along beach, run into obstacle at Gyon Bluffs when traveling south on US 101
- County road option on east side of Freshwater Lagoon?
 - It is quite a climb that gets user from Freshwater Lagoon and Old State Highway, to US 101
 - Road is very narrow (Bob)
- This option is not a more pleasant route, so it is not a more desirable route than the beach option.
- There would be less traffic along this route, but a connection at north end to US 101 is challenging.
- Might be worth looking at in the field again to determine outlet into Orick and road conditions. (Peter)

Gyon Bluffs (Southwest End of Freshwater Lagoon)

- National Parks completed a trails plan that does not include an alignment for the bluffs. People walk up to the top on a volunteer trail, but do not get down the other side
- The Yurok Tribe expressed not wanting people on Gyon Bluffs. This sentiment was given as public comment during the RNP trail plan process. (Aida)
- There are sensitive areas on the bluffs that the Yurok want to see protected. (Bob McConnell)
- Question: would formalizing a trail help the impact on resources?
 - If a formal trail is built that keeps people away from resources that could be fine. Give people direction thru the area, so that there is less of a problem with visitor interaction with culturally sensitive areas.(Bob M)
 - Question: how to formalize a process to get feedback on resources from the tribe? Project staff should develop a couple of proposed routes and then solicit feedback on the specific routes.(Bob M)
- Again, the National Parks reiterated that they have no preferred route over the bluffs because they felt it was off limits for recommended public access. There will need to be further discussion with parks about any proposed trail alignments, as this alignment is not in the RNP plan and consequently received no compliance approval. (Aida)

Cultural Resources

- Bob M identified other areas with sensitive cultural resources on the map.
- These are not on the beach. If people stay to the beach, they will avoid them. Public access cannot avoid cultural site impacts near the Stone Lagoon breach...(Bob)
- Perhaps raised boardwalks could be constructed to avoid sensitive cultural resources
- Identifying sensitive cultural sites in public documents in order to preserve those sites can be counterproductive in that as soon as the site is identified, it calls attention to it, therefore putting it at risk for mistreatment.
- Bob M would like to see the Gyon Bluffs map at different scale for easier viewing (zoom in).
- There is some potential to go over the bluffs. Team will review it. (Dana)
- Beach trail near Stone Lagoon/Sharp Point is available ninety-nine percent of the time. Breaching not as often here as Big Lagoon (Don)

Alternatives Along 101

- Not much unless along Green Diamond road. (East of US 101)
- Old road system up McDonald Creek is in bad shape and had a road assessment. There is a really nice trail to connect Redwood National Park to State Park... Don has been thinking about this for a long time. Not a good alternative for the CCT though.
- Can Caltrans work with State Parks to develop a trail adjacent to US 101 along east side of Stone Lagoon.
 - “Longitudinal encroachment” process: any trail that runs lengthwise along ROW requires longitudinal encroachment. Not the same as access point, requires extensive process.
 - It is a possibility, but when working on Caltrans ROW, must be designed to Caltrans standards (and usually ADA-compliant)
- In State Parks, then Caltrans is under rules of State Parks.
- The trail may be easier to develop just adjacent to Caltrans ROW.
- Have the trail go in and out of the ROW, it is possible, but engineering it is hard, so locate as much as possible out of ROW. (Alyson)
- With Hammond, set precedent, so it could be easier to get trail in ROW.
- Caltrans is happy with how Hammond worked out. (Alyson)
- Back to the US 101 ROW and improvements, US 101 has gnarly curves and corners
- If people can cross onto Big Lagoon spit, that is the best route.
- Are horses allowed on trail between Stone and Dry Lagoon (Sharp Point Trail)? (No)
- How to avoid cultural resources?
- Need to check into Kane Rd access, where it goes...
- What is the Green Diamond land there? Following the road?

Summary

- As part of the braided CCT network, a pedestrian/equestrian-only route along the beach is needed.
- Look at US 101 route for bikes. Are improvements needed?
- Gyon Bluffs constraint. There are potential opportunities.
- Caltrans ROW conversation, how to make it more accommodating for bike, ped, etc.
- CCT Focus Area: access around Humboldt Lagoons
- Trail along highway around Stone Lagoon would require longitudinal encroachment permit

Trinidad Trails: South of Trinidad Head Connecting the Beach to Scenic Drive

Key Questions

- What are the options for trail/stairs to get over or around the ‘pinch points’ along the beach route?
- What issues might arise with Coastal Commission if cable steps or other trails are used to get around the points? (Consistency with Coastal Act section 30253 may be one consideration)
- Is the Trinidad Rancheria interested in developing local public access to the beach from Scenic Drive?

Key Ideas

- Sign existing trails well and devise a system to make markers permanent
- Create a beach route and multiple access points to Scenic Drive
- Points along the beach route have sensitive cultural sites
- Scenic Drive may become more bike and pedestrian friendly if other access to the casino is developed and the road is ever closed due to maintenance challenges.
- Review private land rights preferred beach route for future concessions/easements should the landowner sell

Key Contacts

- Tsurai Ancestral Society (Axel Lindgren) – contact during route selection to determine compatibility with cultural resource protection
- Trinidad Rancheria (Leslie or Jacque) – contact to ask about local public access plans from the beach
- City of Trinidad Stan Binnie – to discuss best alignment and over pinch points and coordination with the county and Rancheria

Attendees

- Facilitator: Dana Dickman, Alta Planning + Design
- Note-taker: Sara Mosser, Planwest Partners
- Field review: Bob Brown, Streamline Planning (and City of Trinidad Planning)
- Hank Seemann, County Public Works
- Stan Binnie, Mayor of Trinidad
- Bruce Cann, BLM
- Karen Diemer, City of Arcata
- Bob McConnell, Yurok Tribe

Summary Notes

Trail Markers

- There are trail markers that come off of Groth Lane, indicating a trail that connects to Parker Creek Trail. The markers have been rocks, rock plaques, etc.
 - They always disappear as landowners don't want people to know that the trail is there.
 - Parker Creek Trail is drawn on workshop map.
- There is a trail that comes down to the beach? from lighthouse on Trinidad Head?
 - There are sensitive cultural sites in the area near the trail, near lighthouse.
- A constrained area exists at the big rock/sea stack rockpile, between Launcher Beach and Home Beach, it is a really steep rock. There used to be an undesignated trail around the rock, but storm waves alter it. The city has a desire to put trail there, it is in their LCP (Local Coastal Plan).
 - What about steps over/around the rock? What are the implications for scenic resources and the coastal commission?
 - It is possible to get around that big rock now, it is just not easy rock scrambling.
- Landowners constraint near “old wagon road trail”
 - Perhaps we can look at this trail as secondary access as we want to keep the peace
- People are able to get around other big outcropping, north of McConnahas Mill Creek.
- There could be potential with Trinidad Rancheria to get access points up to Scenic Dr.
- Beach trail goes up Parker Creek to Groth Lane.
 - What needs to happen to make this happen?
 - Address potential cultural resources – site specific, contact the Tsurai ancestral society (Axel Lindgren)
 - Stan says the city is in the process of transferring property back to Yurok along the beach between the two ‘pinch points’ on the beach (see map notes).
- Try to sign and highlight a continual connection north to College Cove and Trinidad State Beach
- The landowner on Wagner St is not interested in promoting the trail. He has in the past taken down signs placed by the city. CCT planning should try to avoid landowner on Wagner St at this time.
- Scenic Drive is unstable, but portion to and from Rancheria has been redone and looks pretty good.
 - There has been a road rehab project
- There have been requests from residents on Lanford Road to improve the road

US 101 Interchange

- Interchange to Trinidad Rancheria would get casino traffic off of Scenic Drive and make it safer for trail use.
- There has been some discussion of a pedestrian bridge to connect over US 101 and to Scenic Drive from Westhaven

Pedestrian Route

- From the Trinidad Harbor, go along Launcher Beach over rocks to Old Home Beach around more rocks north of McConnahas/Mill Creek. Need to figure out how to get around that, cable steps, steep sets of stairs? Look at Golden Gate National Monument for example. The trouble is the anchoring point on the bottom/beach because of the wave action.(Peter)
 - Talk with Tsurai Ancestral Society
 - Talk with City, Coastal Commission, Trinidad Rancheria, etc.
- To get around the second big rock (north of McConnahas Mill Creek), it is private property so it may be hard to get access. If it is selected as a preferred route, the Commission can flag that and get improvements in the future, if the landowner sells it...
- Then need to talk with Rancheria because bluff access is not possible after the second big rock, so need to talk to Rancheria about how to get back up to Scenic Drive.
- What about a frontage road along US 101, instead of Scenic Drive?
 - No discussion of that, just the interchange discussion.

Bicycle Route

- The bike route should stay on Scenic Drive. The north connection to Scenic should follow the recommendations for the Pacific Coast Bike Route.
- Are there ways to make Scenic less comfortable for people to drive on it... could it be a heavily traffic-calmed 'woonerf' in the future with more focus as a scenic resource rather than private property access?

Map Notes

- CCT Focus Area: Trinidad trail connection to Scenic Drive (west to east)
- Proposed alignment goes north to Elk Head
- There is a fence at State Park Rd.
- Cultural restraint on rock outcrop south of the harbor
- City transfer- possibly reserve an easement
- Cable steps south of Edward Street proposed? – cable steps exist on lower Axel Lindgren Memorial Trail
- Connect proposed alignment near Groth Lane along property boundaries

- Circle around intersection at Lanford Rd.
- No pedestrian access at McConnahas Mill Creek or at Rancheria
- Circle with a green line over rocky outcrop
- Contact land owner/ 2008-2009 road project
- Talk to Rancheria about alternative route from beach up to Scenic

Little River Crossing

Key Questions

- Identify best way to cross Little River
- Private property
- Is an easement from Green Diamond a possibility?
- The area may have many cultural resources to be aware of

Key Ideas

- Cantilever off existing Caltrans Bridge
- Shifting traffic lanes over for separated bike/ped crossing on the Caltrans Bridge
- Follow the old state highway
- Horses can cross the river near the mouth to access the beach

Key Contacts

- Green Diamond – Regarding easement
- Caltrans – Cantilevered Bridge, use of their ROW

Attendees

- Facilitator: Tiffany Wilson, Planwest Partners
- Note-taker: Mike Rose, Alta Planning + Design
- Local contact: Kevin Wright, NRS/RCAA and Stephanie Klein, Streamline Planning
- Peter Jaraus, State Coastal Conservancy
- Don Allan, Humboldt North Coast Land Trust
- Alyson Hunter, Caltrans
- Bob McConnell, Yurok Tribe

Summary

- Old state highway is likely the best alternative.
- Task: Team looking into existing easement.
- Beach is good option for equestrians.
- Investigate impacts of the trail on cultural resources.
- Research potential easement on Old State Highway from Green Diamond.
- Investigate property ownership of triangle parcels with housing in the middle of the Caltrans ROW.

Notes

- Critical issue getting to and over Little River.
 - How to get to/from the US101 bridge?
 - State Parks owns south piece on edge near old railbed.
 - Utility ROW and the Old State Highway are possible alternatives.
 - State Parks land could be subdivided for public resource.
 - Possible route could be on Old State Highway up past State Parks Land and then use a possible existing easement on a private parcel.
 - Alyson suggested the team check for existing easement for old highway on private property. Green Diamond could get it.
 - Horse wouldn't take Old State Highway route but instead would take beach route.
 - Land Trust Land Easement exists on coast near Moonstone (not including beach house) but is basically one row of parking. It would be difficult to make a connection because it's steep and high tides and flows poses challenges.(Don Allan)
 - Backwater near the highway alignment will pose a challenge.
 - Team needs to find ownership of triangle parcel with housing in the middle of Caltrans ROW.
 - The on-ramp to US 101 is dangerous and the team preferred the alignment not cross near the ramp. (Alyson and Don Allan)
 - The Green Diamond parcel may be the best alternative but it's mostly wetland. The owner may sell easement or title.
 - Alyson and Don Allan are looking at cantilevering off of bridge, however that option is dependent on funding. Coastal Commission permitting will be necessary even though the CCT is part of their plan.
 - Question: Is it a possibility for State Parks to buy Green Diamond site because it's adjacent to State Park land?

- There are culturally sensitive areas in this section. If we're looking at the Old State Highway, pretty extensive survey will be needed. However, the roadbed area is likely a good spot because it's already been disturbed.
- Pilot Point steep and has sensitive cultural areas so it makes sense to bring trail north of Pilot Point.
- Bob from Yurok Tribe:
 - Interested in trails as a boost to tourism.
 - The board of elders is required to review everything.
 - A strong preference to stay in a disturbed corridor is preferred.

Map Notes

- CCT Focus Area: Little River Crossing (going north to south)
- Even cantilever on bridge requires Coastal Commission process
- The headland on the north side of Moonstone beach- Pilot Point is a NCLT holding: fossil beds?
- Research old easement
- Meet with Green Diamond and check on easement
- Consider old highway road bed
- Little River area is zoned as public recreation
- Wetlands exist on east side of the mouth of the Little River near Moonstone Cross on the west side of US 101
- South end of map: cultural survey is needed on public land parcel adjacent to the US101 bridge.

Hammond To Samoa Peninsula

Key Questions

- Where are the key regional connections to the west beach route? Lanphere? Manila? Friends of the Dunes?
- Should the roads have more signing and additional width?
- Is Foster Road or Upper Bay the best connection to Arcata's Rail-with-Trail?
- What improvements may be made within Manila as an alternative to State Route 255?
- What are the possible future connections to Annie & Mary using the north levee along the Mad River?

Key Ideas

- Prioritize investments in the Hammond Bridge before widening roads or adding road adjacent paths.
- Make regional and local connections to the CCT at key points along the beach route.
- Connect CCT to Arcata Rail-with-Trail as the east route around the Humboldt Bay.

Key Contacts

- Hank Seemann - about road ROW widths and drainage issues along bottoms roads
- Karen Diemer - to confirm which connection route is preferred – Upper Bay or Foster Road
- Friends of the Dunes (John St. Marie) and Manila CSD - to determine status of access points in the Manila area
- Brian Simon – follow up on recommendations and public process for the State Route 255 project through Manila

Attendees

- Facilitator: Dana Dickman, Alta Planning + Design
- Note-taker: Colette Metz, Planwest Partners
- Field review: Sara Mosser, Planwest Partners
- Mark Wheetley, City of Arcata Council
- Karen Diemer, City of Arcata Environmental Services
- Hank Seemann, County of Humboldt
- Brian Simon, Caltrans
- Alyson Hunter, Caltrans
- John St. Marie, Friends of the Dunes (Humboldt Coastwalk coordinator for five to six years, beginning in 1992)
- Manila CSD
- Marcella Clem, HCAOG

Notes

Beach route from Hammond Bridge

- Follow Mad River Road to Mad River Beach County Park. Pedestrians and equestrians traveling south would have to stay on the beach (Lanphere restricts access above the waveslope; currently special guided walks can be arranged by calling the office 444-1397).

- Friends of the Dunes/Humboldt Coastal Nature Center has existing trails that would provide dune access (east-west connection to State Route 255/Manila from beach).

Mad River Bottoms route from Hammond Bridge

- Users prefer to stay as west as possible. Identified street route from Hammond Bridge: Mad River Rd. to Lanphere Rd. to Seidel Rd. to Foster Ave. to Jackson Ranch Road. Connect to either utility ROW to access coast, or connect to State Route 255 to Manila.
- Abandoned Hammond Railroad corridor: This route is adjacent to numerous private parcels that support agriculture operations (primarily beef/dairy); this route actually cuts between a farm house and barn just south of the Mad River Bridge. There would be high landowner opposition of a trail on the corridor attributing to potential disturbance to livestock and operations. This is not preferred at this time – but could be an option in the future if the next generation is willing.
- The group looked at accessing the beach from Lanphere Rd. that ends at Lanphere Dunes.

Route from Jackson Ranch Road to Water District pipeline easement near Redwood Gun Club

- This route could be an option; contingent on Fish and Wildlife Service and BLM. Water District access exists, no public access exists.

Mad River Levee to Arcata/Annie & Mary Trail

- This option, although on private property, is desired by the City of Arcata to connect to services, the Valley West area, and to the Annie & Mary Trail.

Railroad Corridor following State Route 255

- The rail corridor north and west around Humboldt Bay could potentially serve as a trail corridor; the existing RR corridor has potential to provide user access.

Bay Levee – McDaniel Slough

- Public Lands managed by California Department of Fish and Game (DFG). DFG does not desire full public access in this wildlife area (does allow hunting). Active public use around the Arcata Bay is allowed at the Arcata Marsh and Wildlife Sanctuary. The two agencies work together to balance wildlife protection and public use.
- At this point DFG has said no to public access, but there is access for hunters. It was noted that there is potential for DFG to change their policy if there is enough public desire for levee access.

State Route 255 Connection from Arcata

- Caltrans is evaluating non-motorized improvement options on State Route 255. The Caltrans State Route 255 Feasibility Study will assess how to get shoulders wider in segment 3 (i.e., Arcata to Mad River Slough) and the feasibility of a Class I bike path in segment two (west side of State Route 255 through Manila).

- Is Caltrans evaluating a potential trail through Manila in Caltrans ROW?

Connection from Arcata Bottoms to City of Arcata and Arcata Rail-with-Trail

- Two options identified: from Mad River Rd. to Upper Bay Road, or from Mad River Rd. to Lanphere Rd. to Seidel Rd. to Foster Avenue. No strong preference was identified; both were viewed as valuable connections to Arcata.

Miscellaneous Discussions

- Valley West is a visitor-serving hub – trail connection to this area is desired by the City of Arcata.
- There is an old logging corridor used to transfer logs from the Mad River to the slough. A WWII patrol memorial and trail is located along the coast from Lanphere Dunes to South Jetty.
- A County of Humboldt priority is to replace Mad River Bridge. This should be a major priority. The new bridge should be located in the same place. This is a key access point and current focus.
- County roads could potentially be widened. Most of these roadways have drainage ditches and would therefore have impacts to wetlands. Improvements would have to be planned with wetland mitigation included. Non-motorized improvement options include shoulder widening or soft surface trail alongside the road right-of-way.
- There are livestock compatibility issues in the Arcata Bottoms. Since this will be a primary trail development concern/constraint throughout Humboldt County, the development of Best Management Practices or Standards for trail development in agricultural areas is needed.
- The County of Humboldt is hesitant to post speed limits in the Arcata Bottoms when there is not enforcement.

Eureka Waterfront Trail from Truesdale Street to C Street

Key Questions

- What non-motorized design elements are included in Waterfront Drive project?
- Could there be a trail alternative added to the Waterfront Drive extension project? If CEQA permitting rolling but road extension stalled could there be a trail alternative?
- If Balloon Track development is long-term, can trail development be pursued anyway? Right now trail is planned adjacent to Balloon Track, off the road.

Key Ideas

- Adjust proposed alignment on CCT map to reflect Eureka Waterfront Trail and Promenade Recommendations and other rail-with-trail ideas discussed at workshop
- Potential for rail-with-trail for much of the route between Bayshore Mall and Target. Rail-with-trail or rail-to-trail could be feasible for much of route between Target and Adorni.

- The Boardwalk will be expanded to connect to the Aquatic Center.
- Connecting to the boardwalk from the potential rail-with-trail: G&R Metal Site is in process to evaluate contamination.
- Potential to widen sidewalk along Marina Way
- Railroad Ave south of Vigo St needs improvements. There are a lot of encampments and the area does not feel safe.
- Potential connections to trail include I Street, 14th Street, Del Norte Street
- Signage off Broadway/US101 to direct potential trail users to trailheads and coastal access points
- Potential for private development of a trail from US101 bridge to Myrtle. City of Eureka has met with Caltrans re: getting trail under US101 bridge.

Key Contacts

- Gary Bird: timeframe for completing grant funded trail section along the water.
- Lisa Shikany: ask about status of the Waterfront Drive project.
- Miles/City of Eureka: talk to Schmidbauer about a route around property just south of public marina

Attendees

- Facilitator: Jen Rice, NRS/RCAA
- Note-taker: Emily Sinkhorn, NRS/RCAA
- Miles Slattery, City of Eureka
- Peter Jarausch, State Coastal Conservancy
- Stephanie Klein, Streamline Planning

Next Steps

- Research Waterfront Drive project status and what bikeways are included.
- Talk with Gary about having the grant funded trail section done along the water.
- Proposed alignment on map is not accurate, revise.
- Miles: talk with Lisa about the status of the Waterfront Drive project. The team wondered if there could there be a trail alternative aspect added to the CEQA part of the project? Check in about where the Waterfront Drive process is, where is it going, if it is stalled indefinitely, is there a way to pursue to have that effort provide for a trail-only alternative?

Summary

- Check on Waterfront Drive process.
- Rail-with-Trail or rail-to-trail along much of the waterfront. Research behind Bayshore Mall.
- If Balloon Track development is long-term, can trail parallel to Waterfront Drive be pursued anyway?
- Private development trail from US101 bridge to Myrtle. City meeting with Caltrans on getting under US101 bridge.

Notes

- Red proposed alignment on map is not accurate.
- Waterfront Trail/Promenade: proposed to be a Class I but then it crosses to the west side.
- The team discussed an option to have developer build the trail through its segment (Balloon Track). If the development is stalled, would the city be interested in taking the lead? The developer probably won't give an easement if they're not going to build the project. It may not be the best time to ask the developer for an easement. Trail has been planned adjacent to Balloon Track (off road).
- Potential alignment option includes a wide sidewalk. Widen Wharfinger sidewalk to Marina Way
- The team also discussed the potential to utilize the landscaped area in Marina parking lot; however, there are many pinch points.
- Railroad Ave may be a potential rail-with-trail. Mike thinks may be possible from Target to Waterfront by the Adorni. Potential trail pays for some improvements that would benefit rail. This would require an undercrossing under US101.
- Connecting to the boardwalk from the potential rail-with-trail
- G&R Metal Site is in process to evaluate contamination.
- Someone should talk with Gary about getting the grant funded trail section done along the water.
- The Boardwalk will be expanded to connect to the Aquatic Center. This alignment will not include equestrian use.
- Railroad Ave south of Vigo St needs improvements. There are a lot of encampments and the area does not feel safe.
- Miles (City) should talk with Lisa on status of Waterfront Drive project. The team wondered if there could there be a trail alternative aspect added to the CEQA part of the project? Check in about where the Waterfront Drive process is, where is it going, if it's stalled indefinitely, is there a way to pursue to have that effort provide for a trail only alternative?
- Research the Waterfront Dr project and what bikeways are included. Does the plan use the railroad right-of-way?
- Existing trail gets to the mall but there is no official trail to the railroad tracks. There is a potential for Rail-with-Trail between Vigo and Bayshore Mall. If the Waterfront Dr project is already permitted but not moving forward, can the permits be used for a trail?
- Constraints in this segment include the Water District Pump and petroleum loading side.
- The team discussed connections from the city to the trail including I and 14th Streets.
- If Balloon Track Development is long-term, can trail development be perused anyway?

Potential Connectors to Waterfront Trail

- I St
- 14th St
- Del Norte St
- Truesdale
- Tydd – to meet potential private development trail from US101 to Myrtle
- Washington
- Trailhead at Truesdale
- City can talk to Schmidhauer about a route around property just south of Wharfinger

Hookton Slough to Eureka

Key Questions

- Use of North Coast Railroad Authority (NCRA) corridor: is the board open to railbanking?

Key Ideas

- Railbanking for connection near College of Redwoods US101 exit up to King Salmon and northward
- Railbanking could assist in preservation of the NCRA corridor
- Wildlife Refuge as a destination during key birding opportunities
- Tompkins Hill Road or the rail as an alternative to the US101 corridor.

Key Contacts

- NCRA Board –determine if railbanking is really open to consideration
- Landowner near reconstructed stretch of rail – see if they are open to expanding the rail prism to make a Rail-with-Trail a feasible option.

Attendees

- Facilitator: Tiffany Wilson, Planwest Partners and Mike Rose, Alta Planning + Design
- Note-taker: Emily Sinkhorn, NRS/RCAA
- Clif Clendenen, County Board of Supervisors, NCRA board
- Linda Atkins, City Council of Eureka, NCRA board
- Sean Brophy, Humboldt Bay National Wildlife Refuge
- Miles Slattery, City of Eureka Public Works

- Mike Knight, City of Eureka Deputy City Manager
- Adam Wagschal, Humboldt Bay Harbor, Recreation, and Conservation District
- Alyson Hunter, Caltrans

Notes

Tompkins Hill Rd. one of route alternatives

- Tompkins Hill Rd one of options from US 101 exit 268 to Hookton Road. College of the Redwoods (CR) is noted on the map as being a destination location.
- Mike Knight – Something would need to be done with Tompkins Hill Rd. as high traffic with CR. Having the route on Tompkins Hill Road would connect CR to the CCT.
- Contact Jimmy Smith as he would be great resource of who lives where and who might be interested

Trails through Humboldt Bay National Wildlife Refuge

- Potential opportunities to connect through northern HBNWR as part of the braided network?(Sean says will not happen)
- White Slough Unit of Refuge along rail corridor south of Fields Landing – less environmentally sensitive. Hunt area open twenty-seven days a year in northern Salmon Slough Unit. Rest of lands off limits – off limits to additional trails too. No bikes/dogs/horses/jogging in refuge. Refuge management philosophy is to manage for wildlife-based recreation only. Signage getting replaced this summer to say “No bikes on Hookton Slough trail. Trails closed in the evenings.”
- Comprehensive Conservation Plan (CCP) is HBNWR’s guiding document. CCP says to enhance tidal marsh in White Slough, but no recreation plan for White Slough Unit currently in HBNWR’s guiding document
- Times of year refuge open to recreation? Existing trails are open to hiking except for winter geese season
- Sean would like to see existing trails tied in to CCT as part of braided network. But not trails for through-traffic through the refuge. Maybe trail development plans in White Slough Unit- just salt marsh area just off of the rail berm. Multi-use trail here more feasible than in other parts of refuge.

Rail Corridor from Tompkins Hill Road exit north to Eureka

- Rail and US 101 only linear connections. How about rail-to-trail?
 - Clif not adverse to rail-with-trail. Members of NCRA board looking into freight operations up here, not opposed to trail on rail in meantime. At some point in the future if economic sense to haul and export out Humboldt Bay then trail would have to be taken up. There is a note about whether implementation money can be brought to the table if a trail is developed on a lease agreement with rail.
- Is rail prism wide enough right now for rail-with-trail? No. Therefore most feasible to railbank first.

- Feasible to later gain more width for prism? A potentially amenable landowner was indicated between Tooby and Pound roads with a recommendation to “widen now”
- Would be difficult to widen the prism or add a trail prism as there would be wetland impacts and bird nesting concerns on the rail berm.
- Linda thinks one and a half years ago NCRA would say no to considering rail banking – now they can consider.
 - Get trail option rolling and then plan B get rail running again. Would need to rebuild rail prism first with crushed rock as it is not very stable – built with river run rock.
 - Conservation Strategy Fund did a study showing there would be more economic value to convert rail to trail right now.
 - Wouldn't it be more economic for trail people to remove rail first as rail folks would have to do this anyways before rail could come back?
 - Preservation of the rail corridor is politically astute and forward-looking for the future. Preserve corridor and allow recreation use now.
 - HCAOG corridor preservation plan is an opportunity to address this.
 - Show the railroad there is a financial incentive to railbank
 - There could be opportunities for mitigation banking if the trail would be maintained by someone other than NCRA - if there was a trail coordinating agency. There could also be an incentive to preserve the rail prism as a trail so the wetland doesn't encroach on the highway
 - Preserving corridor prohibits species/people from living on rail line – incentive for railroad.
 - Sometimes trail development on a failing levee could be beneficial, could pay for levee repair
- Input from Supervisor Jimmy Smith is important for this area.
- White slough noted adjacent to the rail line north of the refuge

Hookton Slough to South Spit

Key Questions

- Determine willingness of McMurray property owner for easement or access.
- Determine willingness of Gillespie property owner for easement or access.
- Research Rancheria property boundaries.
- Find the railroad right-of-way along the south bay, Hookton Road area.
- Revise parcel lines on maps, they are not correct.
- Determine Hookton Road right-of-way (on west side).
- Talk with DFG about the dikes.

Key Ideas

- Existing trail runs to the McMurray property; potential subdivision, included may be possible open space and coastal trail easement to Phelan Rd. Then come back to Hookton and back over.
- Designate Hookton as a Scenic Drive for funding opportunity

Key Contacts

- McMurray Family
- Gillespie Family
- DFG
- NCRA

Next steps

- Determine willingness of McMurray property owner for easement or access.
- Determine willingness of Gillespie property owner for easement or access.
- Research Rancheria property boundaries.
- Find the railroad right-of-way.
- Revise parcel lines on maps, they are not correct.
- Determine Hookton Road right-of-way.
- Talk with DFG about the dikes.
- Hookton Road designation as scenic drive.

Attendees

- Facilitator: Stephanie Klein, Streamline Planning
- Note-taker: Jennifer Donlon, Alta Planning + Design
- Field Review: Kevin Wright, NRS/RCAA
- Eric Nelson, USFWS
- Tom Hofweber, County Community Development Services
- Bruce Cann, BLM

Summary

- Existing trail runs to the McMurray property. Potential subdivision right, included may be possible open space and trail easement to Phelan Rd. Then come back to Hookton and back over.

Notes

- Tom McMurray owns two parcels along the coast where Hookton Road turns west. He may be interested in discussion about the trail. If he can subdivide the lots he could consider an open space easement.
- Parcel lines are not correct.
- Possible easement at the top of the bluff.
- At high tide there is no trail.
- What about levee continuing west? That alignment would need to consider the Wiyot Reservation and Gillespie property (forested area just west of Rancheria).
- Past the draw there is an old dike with two breaches in it. That alignment would get the trail to the South Spit; however there are some wetlands and may need a boardwalk.
- County owns some road right-of-way between South Spit and FWS land.
- A Class III bike route with Share the Road signage is possible because of low traffic volume.
- Rancheria access: it would be good to get a better survey of the area. There is a fence line and it may have been surveyed by the Rancheria. Rancheria may have wanted to swap land to have access to the bay so they may not have access to the bay (FWS). CCT team should get more information about property boundary at north end of Rancheria towards the Bay.
- DFG will not be opening up an access in SW corner of Bay. Although the Tribe is interested in having more gathering rights in DFG land (Table Bluff Ecological Preserve).
- DFG does not allow access in the forested area above South Spit because of the presence of a population of the endangered western lily.
- DFG formerly had interest in swapping with Rancheria to get connection with bay. What benefits Wiyot Tribe? Tribe interested in having improved access to DFG preserve; DFG does not want to increase access.
- The width of eastern Hookton Road is fifty feet (right-of-way) but team was not sure of ROW further west.
- Environmental concerns as there are a lot of wetlands and bluff so may not be feasible to change configuration of Hookton Road.
- If route was declared scenic route, could it be qualified for additional funding sources (FWS)?
- Tasks: Determine willingness of McMurray for easement/access
- Tasks: Get Rancheria property boundaries
- Designate Hookton as scenic drive
- Determine willingness of Gillespie

- There is an old railroad right-of-way but it's not on the map. The railroad may have run along bay but unsure where it goes.
- Levee needs stabilization. Expensive to improve dikes.
- The team should talk to DFG about the dikes.
- Existing trail marked on eastern portion of map.
- If there were an easement a possible alignment would be Phelan Road to Hookton Rd to Gillespie area. FWS may be amenable to an easement (FWS). It may be worth a trip out and hike the coast here.
- Property owners are worried about deer and trail users tearing up their fencing and letting deer in.
- There is equestrian use on South Spit but not much other equestrian use now. FWS does not allow equestrian use on the other trails in the area because the trails are too small.
- Environmental concerns kept alignments off the bay including old dike that may be too expensive to fix.
- Look for way on levees to Crab Park.

Eel River Crossing

Key Questions

- Is there enough demand for a new bridge?
- How about a temporary bridge?

Key Ideas

- The gravel operations near the river may have some good locations for seasonal bridges.
- State Route 211 is a good bike route with wide shoulders
- The City of Ferndale is interested in bicycle tourism

Key Contacts

- Humboldt County to discuss access to gravel site
- Caltrans to discuss bridge retrofit or alternatives

Attendees

- Facilitator: Mike Rose, Alta Planning + Design
- Note-taker: Stephanie Klein, Streamline Planning
- Field review: Kevin Wright, NRS/RCAA
- Jay Parrish, City of Ferndale, City Manager

- Stephen Avis, City of Fortuna Planner
- Tom Hofweber, County Community Development Services
- Stephen Kullmann, Wiyot Tribe

Summary

- State Route 211 is a good bike route. There is not a large pedestrian demand. Fernbridge is an issue for non-motorized users.

Notes

- What are the long-term objectives for Fernbridge? It is being left in place as is. No interest in moving it. There may be improvements; i.e. flashing beacons for bicyclist crossing but no discussion for pedestrian crossing (Jay likes this idea). A feasibility study for alternatives may have been completed but no project was pursued. It was likely decided volume on road may not warrant funding.
- If the drive is there, enough interest and use – it could warrant a bike/ped crossing.
- The team investigated the possibility of a seasonal bridge connecting Cock Robin Rd to Dillon Rd. Dillon Rd is currently overgrown and the crossing may have snowy plover habitat issues. Fish and Game owns a lot of the land in this area. This alignment would require a lot of improvements. Also, during the winter, this area is extremely muddy. County amenable to clearing brush blocking access through the Dillon Rd right-of-way.
- Possibility of a temporary or seasonal bridge next to Fernbridge.
- The snowy plover poses a constraint to a bridge.
- Problems with putting something in the riverbed. Volume would have to be high to justify the bridge and doesn't foresee it being feasible. The riverbed changes seasonally, changing the dimensions needed for the bridge.
- Bridge is historic so modifying the bridge is very difficult, if not impossible.
- There is a lot of gravel operation - a bit upstream from Fernbridge– maybe should look at those potential seasonal crossings.
- Tom says maybe for the county operation but not private operation. County is more amenable to folks accessing their gravel site. For example, the county allows folks access to fish. Recreation facilities could be a mitigation for the gravel extraction? (The public has the right to access the river at these locations and new access has been established at Leland Rock gravel site as a condition of approval of the Caltrans Alton Interchange Project.)
- Singley Road used to be a county road; however, a farmer closed off route. People who fish are upset about lack of access because they used to fish at Singley Hole. Fishermen could be potential user group to support CCT. This could be a potential alignment but it does not bring folks directly to State Route 211. Perhaps look at a pedestrian path down to the riverbed near Fernbridge.

- State Route 211 has a great shoulder for bicycle use but there are no facilities for pedestrians.
- Farm workers don't really use State Route 211 for pedestrian access. Bridge is historic so modifying the bridge is very difficult, if not impossible.
- Self propelled ferry? Not possible during the winter. Old ferry route left off from Singley Bar Road?
- Group feels there is not a lot of need for pedestrian access.
- Pretty sure the bridge was looked at relatively recently and found the foundation was pretty sound and didn't justify work on the bridge.
- Jay (City of Ferndale): remembers the community did not want the bridge changed at all; improvements would need to be justified by volume.
- The team asked what volume needed to justify need? It is difficult to determine need at a barrier point.
- City of Ferndale wants the opportunity to bring more types of tourists in.
- There is no history of rail accessing Ferndale.
- Ferry Road to the east: may be an option to connect to Fortuna.
- Levee access.
- Access near Miranda's Rescue.

Ferndale to Centerville Beach

Key Questions

- What improvements to the road could serve both local access and visitors?
- What improvements could be made to the county Centerville beach property and the new BLM access?
- How could Centerville connect to other walking and biking routes in Ferndale?

Key Ideas

- Centerville Rd is really the only viable access from Ferndale.
- The distance is better for bicyclists than pedestrians, improvements should assume that people may not walk all the way to the coast.
- The county is unlikely to increase the width of Centerville for the entire length.
- Safety signs and pullouts could provide some improvement.

Key Contacts

- Hank Seemann – to get further information about ROW width and drainage issues along Centerville Rd.
- Jay Parrish – to confirm points of connection to local routes.

- Bruce Cann – to discuss possible amenities and the upcoming process for the management plan for the Navy Base property

Attendees

- Facilitator: Stephanie Klein, Streamline Planning
- Note-taker: Jennifer Donlon, Alta Planning + Design
- Field review: Kevin Wright, NRS/RCAA
- Jay Parrish, Ferndale City Manager
- Bruce Cann, BLM
- Tom Hofweber, County Community Development Services

Next steps

- Touch base with Hank (County) to get Centerville Rd right-of-way.

Summary

- Centerville Road is the most likely option; however, this would mostly only serve bicyclists and not a high priority.

BLM and County Beach Property

- Bruce (BLM) told the team there are temporary regulations on BLM land prohibiting camping. Centerville Park and beach are day use only and not ideal to improve. BLM will develop a management plan soon for the 400 acre old Navy Base and the plan may include camping but it will depend on the public process. There are restrooms at the Guthrie Creek and Fleener Creek trailheads.
- Coast changes during tides and year to year so a CCT alignment on beach from Centerville to Cape Mendocino is not a viable option. The coast is pretty dynamic and will probably continue to be so. Improved signage on beach is needed to warn folks of changing tides.
- Jay (Ferndale) discussed how Ferndale residents are out walking and biking all the time. A full Class I may not be possible because of constraints but he thinks a smaller trail may be possible and be used.
- Have there been bike counts done in the area? None are known.
- Ferndale to Wildcat Rd. connection.
- Bikeway signage: There used to be a directional/time sign with a map at Wildcat Road at Ocean Ave giving time and distance to the coast but it no longer exists.
- Potential community connection would be to use local signage involve the community with an art component. This may be a region where signage and art could reflect local community.
- Jay noted that tourism is a part of Ferndale economy and they want to embrace it.

Notes

- Jay (City of Ferndale) noted that as you are coming out of Ferndale on Centerville there is a good opportunity for a trail. There is good width on the east end of Centerville Road here for bike/ped.
- Tom (County) and Bruce (BLM) noted that Centerville Road is a good connection to the BLM property on the coast.
- Low likelihood the County will widen the road because of low demand and topography. The team thinks a “Share the Road” signage program is the best option. Centerville Road improvement could include signing and turnouts may be a possibility. If shoulders were widened, drainage would need to be considered.
- Improvements to Centerville Rd may also need to happen at Centerville Beach. There have been a lot of storms, it took the roadway. County has considered moving the road back. There is no easement – the county would have to work with private landowner.
- Jay noted the team needs to think about automobile speeds on Centerville Road. Maybe think about traffic calming on Centerville Road at the curves near Poole Rd. There is low traffic demand that is mainly driven by recreation.

Mattole River Crossing

Key Questions

- Interest in local signage for local access and resources?
- Is it worthwhile to further improve the public access road off of Lighthouse Road for river access?
- Is a seasonal bridge feasible to cross at that point?
- Does BLM monitor whether trails and river crossings are accessible or not? Could someone call them for this information at the Mattole River mouth and south?
- Small grant may be available to develop a monitoring program for trail and river crossing conditions. Follow up on this offer.

Key Ideas

- River mouth closes to allow crossing during the summer
- Importance of outreach to landowners around county road to notify of plan to potentially increase use by peds and bikes
- Must send landowners mailings regarding the upcoming public workshop to prevent people feeling left out
- County-wide trail conditions/river conditions website or phone contact so hikers can determine if a route is passable or not

Key Contacts

- Michael Evenson- if conversation with BLM indicates that a seasonal bridge over Mattole is feasible then a conversation with this landowner would be necessary. The Evenson property is directly across from the BLM access road. Need BLM's permission to pursue this issue with the private landowner.
- Rondal Snodgrass

Attendees

- Facilitator: Dana Dickman, Alta Planning + Design
- Note-taker: Colette Metz, Planwest Partners
- Field review: Emily Sinkhorn, NRS/RCAA
- Bruce Cann, BLM
- Ali Freedlund, Mattole Restoration Council
- Peter Jaraus, State Coastal Conservancy

Notes

- Any options on the north side of Mattole?
- Any options to improve Mattole access?
- Many people use access route off Lighthouse Road
- Private property interests
- Parking along Zanone Beach is limited although there is legal access
- Mouth of Mattole estuary – shifts seasonally
- Also wide bar at mouth of Mattole all summer long that is primarily shallow but deep in some areas.
- Estuary closes during the summer – July through October – access allowed
- Improvements to Lighthouse Road could be beneficial as stretches are dangerous with one lane sections. Need improved signage to improve safety. May not be able to widen in some areas, such as where the road abuts the Mattole. Best times to use road are between November and May when river mouth open
- Public Access off Lighthouse Road –residents are proprietary over their land and resources and locals know access points but aren't interested in advertising them
- Need locals to help make signs and put them up. Local signs are the only ones will stay up. Safety signs may work but trail access signs won't work unless locals participate in development
- Elementary schools take ownership of local signs as they do safety and fire signs. Recommend for them to do trail signs locally as well

- Mattole Road outreach with landowners about more pedestrian/bike use on road rights-of-way? Shouldn't be a problem but need to let property owners know what is being planned which could mean increased use
- Above mean high tide on private property camping may not be too friendly on the coast. There are large stretches between ideal camping areas
- Protocols for public access – some landowners require waivers but there can be problems with hunters. Access through the Russ property at the base of “the Wall” on Mattole Road requires each individual to sign a waiver. There is a note on the Russ gate indicating that interested parties should approach the house to acquire/sign waiver
- Old Mattole Road – private road
- Look into seasonal bridge near BLM public access – would have to work with private landowner (Evenson) – USACE, DFG permitting
- Who do you call when there are problems? If a hiker doesn't know about seasonal access/crossing? May need volunteer coordinator or construct a website. Coastal Conservancy may have small grant funding for a program or website to be developed to implement this idea
- Public Meeting – NEED to contact landowners by mailing as they may get upset if they are not contacted appropriately. Post workshop announcement at Petrolia general store
- Program run by umbrella organization like Coastwalk to coordinate local volunteer efforts. Pacific Crest Trail is an example
- North of the Mattole crossing, the Zanone coastal access points could be better signed, preferably with locally made signage
- Mention of camping on legal access corridors
- Mention of camping within the beach corridor north of McNutt Gulch

Table Bluff Route Alignment

Key Questions

- What is the benefit to Wiyot Tribe to have CCT connection through their tribal lands?
- Parts of Eel River Drive have large shoulders but could there be improvements for bicyclist/pedestrian visibility?

Key Ideas

- DFG will not be opening up an access in SW corner of Bay; there are sensitive species on this parcel. But, the Tribe is interested in having more gathering rights in DFG land (Table Bluff Ecological Preserve), so there may be potential for future access built around tribal access

- Follow up on McMurray property easement (this easement is in discussion).
- Need to look for road route improvements along Hookton west of Phelan. East of Phelan, Hookton Rd is 50' ROW (Hank Seemann).
- Doubtful that Wiyot will put any tribal money into connecting trails to the reservation. (Kullmann)
- Eel River Drive roadway is more suitable for bikes than pedestrians.
- Primary pedestrian routes over Table Bluff appear to be Hookton Road to Table Bluff Road to South Spit, and South Spit to Table Bluff Road to Copenhagen Road. Tie in to Ocean Ranch DFG unit.
- Cannibal Island Road west from Loleta floods frequently but could be part of braided route to connect to Cock Robin Island and Crab Park coastal/Lower Eel River access points.

Key Contacts

- County Public Works could research road widths and post miles along Hookton Road and Copenhagen Road.

Attendees

- Facilitator: Mike Rose, Alta Planning + Design
- Note-taker: Colette Metz, Planwest Partners
- Field review: Emily Sinkhorn, NRS/RCAA and Sara Mosser, Planwest Partners
- Bob Brown, Streamline Planning
- Stephen Kullmann, Wiyot Tribe
- Hank Seemann, Humboldt County Public Works
- Stephen Avis, City of Fortuna

Notes

- A trail through tribal lands to Hookton or South Spit would raise a lot of red flags as tribe not likely interested in pedestrian access across tribal lands. Don't draw line through reservations. What is the benefit to the tribe to have CCT connection through tribal lands?
- There are some resource management issues and access issues along south bay.
- DFG will not be opening up an access in SW corner of Bay; there are sensitive species on this parcel. The Tribe is interested in having more gathering rights in DFG land (Table Bluff Ecological Preserve), so maybe this would be a bargaining chip.
- DFG does not allow access in the forested area above South Spit.
- Primary route could be up Phelan Rd. and through McMurray property easement (this easement is in discussion.)

- Need to look for road route improvements along Hookton west of Phelan. East of Phelan, Hookton Rd is fifty feet right-of-way (Hank Seemann). Hookton Road can flood near intersection with US 101.
- Potential opportunities for Wiyot cultural center at the reservation, but they are already developing those interpretative facilities at Indian Island. (Sara and Kullman)
- The Wiyot Tribe is not a Rancheria
- Doubtful to put any tribal money into connecting trails to the reservation.
- Parts of Eel River Drive have large shoulders but could there be improvements for bicyclist/pedestrian visibility? Eel River Drive roadway is more suitable for bikes than pedestrians.
- Eel River Drive closed 3/8 - 4/2 2010 for sinkhole repaired caused by culvert damage from the earthquake.
- Table Bluff Road is pretty but steep and narrow with potential for high vehicle speeds.
- Copenhagen Road could be pedestrian route from South Spit to Loleta. County road with potential high vehicle speeds but has greater visibility than Table Bluff Drive.
- Cannibal Island Road west from Loleta floods frequently but could be part of braided route to connect to Cock Robin Island and Crab Park coastal/Lower Eel River access points.
- Eel River Drive could serve as primary bike CCT route over Table Bluff. Primary pedestrian routes over Table Bluff appear to be Hookton Road to Table Bluff Road to South Spit, and South Spit to Table Bluff Road to Copenhagen Road. Ocean Ranch Unit of DFG land is off Table Bluff Road west of the junction with Copenhagen Rd. Would be good to tie into this coastal access point.
- County Public Works could research road widths and post miles along Hookton Road and Copenhagen Road.
- Culturally significant areas around Table Bluff but no issues if you stay on roadways.
- What can be done to curb dumping at Crab Park? Maybe increased use; establish facility; mandatory trash pickup countywide; patrolling (sheriff office; Department of Environmental Health – consequences/fines). Patrolling difficult because it would require around-the-clock patrolling because dumping happens at all times.
- Route from Loleta to Fernbridge has potential to use railroad corridor. Tompkins Hill to Loleta tunnel is in good condition but prism and rails are under water at north end. There is a well established social trail using rail line from Loleta through the tunnel.

CCT: Operations and Maintenance

Key Questions

- What is the mechanism to coordinate for O&M?

- How to coordinate funding opportunities regionally and not just segment by segment, jurisdiction by jurisdiction?
- Can Transient Occupancy Tax be funneled to county?

Key Ideas

- The linear nature of trail systems traversing through multiple jurisdictions will require regional capacity building and multi-jurisdictional coordination.
- HCAOG as potential regional trail manager
- Use of Arcata Rail-with-Trail Request for Proposals (RFP) Trail Maintenance Plan/Standards as template for other jurisdictions
- Funding sources: TDA funds, Quimby Act Funds, Open Space District ballot measure once the economy is back up, special tax like Measure G in Arcata
- Partnerships with local organizations to discuss trails through ag lands
- Obstacles to regional O&M: O&M will come once regional trail is built, HCAOG has money for planning and O&M is inside that – environmental assessments and permitting, must have dedicated funding stream, HCAOG and JPA is political structure to deal with O&M

Key Contacts

- Hank Seemann – annual Hammond Trail O&M costs
- Marcella Clem – continue discussion of how to facilitate HCAOG becoming regional trail manager, active transportation funding such as SB 375

Attendees

- Facilitator: Tiffany Wilson, Planwest Partners and Mike Rose, Alta Planning + Design
- Note-taker: Colette Metz, Planwest Partners
- Clif Clendenen, County Supervisor/NCRA board
- Linda Atkins, City of Eureka Council/NCRA board
- Mark Wheatley, City of Arcata Council
- Karen Diemer, City of Arcata Environmental Services
- Hank Seemann, County of Humboldt Public Works
- Alyson Hunter, Caltrans
- Marcella Clem, HCAOG
- Mike Knight, City of Eureka Deputy City Manager

- Adam Wagschal, Harbor District

Summary

- Part of Arcata Rail-with-Trail Request for Proposals (RFP) does include a Trail Maintenance Plan/Standards. This could be used as a template by other jurisdictions in Humboldt County.
- Trail construction that is grant funded often has a twenty year agreement/commitment to maintain the facilities. For example, the Coastal Conservancy requires the County of Humboldt to maintain Hammond Trail segments funded through them.
- The linear nature of trail systems traversing through multiple jurisdictions will require regional capacity building and multi-jurisdictional coordination.
- The Hammond Trail is an example where a trail interfaces with sensitive areas and species. For example, the county can't provide access to Vista Point all year, which adds costs. Trails have a lifetime, just like roads, and need management. The county has a MOU with RCAA for the Hammond Trail. Hammond Trail included fencing and permitting.

Trails in Ag Lands

- Possibility in budget for "loss" reimbursement for trails through agricultural lands: fence-mending etc. Look at partnerships with Northcoast Regional Land Trust, Buckeye Conservancy, Farm Bureau, Ag Extension (ag tourism grant). Work towards standards for trail through ag lands.

Funding sources for O&M discussed

- *TDA funds*, which primarily goes to transit; surplus funds go to management; some gets funneled to cost share of trail construction and trail maintenance. County gets TDA funds through HCAOG. \$65,000 to recreational trails for County.
- *California Conservation Corps* funds some segments of trail.
- *Quimby Act Funds* or in lieu funds, are currently used for Hiller Park and Clam Beach County Park. Quimby Act in CA requires developers to set aside open space for recreational purposes. Quimby funds could potentially be used for trails and potentially for maintenance.
- *Open Space and Trails Assessment District* won't be favorable for a while because of the recession. Poll citizenry to determine desire for trail O&M. A potential district boundary could include the area between Trinidad and Rio Dell, which is topographically most suitable for trail development (i.e., flat coastal terrace land). The Harbor District could potentially expand district boundaries to include this area. Some measure of polling is needed to conclude whether district is favorable; due to declining economic health, now is not the time for polling because the public would not support it. (Jurisdiction that built Arcata Pool).
- *Transient Occupancy Tax (TOT)* could be set aside for trails. Existing TOT collected is currently accounted for. Much of the trail system will be in the County, yet cities will benefit from the increased recreation.

Can TOT be funneled to county? There needs to be a way to share the economic benefit/costs.(Arcata EDSP – Experimental Disposal System Program?)

- *Special Tax*, such as Measure G in Arcata. Arcata has support for this tax because it is a small community. The basis for the tax became a conversion of O&M and safety.
- Due to *passage of SB 375*, there will be focus shift of bond monies to multi-modal development. This is an opportunity to collect O&M funds.
- *Build commuter trails* so can go after state and federal transportation funding.
- *HCOAG could potentially serve as the regional trail manager* – personnel and funds are still needed, including a Memorandum of Understanding between jurisdictions. Funds are available for planning (engineering and construction is part of planning).O&M is outside of this. HCAOG has the Joint Power Authority (JPA) structure and could formulate an O&M equation. There is much to consider, such as operational efficiencies that can be built into the JPA.

Obstacles to regional O&M

- Build the trail!
- O&M will come once trail is there.(What is needed to support O&M is to get a regional trail, such as the Annie &Mary built; financial support will come shortly after.)
- HCAOG has money for planning and O&M is inside that – environmental assessments and permitting
- Must have dedicated funding stream
- HCAOG and JPA is political structure to deal with O&M
- There are many examples where trail development outcomes are favorable (i.e., where a commuter route attracts vendors).
- O&M will dictate WHAT to construct. Easily maintained trails and durable bridge/crossing types will dictate long-term maintenance costs.
- State Parks will gladly build trail up to a standard that is easily maintained.
- Class II can easily be incorporated because maintenance is available (i.e., through road funds).

What is the mechanism to coordinate for O&M?

- There is an Annie& Mary subcommittee meeting scheduled by HCAOG.
- There will be unique formulas for each trail segment constructed, depending on the number of crossings/ facility types; each entity could maintain its own piece or a dedicated revenue source, such as an assessment district, can be utilized.
- Trail development – streamline process versus segment by segment
- Hank agreed to provide numbers of Hammond O&M annual costs.

Financial benefits/economic development to region

- Emphasize that CCT trails/trails can open commerce corridors

Appendix D: Humboldt CCT Public Workshop Survey

Appendix D: Humboldt CCT Public Workshop Survey

Please fill out this survey to help the project team understand your ideas for the routing of the California Coastal Trail route through Humboldt County. Your answers will be kept anonymous. Please place completed surveys in the survey box at the greeting table or give to a project staff member. Thank you for your input!

1. In which community do you reside? _____

2. Where and how often do you visit public lands and beaches along the coast of Humboldt County? List the areas you visit and circle how often you visit them.

_____ Weekly Monthly Couple of times a year Infrequently

_____ Weekly Monthly Couple of times a year Infrequently

_____ Weekly Monthly Couple of times a year Infrequently

_____ Weekly Monthly Couple of times a year Infrequently

3. Are there public coastal lands and beaches that you would like to visit, but can't due to concerns or gaps?

Yes _____ what and where is the concern? _____

No _____

4. In what ways do you use trails along the coast? (Circle all that apply.)

Hiking Walking Biking Equestrian Birding Family Other: _____

5. Is there one (or more) segment/s of the California Coastal Trail corridor that you have a strong desire to see constructed into a better trail or route?

Yes _____ please describe: _____

No _____ please describe: _____

6. Would you use the Coastal Trail route more often if there was a better connection for walking and riding to and from your community?

Yes _____ please describe: _____

No _____ please describe: _____

7. Do you have ideas about how to better direct visitors to services in your area and public access points to and from the coast?

Yes _____ No _____

Please elaborate: _____

8. Rank your priorities, 1 highest through 5 lowest, for the California Coastal Trail:

- Improved access to and from the coast
- Trails/routes for multiple users: walkers, cyclists, equestrians, birders, etc...
- Trails/routes for a specific user type: (please indicate) _____
- Connections between communities
- Connections to other trail systems (e.g. State Parks or BLM trail systems)
- California Coastal Trail visitor amenities or informational kiosks
- A trail at a specific location: _____
- Other priority: _____

Please share any additional thoughts on the California Coastal Trail through Humboldt County:

You may also return completed surveys to:

Humboldt County Coastal Trail Implementation Strategy

NRS/RCAA

904 G Street, Eureka, CA 95501

Fax: 707-445-0884 Phone: 707-269-2061 Email: emily@nrsrcaa.org

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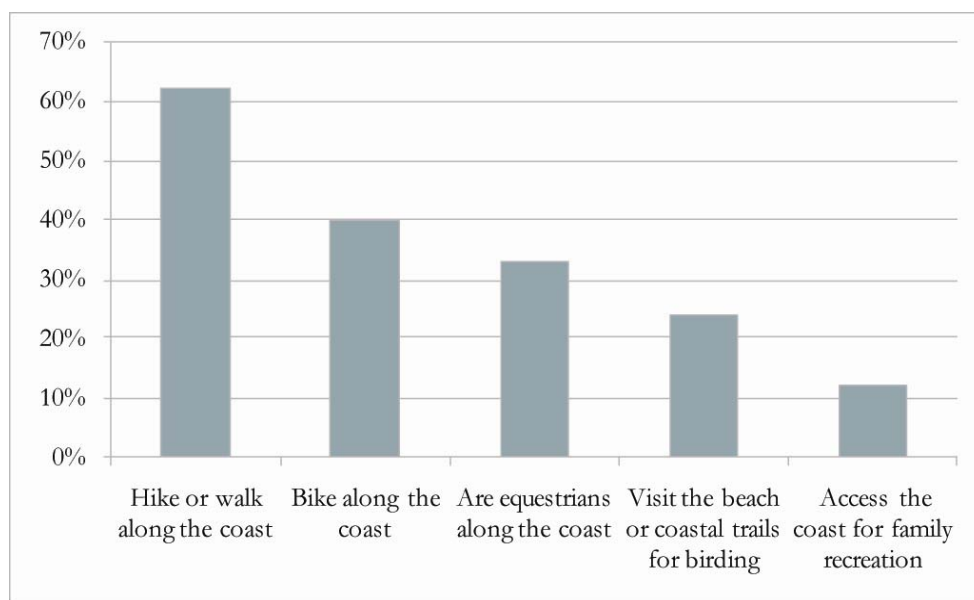
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Appendix E: Public Workshop Summary and Public Draft Comments

Public Workshop Survey Results

Workshop participants were encouraged to complete a survey and sign in to receive notice of the release of a public draft. The purpose of the survey was to inform the planning team of the type of demand expected for people who will be accessing the Coastal Trail. Survey respondents, as people who attended the workshops, undoubtedly have a strong interest in the coast, and access the coast quite often; seventy-one percent of respondents visit the coast weekly. As shown in the graph below, most survey respondents said they access the coast for more than one activity. Sixty-two percent of respondents hike or walk along the coast, forty percent bike along the coast, thirty-three percent are equestrians along the coast, twenty-four percent visit the beach or coastal trails for birding, and twelve percent access the coast for family recreation. Survey respondents currently access the coast throughout the county from Redwood Creek to the Lost Coast. Many survey respondents expressed that they wanted to see improved coastal access along the Eureka-Arcata corridor, the South Bay rail corridor, the Mattole Road, and at Little River to connect Westhaven and the Hammond Trail.

Figure E-1: Percent of Trail Users by Activity



Public Input by Workshop

Petrolia

Attendees at the Petrolia workshop had concerns about directing hikers and bicyclists to use the Mattole Road between Ferndale and Petrolia, as the road is in very poor condition, is narrow and winding, and has no services or overnight facilities. Many people voiced a need for clearer directional signage and more parking availability at coastal access points along the Mattole Road between McNutt Gulch and Cape Mendocino. Petrolia residents were not interested in more signage within the Petrolia area but did recognize the need for consistency of trailhead and place names in order for tourists to navigate in the Mattole.

Selected Workshop Comments

- Rather have a map with clarity than signs cluttering up the landscape
- Have BLM docent at cabin at mouth of Mattole River
- Have beach/tide information at McNutt Gulch north of the mouth of the Mattole
- Equestrians would like to see more parking available to trucks and trailers at the mouth of the Mattole
- Need for parking and signage at access points along the seven mile stretch of road along the coast south from Cape Mendocino
- Maps need clarity regarding names of points of interest. For example, locals don't know Lighthouse Rd. trailhead, but hikers come through looking for it
- Hikers need to be aware that gas or services are unavailable past 5 or 5:30 pm in Petrolia
- Add campsites and major trailheads to the maps
- Remove non-public roads from maps

Orick

The Orick workshop was a small gathering of nine attendees that provided insightful comments from representatives of the Orick Chamber of Commerce and Orick Community Services District, and long-time Orick residents and landowners. Attendees discussed the types of local use of the Redwood Creek levees and where residents typically access the levees. Residents expressed concern that the school crosswalk across US101 does not adequately serve some Orick neighborhoods. Many kids dash across US101 close to the Redwood Creek bridge, where many drivers speed without adequate sight-distance of kids crossing the highway to school. Equestrians at the workshop pointed out that even if a stretch of beach would be accessible for horses, the lack of adequate parking for trucks and trailers would prohibit equestrian use of that stretch of coastline. Attendees expressed high interest in maintaining the levees, establishing trails and making transportation improvements in order for Orick to remain viable.

Selected Workshop Comments

- Trails combined with beautification is needed in Orick; traffic-calming and a new hotel
- Downtown Orick has constraints to growth, i.e. permitting with the levee in disrepair and a failure risk
- Orick Chamber of Commerce wants to see a plan for equestrian trails. Orick needs more equestrian trails
- It is important to continue to maintain the levees, establish trails, and increase transportation improvements in order for Orick to remain viable in the long-term
- Possibility of a bridge being put over the Redwood Creek slough that is south of Redwood Creek
- A multipurpose trail should have an alignment on the west side of US101 around Freshwater Lagoon
- There is a boat launch at end of Stone Lagoon access road but horse trailers would have difficulty turning around at end of this road
- Route planning for equestrians: consider a four to six hour ride optimal

Ferndale

The Ferndale workshop included much discussion around equestrian access and the accessibility of the coast from Ferndale. Many workshop attendees voiced interest in improved non-motorized connectivity from Fernbridge, through Ferndale, to Centerville Beach. Workshop attendees helped the project team consider additional Eel River crossing options. Equestrians were concerned about the closing of access to levees around the Eel River sloughs due to property purchase by the Wildlands Conservancy and also voiced the need to consider a natural surface shoulder along any planned multi-purpose trail. Attendees also pointed out additional trails set back from the beach and dunes that equestrians often use in the Eel River area.

Selected Workshop Comments

- Concerns about speeding drivers and road slumps on Eel River Drive between Loleta and Fernbridge
- Need a separated trail along Centerville Road to the beach
- Suggest a multipurpose trail from Fernbridge to Centerville Beach with a parking lot on the west side of Fernbridge for cars and horse trailers
- Is it possible to apply for mitigation money from the proposed Bear River Wind Power Project to build trail to Centerville?
- Would like a trail system for equestrians from stables to the beach
- From Dillon Road across to Cock Robin Island, there are snowy plover habitat issues from April to October. During winter, the water is too high for a crossing
- Label Centerville Beach County Park and beach access

- No horses will be allowed on the new Wildlands Conservancy property. This could block equestrian beach access around sloughs. Equestrians would love to have access here to avoid OHVs at Centerville
- Tompkins Hill Road past College of the Redwoods to Hookton Road to Table Bluff Road is a great bike route. Big Foot Cycling club uses this route
- Concerns about lack of information on beach conditions south of Centerville

Trinidad

At the Trinidad workshop, many attendees voiced a strong interest in a non-motorized crossing option for Little River to connect Westhaven and Trinidad to the Hammond Trail. Several attendees suggested that a commuter trail to connect the Trinidad Rancheria to downtown Trinidad would improve pedestrian safety. Attendees frequently use local trails but feel that residents may be reluctant to improve trail signage for visitors. One attendee pointed out that pedestrian-prohibited signs are along US 101 around the lagoons on which we are designating a CCT bike alternative route. Trinidad residents expressed an interest in traffic calming improvements on Patrick's Point Drive. Attendees pointed out that there are few parking options between Trinidad and Patrick's Point.

Selected Workshop Comments

- Improving the Little River crossing for bikes/peds/horses is a high priority
- Clear route signage is important
- Must fix Hammond Bridge to preserve connectivity
- Tsunami awareness info needs to be available for beach travelers
- Traffic calming is needed on Patrick's Point Drive
- There is local support for Baker Beach trail
- Equestrians are willing to share beach with snowy plover and support management that protects them
- Do not use asphalt for horses. Crushed base rock/mix of fines/compacts are okay
- Need a commuter trail as alternative to walking Scenic Drive from town to Rancheria
- Need to have understanding between all trail users

Eureka

The Eureka workshop provided input about areas throughout the County. Much interest was centered on the rail corridor from Arcata to Eureka and Eureka to King Salmon. One attendee suggested tsunami/emergency evacuation funding to support trail development in King Salmon and Fields Landing. Local equestrians and walkers often use the rail corridor from King Salmon to Elk River. Some equestrian users expressed the desire to improve equestrian access

along the entire Samoa Peninsula. Workshop participants also voiced the need to include water trail access points on the Coastal Trail maps. In the Arcata Bottoms, it was suggested that the intersection of the Hammond Bridge and Mad River Road can be quite dangerous and there have been many close calls between cars and bikes. Improvements to the roads and this intersection could improve the safety of the Bottoms. Also in the Bottoms, multiple people wanted to see Old Samoa Road as part of the CCT alignment. Some attendees hoped to see a flashing light beacon installed for bicyclists crossing the Samoa Bridges. Within Eureka, many attendees wished to see improved non-motorized access along Broadway as not everyone can or wants to get off at Broadway.

Selected Workshop Comments

- Consider bike lock-ups/parking at coastal access points for people who bike with a trailer for kayaking
- CCT users need to be aware of tsunami dangers – whole campgrounds in Chile wiped away after megathrust earthquake
- There is high interest in trail connectivity around Fields Landing
- There are well-used local trails that connect Humboldt Hill to King Salmon but cross private property
- Equestrians currently use rail corridor from Elk River to King Salmon
- Show connection to Headwaters on the map
- Integrate water trails into map
- The US 101/Samoa Blvd intersection is important for access to HSU/Sunnybrae/east side of Arcata, and needs to be just as highly considered. This is an area with plentiful exits, and could use additional bike/ped awareness signage. A lot of walkers, roller skaters and hitchhikers come through this intersection.
- Add Arcata Marsh trails as coastal access trails to map
- People want to see trail connections up gulches and Eureka Slough
- Indicate throughout CCT plan that Pacific Coast Bike Route could also be a safe CCT route so folks don't get lost or confused
- The mid to south end of Broadway desperately needs sidewalk maintenance and connectivity. Not everyone can or wants to get off at Broadway.

Comments to the Public Draft of the Humboldt County Coastal Trail Implementation Strategy

The public draft of the Humboldt County Coastal Trail Implementation Strategy was released for public review and comment from November 1 to December 3, 2010. Copies of the public draft were made available at public locations throughout the County and through a website. Input to the draft was given through written comments and oral communications with the project team. A compilation of comments to the public draft is included below.

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- Please add Prosper Ridge and the connector trail down to Punta Gorda lighthouse onto the King Range map
- I would like to congratulate RCAA for the attractiveness and thoroughness of the Humboldt County Coastal Trail Implementation Strategy October 2010 Draft. It's an impressive document.
- We in Manila are supportive of a Caltrans SR 255 Feasibility Study which will hopefully recommend the widening of the highway through Manila and also in the sections you discuss (C3.02 - C3.06) to the west and south.
- Manila, Samoa and Fairhaven should be included as communities around Humboldt Bay
- Friends of the Dunes' Bay to Dunes Program for schoolchildren could be added to section 2.7.2.
- For the Waterfront Drive Coastal Trail priority project, please emphasize the view of the bay whenever possible. I prefer a change of paving materials along the way, highlighting special areas, and saving costs in others. I really like the idea of art as well as attractive and practical bike racks in well placed areas (safe, well lit, populated spots).
- I encourage the plan for through hikers to walk on the levee that does not travel thru the town of Orick. A trail on the rodeo side of town is safer, quieter, more direct, more pleasant.
- Pedestrians should have the right to use existing public rights-of-way between communities, including all portions of the US 101 corridor.

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Appendix F: Plan & Policy Review

The project team conducted a review of federal, state, regional and local planning documents relevant to the Humboldt County CCT planning process. Relevant policies, identified routes and permitting requirements are summarized below. Policies supportive of the development of the CCT and policies that potentially present barriers to the implementation of the CCT were identified and included in this review.

Table F-1: Summary of Planning Documents Reviewed

Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Standards	Cultural / Bio Resources policy	Notes
Federal Plans								
BLM King Range Conservation Plan Area	2004	Y	Y	Y	Y	Y	Y	
BLM South Spit Mgmt. Plan	2002	N	Y	N	N	N	Y	Designated vehicle access points to waveslope
BLM and USFWS Ma-le'l Dunes Access Plan	2008	N	Y	N	Y	Y	Y	Some areas closed to recreational access
Humboldt Bay National Wildlife Refuge Complex: Comprehensive Conservation Plan	2009	Y	Y	Y	Y	Y	Y	
U.S. DOT Accommodating Bicycle and Pedestrian Travel	N	N	N	N	N	N	N	Policy statement

Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Standards	Cultural / Bio Resources policy	Notes
Redwood National Park Backcountry Trail and Management Plan	2004	Y	Y	N	Y	N	Y	
Redwood National and State Parks General Management Plan/ General Plan	1999	Y	N	N	N	N	Y	Emphasis on cooperative management strategies
State Plans								
California Assembly Bill 1358	2008	N	N	N	N	Y	N	Complete Streets Act of 2008. Accommodation of all transportation users
California Assembly Bill 32	2006	N	N	N	N	N	N	Increase foot/bicycle trips
California Assembly Concurrent Resolution No. 211	2002	N	N	N	N	N	N	Integrate walking and biking into transportation infrastructure

Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Stand- ards	Cultural / Bio Resources policy	Notes
California Coastal Act	Adopt 1976, update 2009	Y	Y	N	N	N	Y	
Caltrans DD- 64-R1		N	N	N	N	N	N	Humboldt specific to integrating all modes of transportation
CA State Parks, Patrick's Point	1983	Y	Y	Y	Y	Y	Y	
CA State Parks Little River State Beach Restoration and Enhancement Plan	2009	Y	N	Y	N	Y	Y	
CA State Parks Recreational Trails Plan: Phase I	2002	N	N	N	N	N	N	Recommendations for future policy and agency coordination
CA State Parks and Recreational Trails Policy Notice No. 2005-06	2005- 06	Y	N	N	N	N	Y	Includes hierarchy of park manager roles for trails

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Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Standards	Cultural / Bio Resources policy	Notes
California State Coastal Conservancy Strategic Plan	2007	N	N	N	N	N	N	Document outlines SCC goals and informs policy
CA State Parks Dry Lagoon and Harry A. Merlo General Plan	1983	Y	Y	Y	Y	Y	Y	
Completing the California Coastal Trail	2003	Y	Y	Y	Y	N	Y	Guiding document for completing the CCT
Local Governments & Local Entities								
Humboldt County Local Coastal Program (LCP) Area Plans		Y	Y	Y	N	N	Y	Includes information for each community
City of Arcata Bicycle and Pedestrian Master Plan	2010	N	N	N	Y	Y	N	
City of Arcata General Plan: 2020	2010	Y	Y	N	N	Y	Y	Includes specific design standards for downtown
City of Arcata Parks and Rec. Plan	2010	Y	N	Y	N	Y	N	

Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Stand- ards	Cultural / Bio Resources policy	Notes
City of Eureka General Plan	2010	N	N	Y	N	N	N	Plan has general policies regarding bikeways
City of Ferndale		NA	NA	NA	NA	NA	NA	No plan to review
City of Trinidad Trails Plan	2001	N	N	Y	Y	Y	N	Revised in 2001
Manila Community Transportation Plan Phase II	2005	N	N	Y	Y	N	N	
North Coast Railroad Authority Policy and Procedures Manual	2009	Y	N	N	N	Y	Y	Section 0907 for the Northwestern Pacific Railroad Company line
Eureka Trails Committee Waterfront Trail and Promenade	2005	Y	Y	Y	Y	Y	N	
Friends of the Dunes Humboldt Coastal Nature Center Draft Trails Plan	2010	Y	Y	Y	Y	N	Y	

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Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Standards	Cultural / Bio Resources policy	Notes
Hammond Coastal Trail Ext. Analysis – Trinidad to Fortuna	2001	Y	Y	Y	Y	N	N	Plan contains goals & objectives, not policies
Hammond Coastal Trail - South Imp. Strategy Report	2005	N	N	Y	Y	Y	N	
Hammond Trail Extension Next Steps	2008	N	N	Y	Y	Y	N	
Highway 101 Interchange Community Design Fair	2010	N	N	Y	Y	Y	N	
HCAOG Humboldt County Corridor Preservation Report	2010	Y	N	Y	Y	Y	N	Document makes policy recommendations
HCAOG Regional Bike and Pedestrian Element	2008	Y	N	N	N	N	N	
HCAOG 2008 Regional Pedestrian Plan	2008	Y	N	N	N	N	N	Complete Street Policy and safety issues

Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Stand- ards	Cultural / Bio Resources policy	Notes
HCAOG 2004 Regional Bicycle Transportation Plan Update	2004	N	N	N	N	N	N	Plan purpose to encourage a unified bicycle transportation system in the county
HCAOG Regional Trails Master Plan	2010	Y	N	Y	Y	Y	N	Summarizes related planning and policy documents
Humboldt Bay Management Plan	2007	N	Y	Y	N	N	N	
Humboldt Bay Management Plan: Draft EIR	2006	N	Y	N	N	N	N	
Humboldt Bay Management Plan: Final EIR	2006	N	Y	N	N	N	N	
Humboldt Bay Trails Feasibility Study	2001	N	N	Y	Y	Y	N	
Humboldt Bay Trail Feasibility Study: Eureka to Arcata	2007	Y	Y	Y	Y	Y	Y	
The Humboldt Bay Interpretive Signing Program	2003	N	N	N	N	Y	N	Focuses specifically on interpretive facilities

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Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Standards	Cultural / Bio Resources policy	Notes
Humboldt County Coastal Access Issues Report (not released)	2004	N	N	N	N	N	N	
Humboldt Coastal Dunes Cooperative (COOP)	Map released in 2010	N	N	N	N	N	Y	
Humboldt Co. Bicycle Facilities Feasibility Analysis	1997	N	N	Y	Y	Y	N	
Humboldt County General Plan Update	2008	Y	N	N	N	N	Y	
Humboldt County Trails Master Plan	1978	Y	N	N	N	Y	N	
Humboldt People Powered Pathways (HP3)	2009	N	N	N	N	N	N	General connectivity goal and writing funding proposals
Audubon Draft Parcel 4 Objectives	2010	N	N	N	N	N	N	Objectives indicate that policies and standards will be included in final document

Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Stand- ards	Cultural / Bio Resources policy	Notes
McKinleyville Land Trust Mad River Bluffs Plan	2003	Y	Y	N	Y	Y	Y	
Humboldt North Coast Land Trust	Not released							Management plans in process
Orick Community Action Plan	2003	N	Y	N	N	N	N	
Pacific Coast Bike Route Study	2003	N	N	N	Y	Y	N	
Particulate Matter (PM10) Attainment Plan	1995	N	N	N	N	N	N	
Redwood Creek Integrated Watershed Strategy	2006	N	?	N	N	N	Y	
RFFI Management Plan Template	2004	Y	N	N	N	N	Y	Largely a timber management focus
The Wildlands Conservancy	Not released							Management Plan
Tsurai Management Plan	2007	Y	Y	Y	Y	Y	Y	

Plan Name (in alphabetical order)	Year	Trails Policy	Coastal Access Policy	Rec. Routes (CCT)	Rec. Routes (Regional Connections)	Trail Dev. Standards	Cultural / Bio Resources policy	Notes
Tribes & Rancherias								
Yurok Tribal Transportation Plan	2006	Y	Y	Y	Y	N	Y	
Yurok Tribe Tribal Park Concept Plan Draft	2005	Y	Y	N	Y	Y	Y	
Trinidad Rancheria Tribal Transportation Plan	2006	Y	N	N	Y	N	Y	
InterTribal Sinkyone Wilderness Council	Not released							Plan not complete

Federal Plans

Bureau of Land Management

King Range National Conservation Area Proposed Resource Management Plan and Final Environmental Impact Statement, Volumes 1 and 2 (2004)

While the CCT is not designated within the KRNCA proposed management plan and no policies are specifically associated with the CCT, all policies related to the north and south sections of the Lost Coast Trail also pertain to the CCT.

Cultural & Historic Resources

The KRNCA plan calls for the preservation, protection and study of cultural resources; emphasis is placed on “outreach, educational, and interpretive efforts” to meet these goals. Reduction of threats to cultural resources through natural or human-caused deterioration and/or conflict is high priority. The Backcountry and Residential zones are noted as focal points for resource protection efforts. Collaboration with local tribes and adaptive monitoring practices are integral to resource protection.

Aquatic Ecosystems & Fisheries (2-9)

The current plan mandates the restoration and maintenance of the ecological health of watersheds and aquatic ecosystems. Habitat restoration on fish-bearing streams in the Mattole watershed system is a key element of the overarching goals for aquatic ecosystems in the planning area; sediment reduction and restorative riparian silviculture are prescribed within the basin. The plan calls for inter-agency collaboration on restoration and protection of federally listed species within riparian and estuarine zones.

Wildlife (2-9 to 2-12)

Wildlife will be cooperatively managed with the CDFG and FWS to “achieve, maintain, and enhance natural wildlife populations, protect habitat, prevent damage, and increase public education.” The plan requires collaborative strategies to promote the recovery of federally listed species; specific habitat restoration strategies are presented for Northern Spotted Owls, Marbled Murrelets, Snowy Plovers, and Bald Eagles.

Terrestrial/Vegetative Ecosystems (2-12 to 2-18)

The BLM will manage for diverse habitat types historically occurring in the King Range. Specific policies are in place for management of specific plants (but not habitat types or ecosystems except for late seral/old growth groves), as well as forest products. Additional policies govern the management of disease (Sudden Oak Death) and invasive plant species.

Recreation (2-24 to 2-36)

Policy goals center on resource access and preservation. The BLM will provide adequate and timely maintenance to all resource user facilities, including kiosks, trails, signs and roads. Regulations will be designed to enhance visitor access and safety as well as protect resources. The plan calls for encouragement and promotion of

volunteerism and cooperative management. Universal Accessibility design standards are to be implemented in new facilities and retrofitted to existing facilities when possible.

Backcountry Zone

- Maximum fifteen “heartbeats” (humans & animals) on the Lost Coast Trail per group; ten heartbeats on inland trails
- No commercial groups allowed on July 4th and Memorial Day weekends
- Maintain existing fences to protect cultural resources
- Maintain existing facilities; do not develop new facilities
- Maintain minimum number of trail signs to ensure visitor safety
- Maintain existing network of trails
- Continue ongoing monitoring to assess impact of recreational use on cultural and natural resources

Frontcountry Zone

- Maximum of eight people allowed per campsite at developed campgrounds
- Nadelos group campground can range from fifteen to fifty people
- Maintain existing trails and facilities
- Continue ongoing monitoring to assess impact of recreational use on cultural and natural resources
- Maintain existing trails
- Install signs and interpretive kiosks as required to maintain visitor safety

Residential Zone

- Maintain existing recreational and interpretive facilities (including those located at Mal Coombs Park, Black Sands Beach, Seal Rock, Abalone Point and Cape Mendocino lighthouse)
- Maintain wheelchair accessible trails in Mal Coombs Park
- Continue monitoring visitor use and adapt management strategies to ensure continued protection of cultural and natural resources
- Continue to allow group use events on a case-by-case basis if such use does not result in resource damage

Lost Coast Trail (LCT)

Geology

- The Lost Coast Trail is routed along uplifted rock shelves formed by tectonic activity
- On the coastal slope of the King Range, Spanish Flat and Big Flat provide wide areas suitable for camping or rest areas. The flats are large alluvial fans created by upland sediment transported by streams
- The steep, crested slopes of the King Range are composed of large formations of sandstone, which is resistant to erosion. The slopes rise to an elevation of approximately 4000 feet within three miles of the coastline. This steep slope is prone to large landslides, some of which can reach the coastline strand. In the winter of 2003, the Buck Creek slide reached the Lost Coast Trail.

Visitor Demographics

- A 2003 survey showed a slight increase of minority population use of the LCT over the 1998 study
- The local Hmong population utilizes the majority of the mushroom gathering permits for KRNCA; the community is also active in hunting and other forest resource gathering
- The visitor base for the KRNCA is primarily non-local. Visitors from the SF Bay and Sacramento metropolitan areas account for the majority of the seventy-five percent of LCT users who travel more than one hundred miles to use the trail.

Management Issues - Wildlife

- Black bear encounters along the LCT have increased in recent years

Recreational Resources

- The LCT is well-known to outdoor enthusiasts, and is considered unique to the region and the west coast. The opportunity for coastal backpacking is a strong draw for many visitors
- The LCT and the King Crest Trail have been designated as National Recreation Trails
- The LCT is composed of two sections: LCT North and LCT South. The two trails do not directly connect due to geologic barriers
- The Chemise Mountain Trail is a connector linking the Nadelos and Wailaki campgrounds with the southern Chemise Mountain segment of the LCT. The trail rises about 700 feet over a distance of less than a mile
- The LCT is comparable only to a similar coastline trail in Olympic National Park in Washington,
- The LCT follows the coastline for fifty-six miles; the King Range segment is thirty-seven miles long. The remaining nineteen miles occur in the Sinkyone Wilderness State Park
- The Black Sands trailhead is the most heavily used trailhead to access the LCT. Parking lot congestion and overfill can occur on popular summer weekends
- The Mattole Beach trailhead is the northern terminus of the LCT; it is the primary access point for the Punta Gorda lighthouse, located three miles south of the Mattole Beach trailhead,
- LCT is the primary attraction to the KRNCA
- The classic route of the LCT runs twenty-five miles from Mattole Beach to Black Sands Beach. Two-thirds of the trek is located directly along the beach. The sand, cobbles, and gravel slow the pace of even seasoned trekkers. The remaining third of the trail moves upland and offers significantly easier hiking. The classic route is favored in the summer months due to prevailing North winds during the season
- Use levels have increased steadily over the past thirty years:

Table F-2: King Range National Conservation Area and Lost Coast Trail Visitor Usage

Year	KRNCA Visitor Days	LCT Visitor Days
1973	65,000	1,000
1986	No Data	3,200
1996	No Data	14,000
2001	150,000	17,000

Source: BLM Recreation Management Information System Data, 2002.

Equestrian use is light in the KRNCA, and predominantly focused on the LCT. The majority of equestrians are local visitors.

Coastal Trail Policies, Routes and Regional Connections

The Lost Coast Trail is the designated and signed portion of the CCT within the King Range Trail system. The trail is comprised of two complete trail sections described as follows:

Lost Coast Trail, north section: This main portion of the Lost Coast Trail is the “heart” of the KRNCA. It extends twenty-five miles along the beach from Mattole Campground/Trailhead to the Black Sands Beach trailhead at the north end of Shelter Cove.

Lost Coast Trail, south section: The BLM portion extends for a little over five miles from Hidden Valley Trailhead, rising 900 feet in vertical elevation to Chemise Mountain before winding down into the Sinkyone Wilderness State Park.

The two BLM CCT segments are currently disconnected due to coastal geologic constraints.

The KRNCA plan further describes the Lost Coast Trail as follows: The Lost Coast Trail is particularly distinctive as one of the longest stretches of backcountry coastal trail remaining in the western United States. Only Olympic National Park in Washington has a similarly long stretch of backcountry coastline. The Lost Coast Trail follows approximately fifty-six miles of coastline; the King Range segment is thirty-seven miles long, and the trail then continues south for another nineteen miles through the Sinkyone Wilderness State Park.

For more information on this management plan please visit:

www.blm.gov/ca/st/en/fo/arcata/kingrange/planning/king_range_plan.html

South Spit Interim Management Plan (2002)

As deeded owner of approximately 600 acres of the South Spit, the State of California conveyed to the Bureau of Land Management an interest in and management of property gifted to the state by Pacific Lumber Company. During the 1980s and 1990s this area was largely populated by transients who negatively impacted both recreational uses and natural resource values. This Interim Management Plan is intended to allow for a baseline level of services, public uses, resource protection, and habitat restoration until a long-term plan is developed. Objectives for the plan focus on species protection and habitat restoration, provide an active management presence, manage for a variety of recreational opportunities, and respect and provide for the cultural heritage of the Wiyot people.

Environmental, Biological, and Cultural Policies

- All uses within a designated plover habitat area are not allowed during nesting season
- A comprehensive archaeological survey will be completed prior to and to inform development of the next plan
- Intensive archaeological surveys will be completed where extensive developmental disturbance will occur, including the development of additional parking areas, restrooms, and placement of informational kiosks

- An Agreement will be developed jointly between the BLM Arcata Field Office and Table Bluff Reservation - Wiyot Tribe wherein tribal members will be given the free use of the South Spit for their traditional use and gathering of resources
- Surveying and monitoring will occur to map vegetative types and existing rare, threatened, and endangered species
- A multifaceted approach to plover protection includes surveying and monitoring of plover occurrence, recreational impacts monitoring, user education, and establishing protected plover habitat areas. There will also be a habitat restoration element.

Coastal Trail Policies, Routes and Regional Connections

- Designated vehicle access points will provide access to the waveslope
- There was no mention of new trail development within the management area
- There is a strong emphasis on constructive partnerships to encourage collaboration and resource protection between local managing jurisdictions

General Policies

- The area will be open to day-use only
- Equestrian use is provided for on the west side of South Jetty Road
- A visitor survey, monitoring user preferences and interests, will be completed in cooperation with Humboldt State University
- A brochure and map will be developed to educate users about facilities and the history of the land
- A Memorandum of Understanding (MOU) between the BLM, Humboldt County, and DFG will be developed to provide consistency with visitor
- A volunteer resident caretaker will live on-site to perform light maintenance duties, open and close the gate, and provide information for the visitors
- A variety of informational and interpretive signs will be developed to impart rules and regulations and educate about cultural and biological resources
- BLM will cooperate with the county on enforcement of policies and compatible land uses

Bureau of Land Management and the U.S. Fish and Wildlife Service

Ma-le'l Dunes Access Plan (2008)

This document was written cooperatively for a joint management area shared by the Bureau of Land Management and the US Fish and Wildlife Service in partnership with the California Coastal Conservancy. The document plans for an array of management, environmental, and access issues and considers both public goals for the property and goals between the two managing agencies. The cooperative management area, located at the northern end of the north spit adjacent to Humboldt Bay, is approximately 444 acres in size. The management unit currently allows limited recreational access. The intent of this plan is to expand access for a wider range of recreational uses, prioritize the types of recreational experiences provided on the property, and improve on-site facilities including parking and restrooms.

Alternative A is proposed; it focuses on expanding recreational and coastal access. This plan still needs to undergo environmental review cooperatively between BLM and the USFWS. Please see Table F-3: Approximate Length of Trails at the Ma-le'l Dunes CMA for more information regarding the review steps.

A provision for a full-time on-site caretaker position is written into the plan.

Environmental, Biological, and Cultural Policies

- Casual trails will be removed and re-vegetated
- Fires would only be allowed in designated areas of Ma-le'l South
- Firearm use will be prohibited except for legal waterfowl hunting
- Education and environment restoration programs will continue and increase
- Preserve the functionality of floodplains and protect wetlands from degradation

The project was not deemed to have any cumulative impacts regarding cultural and biological impacts from increased recreation due to improvements made from the proposed alternative.

Coastal Trail Policies, Routes and Regional Connections

- Ma-le'l North is currently closed to recreational access, except for guided tours, while Ma-le'l South is currently managed for pedestrian and equestrian activity, as well as fishing and dog walking
- Equestrians and dogs will not be allowed at Ma-le'l North
- Ma-le'l South will allow group camping on a case by case basis
- Proposed improvements include improving roads and parking areas, increasing recreational amenities including vault toilets, water spigots, bicycle rack, cooking grill, and increasing the recreational facilities including new trails and kayak and canoe boat landing docks
- Future connectivity traveling south along the North Spit is proposed in cooperation with Friends of the Dunes. That process would require separate environmental review
- Access for people with disabilities would be provided at the Ma-le'l North and South parking and picnic areas and restrooms, and along approximately 2,800 feet (half mile) of trail on Ma-le'l North. Seasonal closure of a portion of this ADA trail is anticipated to accommodate nesting raptors.
- Both Ma-le'l North and South will allow vehicular access to the recreational facilities, though Ma-le'l North will limit vehicular access to Friday through Monday to preserve a high level of solitude for other users.

Table F-3: Approximate Length of Trails at the Ma-le'l Dunes CMA

Location/Draft Trail Name	Approximate Length, (ft)	Approximate Length, (miles)
Existing/Continued Hiking in Forest and Nearshore Dunes Trails		
Wonokw & Letik	5,250	1.0
Existing/Continued Equestrian in Nearshore Dunes Trails		
Latkak	4,200	0.8
Total Existing Trail	9,450	1.8
New Nearshore Dunes Trails		
Hudt	2,500	0.5
Ki'mak	2,600	0.5
New Latkak	1,900	0.4
	7,000	1.3
New Forest Trails		
Hop'o'y Loop	7,050	1.3
ADA	2,800	0.5
New Wonokw	1,450	0.3
	11,300	2.1
Total New Trail	18,300	3.5
Grand Total Length of Trails	27,750	5.3

Trail design standards for Ma-le'l Dunes are located in Appendix H: Design Standards Review.

U. S. Fish and Wildlife Service

Humboldt Bay National Wildlife Refuge Complex: Comprehensive Conservation Plan (CCP) (2009)

Humboldt Bay NWR is located in the vicinity of Eureka and Arcata with refuge units distributed around Humboldt Bay, the largest bay between San Francisco Bay and Coos Bay, Oregon. The Humboldt Bay NWR authorized boundary consists of 9,502 acres (3,379 acres owned in fee title) of freshwater, brackish, and salt marsh; agricultural wetlands; intertidal mudflats; eelgrass beds; and some of the most pristine dune habitats in the western United States. The CCP planning process helps achieve the individual refuge's purposes and the Refuge System mission by identifying specific goals, objectives, and strategies to implement on each refuge.

CCT specific:

State Coastal Conservancy: and Humboldt Bay Trails Projects (both water-based and land-based).

Friends of the Dunes: Humboldt Coastal Nature Center will provide the community with an easy point of entry to the coastlands and dune trails that will connect to the Ma-le'l Dunes Cooperative Management Area to the north, and Manila Community Services District to the south. The linked trail system will provide visitors with access to 1,000 acres of coastal dune habitats, and the nature center and an adjacent loop trail will be wheelchair accessible.

Coastal Access/Resources:

The refuge has two interpretive trails in South Bay, one each at the Hookton Slough and Salmon Creek Units. Peak viewing season from these trails is September through March for most species of waterbirds and raptors. On the Humboldt Bay NWR, Pacific brant and migratory shorebird viewing peaks from mid-March to late April.

Summer visitors will see many gulls, terns, cormorants, and pelicans, as well as resident egrets and herons. Waterfowl, raptors, and harbor seals are visible throughout the year.

One trail is open seven days a week during daylight hours (Hookton Slough Trail), and one is open daily from eight a.m. to five p.m. (Shorebird Loop Trail). The Hookton Slough Trail follows a tidal slough one and a half miles out along the south edge of the bay. The three mile round trip trail passes along grasslands, freshwater marsh, mudflats, and open water. Visitors can see herons and egrets, as well as shorebirds, waterfowl, and harbor seals. The 1.75 mile Shorebird Loop Trail passes near some of the refuge's best shorebird viewing areas. The trail affords a good overview of the diverse seasonal wetlands; an optional side trail goes to the refuge's photoblind. Interpretive panels along the way illustrate wildlife resources and habitat management practices on Humboldt Bay NWR.

Recommended Routes

Wildland and Wildlife Observation and Photography. Currently, the refuge maintains the 1.75 mile Shorebird Loop Trail on the Salmon Creek Unit, the one and a half mile Hookton Slough Trail on the Hookton Slough Unit, and approximately two miles of trails on the Lanphere Dunes Unit. All of these trails offer great opportunities for wildlife observation and photography. There is also a photoblind for use at the Salmon Creek Unit.

The Kimuk (meaning "whale" in Wiyot) Trail is a proposed new trail that will extend from the Tsoutsgish Trail up a large dune, past a dune overlook, over open sand and nearshore dunes, to the beach. It passes through the corner of Ma-le'l South/BLM property, a portion of Humboldt Bay wallflower populations, and nearshore dunes densely vegetated with European beachgrass.

The Dap (meaning "spruce roots" in Wiyot) Loop consists of portions of an existing trail through the forest that will loop northward from the Tsoutsgish Trail.

A small puncheon-style footbridge will be installed in the foredunes across the seasonal wetland.

The Hout (meaning "surfish" in Wiyot) Trail will be an open dune trail to the beach that extends from the forested Dap Trail. The trail will ascend a large dune, descend to nearshore dunes, and cross a seasonal wetland where it will continue over the primary dune system to the beach. Hikers can return to the forest by following this trail in reverse or by walking south on the beach strand for approximately 1,000 feet to a marked trail that re-enters the foredunes and returns to the Ma-le'l North parking area via the Kimuk Trail. The set of trails could also be hiked in reverse by starting at the Kimuk Trail. The Hout Trail may include the following improvements:

- A new, less steep forest exit, or forest egress, will be delineated at the Hout trailhead and cable steps will be installed to enhance access up the dune and out of the forest.
- The trail will be marked with trail markers at appropriate sight distances for clear trail delineation, as discussed in the signing section. In particular, a marker will be placed north of the large dune that is visible from the top of the forest dune egress steps.

For additional information please visit: www.fws.gov/humboldt/cct.html

U. S. National Park Service

Redwood National and State Parks General Management Plan/General Plan (1999)

In response to requirements that NPS and State Parks prepare management plans for the lands they manage, and to meet the need of cooperatively managing Redwood National Park as a whole, this General Management Plan/General Plan was created. The plan focuses on why the parks were created and what resource conditions and visitor experiences should be achieved and maintained over time. The plan seeks to achieve coordination between state and federal policies and outlines a series of management strategies and actions to guide future holistic management of the parks.

Environmental, Biological, and Cultural Policies

The plan sets forth a series of strategies to protect watershed resources, concerning road decommissioning and landform restoration. Watershed efforts will increase and landform restoration will be most heavily focused nearest to areas of high visitor use. Actions from the Natural Resource Management and Protection Section include the following:

- RNP will work cooperatively with surrounding landowners to protect NPS watershed resources
- RNP will lead a multi-jurisdictional effort to protect and restore the Redwood Creek estuary
- RNP will consult with NOAA Fisheries Service, USFWS, and the Department of Fish and Game regarding existence of endangered species or associated habitat
- RNP will inventory marine plants and animals and tidepool and other intertidal communities and monitor their condition
- There are a series of action items in the plan regarding vegetation management including the management of old growth and second growth forests, restoration of prairies, and fire management

Actions from the Cultural Resource Management and Protection Section include the following:

- Historic structures will be stabilized, protected, and preserved as appropriate
- Cultural landscape inventories or reports will be prepared to document seven cultural landscapes that occur within the park boundary
- The historical presence of the American Indian in the region will be regarded as an important cultural element of RNP. Ethnographic resources will be managed to prevent desecration with an emphasis on research
- Collections of cultural resources will be aggressively developed, including monitoring of park resources in collections outside of the parks. Curatorial activities will be consolidated into an existing facility

Recreation and Trails Policies

The following “strategies” are in response to key management issues of the parks:

- Visitor use will be limited to ensure no significant impact occurs to park resources and their values. This will require a site-specific visitor carrying capacity analysis. This strategy will include future improvements of parking, camping, and other park facilities to better manage the impact of visitor use
- An RNP plan addressing the planning and management of trails and the backcountry will be developed to ensure future user enjoyment of the parks (this plan has been written and a review follows)
- Demand for camping by various user groups will be evaluated regularly and planning of future campsites, both with vehicle access and in the backcountry, will be in response to evaluation findings and consideration of appropriate locations based on Management Zones
- A future expanded trail system will stem from a core of existing trails, allowing recreational opportunities for all user groups and allowing improved access to all of the parks’ primary resource settings. Trail planning and design will be focused on user safety and resource protection. The CCT is named as a high priority for trail future construction
- Freshwater Lagoon Spit will be managed as a day use facility. Overnight use will be phased out over three years. These strategies have largely been completed since the original plan was approved in 1999.

For more information regarding this plan, please find the original document online at:

www.nps.gov/redw/parkmgmt/planning.htm

Redwood National Park Trail and Backcountry Management Plan and Environmental Assessment

Redwood National Park is one of four individual parks that comprise Redwood National and State Parks (RNSP). RNSP consists of Redwood National Park, Jedediah Smith Redwoods State Park, Del Norte Coast Redwoods State Park, and Prairie Creek Redwoods State Park. The Redwood National Park Trail and Backcountry Management Plan and Environmental Assessment (Redwood National Park TBMP/EA) discusses the National Park Service’s (NPS’s) proposal to construct new trails, trailheads and backcountry camps in Redwood National Park and to manage backcountry use so that visitors enjoy park natural and cultural resources in a safe manner with minimal adverse impacts to those resources. The purpose of this action is to expand the trail system in the national park, to connect the national park trails with the state park trail system, and to provide park visitors with the opportunity to experience the full range of park resources and ecosystems. The Redwood National Park TBMP/EA identifies four project alternatives: Alternative A (No Action), Alternative B (Moderate Development), Alternative C (Recreation Focus) and Alternative D (Proposed Action, NPS Preferred Alternative).

Trail systems were developed over the years to serve each of the four individual parks that are now managed cooperatively as RNSP. There are currently only a few trails linking the park units that comprise RNSP or connecting with trails outside the parks. The 1999 RNSP General Management Plan/General Plan (GMP/GP) called for a comprehensive trail plan to guide development of an expanded trail system for the parks and for a backcountry management plan to describe policies and regulations governing visitor use of the backcountry in Redwood National Park. Policies for managing backcountry in Redwood National Park are described and analyzed in the TBMP/EA. Regulations are found in the Superintendent’s Compendium, which is updated annually.

The RNSP contains almost forty-five miles of equestrian trails. Thirty-four miles of equestrian trails are on the west side of Redwood Creek in the National Park. Equestrians can choose from rides that range from a few hours to several days. In the northern part of RNSP, the Mill Creek Horse Trail equestrian trail is open to hikers. The Little Bald Hills Trail equestrian trails are open to hikers and mountain bikers. Three backcountry camps (Little Bald Hills, Elam Creek, Forty-four Creek) serve the equestrian trails. The 1999 GMP directs that no equestrian trails will be provided on the east side of the Redwood Creek basin. The RNSP has more than thirty-two miles of bicycle routes and trails. These trails are accessible by wide-tire mountain bikes. All roads that are open to motor vehicles are also open to bicycles.

The NPS proposes to construct a minimum of two trailheads to serve trail users and backcountry campers, and to enlarge or redesign two existing trailheads to address safety and operational concerns, and increase the accessibility of the camps for users of all abilities.

Policies

The Redwood National Park TBMP/EA identifies the goals and policies listed below that are relevant to the Humboldt CCT Implementation Plan. Goals are long-term or general statements about trails and backcountry use that the NPS hopes to achieve over the next ten years. Objectives are more specific conditions that can be achieved in a shorter time.

Goals

Trail and Backcountry Management Planning Goals are to:

- Manage recreational opportunities and settings to protect resources, promote public safety, and avoid public use conflicts
- Provide opportunities for public access to the full range of RNSP resources and in a variety of locations
- Participate as partners in projects with mutual benefit that enhance the quality of the overall visitor experience
- Provide trail access to all parts of the parks for different user groups of all ages and abilities
- Develop a trail system that minimizes resource impacts and can be maintained effectively for resource protection and public safety
- Develop a trail network to provide both day use and backcountry/overnight opportunities

Objectives

CCT-specific Trail and Backcountry Management Objectives are:

- Complete the California Coastal Trail within RNSP boundaries
- Connect the California Coastal Trail to inland RNSP trails and to the Pacific Crest Trail
- Locate and construct trails so resources are protected and maintenance costs reduced
- Build out from existing access roads and trailheads to minimize new impacts
- Complete the East Side Trail in the Redwood Creek basin
- Connect park trails with public use facilities adjacent to the parks
- Increase the number of barrier-free trails and improve accessibility of backcountry camps

- Create loop trails with a variety of lengths and difficulty
- Construct or designate a limited number of new mountain bike trails where appropriate
- Develop a mountain bike loop on existing roads in the Coyote Creek basin in the national park
- Extend the length of stay possible in the backcountry by creating longer trails with backcountry camps located a day's hike from trailheads and other camps
- Provide primitive camping opportunities along trails on both the east and west sides of the Redwood Creek basin and elsewhere in RNSP, including the Coyote Creek basin
- Evaluate opportunities for developing trailheads, trails, and primitive camping opportunities along the West Side Access Road
- Establish at least one backcountry camp accessible by off-road bicycles

Cultural Resources

Park staff work with Yurok, Hupa, and Tolowa people in matters affecting local American Indians.

Approximately 141 archeological sites have been recorded within the national park. Three prehistoric coastal village sites near Enderts Beach and O'Men are listed on the National Register of Historic Places (NRHP). Most prehistoric sites are located inland and are primarily around the Redwood Creek basin, including five sites west and thirty-four sites east of Redwood Creek. Eastern sites are primarily located along ridgetops, which served as trail routes, and on midslope benches near springs and creeks. Twenty-six sites are listed on the NRHP as components of the Bald Hills Archeological District. Some historic trails and roads have been incorporated into current trails, including the Coastal Trail and the Little Bald Hills trail, which may follow a portion of the historic Kelsey Trail between Crescent City and Yreka. The majority of historic sites and structures in the vicinity of proposed trails, trailheads, and backcountry have not been evaluated for eligibility for listing on the NRHP.

The Yurok Reservation was established under the 1988 Hoopa-Yurok Settlement Act and includes 1,100 to 1,200 acres of federal lands and waters within the parks that are administered by the NPS. On Yurok tribal lands, a tribal historic preservation officer (YTHPO) has been delegated the authority to serve the same functions as the state historic preservation officer (SHPO) on non-Tribal lands. The NPS would consult with the Yurok Tribe through the YTHPO on projects that would occur within the Yurok Reservation.

Biological Resources

Two planning issues were raised during public scoping process. First, sensitive resources have to be protected from impacts from trail development and trail use. Second, the introduction of invasive exotic weeds and plants into the parks should be avoided or minimized. One strategy is to require equestrians and other stock users in overnight camps to bring in weed-free certified feed or pelletized food for stock.

Agricultural Resources

Three historic cattle or dairy ranches along the coast are visible from or located along the Coastal Trail within the National Park. Ranch elements include roads, remnants of fences or corrals, scattered farm equipment, and domestic trash dumps.

Park regulations prohibit stock users from allowing their animals graze on park vegetation and require stock staying in the backcountry camps to be confined to corrals or tied to picket lines or hitching posts provided.

Coastal Routes and Regional Connections

First, it should be noted that the CCT has different signage within the parks than outside of the parks.

The Redwood National Park TBMP/EA includes the following trail routes that could be incorporated into the California Coastal Trail:

- *Proposed trail O. Redwood Creek Beach Nature Trail, ADA-accessible, 0.4 miles.* This short interpretive trail would be a fully accessible boardwalk trail connecting the Redwood Information Center with the Redwood Creek Picnic Area. It would be part of the California Coastal Trail. The information center and the picnic area would serve as trailheads.
- *Proposed trail R. Gyron Bluff segment of the California Coastal Trail, 0.5 miles.* This short trail would connect Freshwater Spit with Stone Lagoon in Humboldt Lagoons State Park. This trail would be a segment of the California Coastal Trail.
- *Proposed trail V. Skunk Cabbage Ridge mountain bike loop, 4.2 miles.* This loop trail would originate at the Elk Meadow trailhead and follow former logging roads, including a portion of the 205 logging road. The Skunk Cabbage Ridge mountain bike loop (V) was planned and approved through the 1996 Davison Ranch planning process, and would be designated as a bike route under NPS rule-making procedures.
- *Proposed trail W. Berry Glen Trail, 2.1 miles.* This trail would connect the Davison Trail along Prairie Creek and other trails originating at the Elk Meadow Trailhead with the Lady Bird Johnson Grove trail and the remaining proposed segments of the East Side Trail (M). The Berry Glen Trail begins at US 101 in the vicinity of Davison Road in the same location as one terminus of the Berry Glen-Lost Man Creek Bike Trail (Z) and ascends the slope below Lady Bird Johnson Grove to meet the existing grove trail that is part of the East Side Trail. The Berry Glen Trail would be the westernmost segment of the East Side Trail. This trail in combination with proposed trail X described below would create a link between the California Coastal Trail and the partially completed East Side Trail.
- *Proposed trail X. Skunk Cabbage North Trail, 1.1 miles.* The trail would begin at the Elk Meadow Trailhead and run along the north side of Skunk Cabbage Creek to meet the existing Skunk Cabbage Trail, which is a segment of the Coastal Trail. The Berry Glen (W) and Skunk Cabbage North trails would be the links between the East Side Trail and the Coastal Trail. This trail would connect to the Trillium Falls Trail and run from that trail along the north bank of Skunk Cabbage Creek to connect with the existing Skunk Cabbage segment of the Coastal Trail where it crosses the headwaters of Skunk Cabbage Creek. This new configuration would allow the Elk Meadow trailhead to serve as the primary trailhead for the Coastal Trail in this area and reduce the safety hazard for vehicles trying to turn left across US 101 at the thirty-five mile per hour curve at Robinson Road. The existing Skunk Cabbage Trailhead would be retained for additional access to the Coastal Trail.

The Redwood National Park TBMP/EA identifies the following important regional connectors to the California Coastal Trail:

- Humboldt Lagoons State Park-Redwood National Park Link—A Stone Lagoon Horse Trail proposed by California Department of Parks and Recreation (CDPR) would provide equestrian access from near the Stone Lagoon Visitor Center to the West Side Access Road and the proposed A-9 Deck trailhead in the Redwood Creek basin. This trail would provide another connection for

hikers between inland trails in Redwood Creek and the Coastal Trail at Humboldt Lagoons State Park.

- Humboldt County-Orick Levees—The 1979 draft Humboldt County Trails Plan proposed that a multi-use trail be constructed on the Orick flood control levees. Establishing this connection through the town of Orick to inland park trails and the Coastal Trail via the Redwood Creek levees requires agreement among private landowners whose land borders the levees, the US Army Corps of Engineers, Humboldt County, and other agencies and individuals. This proposal is outside the scope of this plan and would require site-specific planning and design accompanied by appropriate environmental compliance documents.

Several trails and trailheads proposed in the alternatives are located in the vicinity of archeological resources, historic structures, cultural landscapes, and resources of ethnographic significance that may be impacted by proposed construction. Further evaluation and consultation under Section 106 of the NHPA will be needed when specific trail routes and trailhead locations are identified.

State Plans

California State Parks

It is the policy of California State Parks:

“to provide trails for accessing park features and facilities and to provide planning that will effectively meet near-term and long-term recreation opportunities. The Department, through public planning processes, will strive to meet the recreational, educational and interpretation needs of its diverse trail users by developing trails within state park units, consistent with unit classification, general plan directives, cultural and natural resource protection, public safety accessibility, user compatibility and other legal and policy mandates. Multi-use trails and trail connectivity with adjacent public trail systems will be considered in the development of trail plans or individual trails.”

The California State Parks Department Trails Policy requires that a formal trails planning process be completed prior to implementing changes in existing trail uses, in their designs or realignments, or for new trail construction and existing trail elimination.

California State Parks, Patrick’s Point State Park General Plan (1983)

The plan sets forth proposals for long-range management of resources, land use facilities and interpretation, trails and operations and classifications. The purpose of Patrick’s Point State Park is to protect, preserve, and make available to visitors the scenic, natural, historical, archeological, and recreational resources of this coastal region of Humboldt County. The general plan also discusses camping facilities, vegetation diversity, reintroduction of historic fire occurrences, and protection of scenic views. This area is a heavily used recreational site.

Environmental, Biological and Cultural Policies

- No artificial stabilization of the bluffs shall occur to prevent erosion
- No development shall occur on the hills above Agate Beach unless the department's geologist determines the site is safe from landslides and development will not be compromised within its useful life expectancy
- The areas currently maintained as meadow shall continue to be maintained as meadow
- Management of vegetation will promote the presence of native plant species over invasive species
- A prescribed fire management plan shall be prepared for the park
- No alien species shall be planted at Patrick's Point State Park
- Any rare or endangered species found within the park shall be protected and the supporting lands managed to encourage their perpetuation
- The department shall avoid undertaking projects that cause accelerated erosion to the HUM-118 cultural site. The Abalone Point trail shall remain open as long as it doesn't contribute to accelerated erosion to the HUM-118 cultural site
- The Yurok Village to be reconstructed will serve as a primary cultural resource

Specific proposals associated with the California Coastal Trail

- A State Parks policy exists allowing short-term free access into the parks. This policy addresses the Local Coastal Plan's determination that limited free access to the park should be provided to local residents. There is a free parking section available across the road from the main entrance, providing limited parking for this purpose.
- There is an allowance for future on and off-site interpretive facilities within the park
- The existing walk-in/bicycling campground is intended to serve those entering the park by foot or by bicycle

Agricultural Policies

Currently no agricultural practices are permitted within this state park. Harvesting mushrooms and other edibles is strictly forbidden.

Coastal Trail Policies, Routes and Regional Connections

Patrick's Point is intended to be a hub for the Pacific Coast Trail, now named the California Coastal Trail (CCT), by providing connecting trail facilities and overnight camping facilities. The CCT is intended to feed pedestrian traffic into the park, while the Pacific Coast Bike Route (formerly known as the Bicentennial Bicycle Route) will direct bicycle traffic to and from the park. The Redwood Coast Transit provides bus service from Arcata to Crescent City twice daily with an option to be dropped off and picked up at the Patrick's Point Drive exit. Park visitors need to walk approximately seven minutes from the highway exit to the park entrance.

Trail design standards for the Patrick's Point State Park are in Appendix H: Design Standards Review of this document. Trail management policies are in Appendix J: Trail Management.

The Patrick's Point State Park Plan is available at: www.parks.ca.gov/?page_id=24361

Little River State Beach Restoration and Enhancement Plan (2009)

This plan combines habitat restoration goals with improvement of recreational opportunities within the State Parks owned dune ecosystem. The Little River State Beach (LRSB) landholding is located adjacent to US 101 and some private landholdings, including and just south of the Little River near the mouth. The property is approximately 148 acres of beach and dunes. The location of the property lends itself as important habitat for a variety of species including the snowy plover and could act as a key link between the Hammond Trail and Scenic Drive. The LRSB plan covers the existing environment, outlines a strategy for habitat restoration including preferred restoration methods, outlines a plan for public access enhancement, and identifies methods for monitoring the effects of the strategies implemented from this planning effort.

Planning Specific to the CCT

The LRSB planning effort specifically identifies improvements related to the California Coastal Trail. The plan identifies the location of the CCT as running along the western edge of the paved frontage road adjacent to the State Parks parcel. From the existing Hammond Trail bicyclists will precede north along the west side of the frontage road, along the west side of the Highway Patrol Truck Scale Station, and will terminate near the south end of the US 101 Little River bridge. Hikers and equestrians will use a new crushed rock and dirt trail following the frontage road. This trail connects first to an equestrian trail and then to a spur leading up to the south end of the US 101 Little River bridge. Hikers will have several route options to choose from. Materials and labor for constructing the planned section of the CCT was estimated at \$31,269.00.

Parking areas will be designed so as not to interfere with traffic along the shoulder of the frontage road.

Construction of the CCT along the frontage road is projected to occur in years three and four of the construction period.

Recreation Regulations

The park is open to a variety of day uses including beach combing, surfing, hiking, and bird watching. Overnight camping is not permitted. Dogs, horses, campfires, and OHV use are not allowed in the beach and dunes habitat.

For more information on this plan, including restoration proposals, a copy of this document may be requested from the Planning Division of State Parks at PO Box 942896 Sacramento, Ca 94296. Design standards for bridges, signs, and other trail features are in Appendix H: Design Standards Review.

California State Parks, Recreational Trails Plan: Phase 1 (2002)

The California Recreational Trails Plan provides guidance for establishing and maintaining California's trail systems. Phase 1 is intended to serve as a general guide to local trail management agencies and organizations in planning future trails and developing trail related programs. Phase 1 will also lay the groundwork for a Phase 2 plan, which will incorporate hard data and generally accepted planning strategies and practices including additional public input and comment.

Basic Trails Philosophy

This plan recognizes that there are limited recreational resources in trail planning, and planning focuses on management of existing resources for as many users as possible while ensuring that conflicts between users are

kept to a minimum throughout the planning process. The plan intends to promote increased access to trails and greenways, and to promote the abundant benefits derived from them. There is additional emphasis on improving government relationships with the general public and private sectors. The overall goal of this plan is to meet the current and future needs of a diverse recreating public and to meet changing transportation needs.

Overview of Program Goals

Funding

- Develop adequate stable funding for planning, acquisition, development, and management of trails
- Promote state funding and identify new funding sources including the use of matching grants and the development of appropriate legislative support
- Encourage public agencies to include trails and trail planning into their normal operating budgets including operations and maintenance needs
- Provide grant programs or other funding to encourage the development of local trail plans

Trails Inventory

- Prepare regional and statewide inventories of existing, planned, and potential trail segments and foster cooperation amongst jurisdictions and other groups in collecting a robust data set of trail user information.

Land Use Planning

- Promote the inclusion of trail and greenway planning into all local and statewide land use planning processes
- Importance of protection of existing trail corridors and cooperation with future proposed development to ensure these corridors are protected and improved
- Increase emphasis on multi-use trails
- Emphasize sharing resources to develop, improve and maintain trails
- Recommend amending the California Subdivision Act to require a trails element in all future local government plans
- Promote education regarding trails amongst planners and policy makers
- Develop and maintain a complete trails GIS database and coordinate online trail information sites

Trail Advocacy and Collaboration

- Develop and encourage expanded cooperation amongst cultural resource, wildlife, and trail advocates to maximize resource protection, education, and trail use opportunities

Trail Research

- Promote trail research that looks at recreational use and access, and future needs

Statewide Trail Stewardship

- Promote adequate design, construction, relocation, and maintenance of trails
- Improve trail training opportunities for various stewards including volunteers
- Support efforts to ensure that all levels of government provide adequate funding for maintenance of trails
- Review and evaluate existing trail related educational programming

Encouraging Public Use of Trails

- Work toward a public database that outlines existing trails and trail facilities
- Promote volunteer participation in stewardship programs
- Promote public information and education efforts by land management agencies
- Encourage development of “close to home” trails
- Educate users about potential impacts to wildlife and the environment

Trail Accessibility

- Provide barrier-free or fully accessible trails that offer a variety of features and experiences
- Work to understand trail user needs
- Assist communities and trail managers with trail assessment and design
- Establish a technical assistance program for accessibility guidelines

Multi-use Trail Cooperation

- Work to establish additional multi-use trails where appropriate and reduce conflicts between users

Private Property Owners

- Support open communication and greater compatibility between public access and private lands and property owners
- Identify funding sources to encourage public use of private lands

Trails Programs Leadership

- The Department’s Statewide Trails Office will continue to guide and encourage trails and trail programs throughout the state of California

Phase 1 of the California Recreational Trails Plan is available at:

www.parks.ca.gov/default.asp?page_id=23443

California Department of Parks and Recreation Trails

Policy Notice No. 2005-06

Policy

- Provide trails for accessing park features and facilities and provide planning that will effectively meet the near and long term recreation opportunities
- Meet the recreational, educational, and interpretive needs of diverse trail users
- Multi-use trails and trail connectivity with adjacent trails will be considered in the development of trail plans or individual trails
- All trail plans, trail development, and trail management will be in compliance with CEQA

Guidelines

- The Department's Trails Handbook serves as the guideline for trail design, construction, survey, operations and maintenance standards. A summary of the design standards can be found in Appendix I: Trail Design Standards. Operation and maintenance standards are located in Appendix J: Trail Management.

Delineation of Responsibilities

- District/sector/park units: District Superintendents will be responsible for addressing trails issues
- Field Division Chiefs: Provide statewide consistency reviews for Unit Trail System Plans and for specific District trail project decisions
- Deputy Director, Park Operations: Responsible for the final resolution of trail-related issues brought forward by the Field Division Chiefs and the Statewide Trails Manager
- Accessibility Office: Reviews trail projects for compliance with accessibility guidelines
- Statewide Trails Office: Assists with planning and development of Unit Trail System Plans and review of plans prior to approval, support for grant application preparation, and assists with resolving user and use conflicts
- Department Training Center: provides ongoing training regarding trail development, tool use, etc

State of California Department of Parks and Recreation Trails Policy Notice No. 2005-06 can be found at:

www.parks.ca.gov/pages/1324/files/2005-06_trails_policy.pdf

Completing the California Coastal Trail (2003)

The State Coastal Conservancy, in consultation with the California Coastal Commission and California State Parks, recently completed a study of opportunities and constraints associated with the state's objective to complete a multi-use trail along the entire coastline.

- Provide a continuous trail as close to the ocean as possible, with vertical access connections at appropriate intervals and sufficient transportation access to encourage public use

- Foster cooperation between state, local and federal public agencies in the planning, design, signing and implementation of the Coastal Trail
- Increase public awareness of costs and benefits associated with completion of the Coastal Trail
- Assure that the location and design of the Coastal Trail is consistent with the policies of the California Coastal Act and local coastal programs, and is respectful of the rights of private landowners
- Design the California Coastal Trail to provide a valuable experience for the user by protecting the natural environment and cultural resources while providing public access to beaches, scenic vistas, wildlife viewing areas, recreational or interpretive facilities and other points of interest
- Create linkages to other trail systems and to units of the State Park system, and use the Coastal Trail system to increase accessibility to coastal resources from urban population centers

California State Coastal Conservancy Strategic Plan (2007)

This plan discusses a series of objectives that act to provide a policy reference for the Conservancy, assist agencies in coordinating work with the Conservancy, and explain necessary management oversight and funding allocations at the state level. The plan clarifies Conservancy business principles and outlines project selection criteria. The plan summarizes a list of Conservancy programs, of which the CCT is a key coastal access mandate. Goals outlined in the plan related to the CCT, coastal access, and affected resources of the coast are as follows. Goal 1 outlines objectives specific to the CCT as they relate to the north coast. All other goals are listed for reference.

Goal 1: Develop the Coastal Trail as a major new recreational amenity, tourist attraction, and alternative transportation system, especially in urban areas, and develop networks of inland trails that connect to the coast and parks and provide other recreational opportunities.

- Clarify the route of the CCT through building consensus with the California Department of Parks and Recreation and the California Coastal Commission on alignment options
- Identify methods for closing gaps in the trail system
- Place CCT signs on existing trail
- Design approximately ninety-four miles of trail on public and private ownerships **including twenty miles on the north coast**
- Construct approximately ninety-three miles of trail on public and private ownerships **including forty miles on the north coast**
- Design approximately fifty-two miles of regional trails and river parkways along rivers and creeks to connect inland populations to the coast and expand recreational opportunities **including thirty miles on the north coast**
- Construct approximately fifty-six miles of regional trails and river parkways along rivers and creeks to connect inland populations to the coast and expand recreational opportunities **including forty miles on the north coast**
- Assist in twenty projects that secure real property or property interests to facilitate the development of the Coastal Trail and inland connecting trails, or for waterfront parks **including ten projects on the north coast**

Goal 2: Develop a system of coastal public accessways, open-space areas, and parks.

Goal 3: Revitalize coastal and inland waterfronts.

Goal 4: Acquire significant coastal resource properties.

Goal 5: Restore and enhance biological diversity in coastal watersheds.

Goal 6: Improve water quality, habitat, and other coastal resources within coastal watersheds and the ocean.

Goal 7: Preservation of working landscapes.

Goal 8: Provide non-regulatory alternatives to reduce conflicts among competing uses within the coastal zone.

Goal 10: Protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional importance.

Goal 12: Protect farmlands, including rangeland, from urban encroachment.

More information regarding these goals and other information from this plan may be found online at:

scc.ca.gov/strategic-plan-2007/

California State Parks Dry Lagoon State Park and Harry A. Merlo State Recreation Area General Plan (1983)

The plan sets forth proposals for long-range management of resources, land use facilities and interpretation, trails and operations and classifications. The purpose of Dry Lagoon State Park is to protect, preserve, and make available to visitors the scenic, natural, historical, archeological, and recreational resources of the lagoons region of Humboldt County. It is important to note that seasonal waterfowl hunting occurs on Big Lagoon and Stone Lagoon, which could impact trail users.

Environmental, Biological and Cultural policies:

- All facilities shall be carefully designed and sited so that facilities will not be endangered by future movement of geologic materials and rates of coastal erosion. The emphasis in design and siting of facilities shall be to recognize the constraints these natural hazards impose rather than attempting to arrest or stop the natural process. When impervious materials are used in construction, the potential for increased runoff shall be recognized, and the hazards of accelerated erosion shall be mitigated.
- No wetland area in the Park shall be filled in, developed, modified, or encroached upon by any activity that will have a significant detrimental effect on wildlife
- No non-native plants shall be planted in the Park

Specific proposals associated with the California Coastal Trail are:

- The nine mile segment of the California Coastal Trail is the backbone of the general plan trail section
- Integrate short loop trails into the CCT in the vicinity north and south of Dry Lagoon Area
- Trails should be for pedestrians only from Stone Lagoon Day Use Area to Redwood National Park, Redwood National Park is working on an equestrian trail network to accommodate their needs
- Dry Lagoon Area lot is popular and easy to access; there will be no expansion. The lot will serve general beach recreation, hike-in campsite, and the California Coastal Trail.

- Coastal Access/Resources: numerous rest stops should be provided on the Stone lagoon trail for views; crosswalk and signing will be necessary to provide safe access from parking lot across US 101
- Overnight parking and access to the CCT will be at the Stone Lagoon DUA and Dry Lagoon area

Biological Resources: Stone Lagoon Peninsula

- Should not be extensive: this area will be kept primitive for scenic quality and to protect natural resources
- Azalea hill: no development for public use may provide informal trails for natural observation,
- All trails will avoid archeological sites
- Develop interpretative trails

Agricultural Policies

Existing types and densities of agricultural use on state park property shall continue.

Coastal Trail Policies, Routes and Regional Connections

A coastal trail shall be developed through Dry Lagoon State Park and Harry A. Merlo State Recreation Area. Any equestrian use in the Park will be regulated by the State Park System staff. Policies for explicit areas in the Park are:

Stone Lagoon Day-Use Area:

- On the east side of US 101, a trail will be constructed to the Tall Trees Grove in Redwood National Park. Trails should be coordinated with the National Park Service trail plan and Redwood Creek Watershed
- Redwood National Park is planning an extensive equestrian trail along the western slope of Redwood Creek Watershed. The trail from Stone Lagoon day use area should be designed for equestrian and parking for this user group should be provided by Redwood Trail Campground.

Dry Lagoon Area:

- An interpretative trail will lead through an unusual natural resource from the berry patch parking area

Big Lagoon Overlook

- A lagoon access trail will be constructed at the southern end of the spur (at the breach point of Big Lagoon)
- Intersection of US 101 and the spur road will be redesigned for increased parking and will serve as the trailhead for the lagoon access trail

Big Lagoon Marsh Day-Use Area

- A crosswalk across mill entrance road will lead from the parking lot and run along the causeway. The trail will be cut into the inland slope of the causeway at a minimum of seven feet below the roadbed. The trail will likely need a suspended or cantilevered off the bridge. This trail will be part of the Pacific Coast Trail

Big Lagoon Marsh

- It is preferable to develop the trail on the inland side of the causeway for views; however, this may not be viable due to the need of two crosswalks over US 101. Alternatively the route can run along the coastal side of the causeway, with a trail from the proposed parking area along the inland side.

The California Coastal Trail will branch off onto three routes: over Stone lagoon peninsula and Stone Lagoon barrier beach (seasonal due to breaching); inland side of Stone Lagoon through Stone Lagoon Day-Use Area; from here, a third route will provide hiking access into RNP and Tall Trees Grove.

Important regional connectors are:

- Big Lagoon Overlook: fisherman will continue to use existing routes from the north end of the spur down the hill to the breach point
- Highest priority crosswalk over US 101 is Stone Lagoon day-use area

Dry Lagoon State Park and Harry A. Merlo State Recreation Area General Plan is available online at:

www.parks.ca.gov/pages/21299/files/105.pdf

Pacific Coast Bike Route Study (2003)

The Pacific Coast Bike Route Study, prepared for HCAOG and funded by a State Planning and Research Grant, provides recommendations regarding facility improvements and route alternatives for the Pacific Coast Bike Route (PCBR) through the county regions of Del Norte, Humboldt, and Mendocino. In Humboldt County, route alternates are identified that provide scenic, business, or historic interest opportunities, and priority improvements are recommended based on safety criteria and user needs. The study also addresses signing, ‘Share the Road’ educational programs, agency coordination, and cooperative management of the PCBR.

Regional Plans and Studies

North Coast Railroad Authority Policy and Procedures Manual, Section 0907 (2007)

This section discusses the way in which the NCRA may work to plan and implement rail-with-trail and trail-on-rail projects in the rights of way that they maintain. The section covers how the NCRA will interact with proposed projects and lead public agencies, what their role will be, and what is required during the implementation process within the Northwestern Pacific Railroad Company line corridor. This section also covers minimum standards for design, construction, safety, operations, and maintenance of trails within the corridor. The intended goal is to balance the NCRA’s legal mandate to provide safe and efficient current and future freight and passenger transportation service with the public’s desire for trails.

Trails-on-rail proposals will only be considered in the context of ensuring that safe and efficient freight and passenger transportation may be provided currently or in the future and in the context of the NCRA's agreement with SMART. This section acknowledges the usefulness of trails in protecting and maintaining the existing railroad corridor.

The public agency proposing the trail project is held to several planning, permitting, and implementation objectives within the NCRA's jurisdiction. Steps required include a proposed agreement with the designated Member Agency who decides terms, conditions, fees, and licensing requirements, a permitting process, a feasibility study process, a safety plan, and design submittal for approval by the Member Agencies. Design elements required include design standards, clearances, grade crossings, surfacing, utilities ingress and egress, landscaping, fencing, lighting, drainage, and access.

For more information on the Policy and Procedures Manual please visit:

www.northcoastrailroad.org/Acrobat/Trail_Guidelines_8-5-09.pdf

Humboldt Bay Harbor, Recreation, and Conservation District

HBHRCDD has a large number of planning documents ranging from ecological studies to terminal expansion feasibility studies. Each publicly-accessible document was scanned for relevance to the California Coastal Trail. Three documents were identified as relevant:

- Humboldt Bay Management Plan (2007)
- Humboldt Bay Management Plan: Draft EIR (February 2006)
- Humboldt Bay Management Plan: Final EIR (August 2006)

The above documents are summarized below.

Humboldt Bay Management Plan (2007)

The Humboldt Bay Management Plan serves as a high level planning roadmap for the Harbor District's decision-makers; it encompasses all aspects of the District's jurisdiction and mandate. A number of policies and ideas are relevant to the California Coastal Trail. Some are specifically related to trails; some are indirectly related to the CCT (such as interpretive guidelines and coastal access parking guidelines).

Relevant HBMP Sections

3.5.4 Trails: The central point in this section is that HBHRCDD is not directly responsible for land-based trails around Humboldt Bay; the majority of trails (and possible future alignments) fall under the jurisdiction of other agencies, including federal, state, and local government entities. The Plan specifically cites two trail systems on the surrounding lands as good examples of planning and implementation: the City of Eureka's Waterfront trail system, and the City of Eureka's Elk River Wildlife trail.

Water trails do potentially fall under the Harbor District's jurisdiction. The Plan calls for the district to act in collaboration with other agencies to design and implement water trails, but also to consider other uses of the bay which may be either complementary or at-odds with water trails.

Policies

ROP-1 Recreation planning to be an ongoing and coordinated function

The District shall consult with other land management agencies in the Humboldt Bay region, and with the interested public, to develop plans and programs that reflect adequate and appropriate access to, and recreational use of, Humboldt Bay.

RFA-10 Signage and parking for public recreation areas, access points, and trails

The District shall require or support others in requiring clear and appropriated (*sic*) signage and public parking for all public recreation and access projects. Access to the Bay and to recreation facilities shall be designated clearly, and shall be easily available from parking reserved for the public or from public streets.

RSA-9 Support for a water trails program for Humboldt Bay

The District, in cooperation with other public agencies and interested parties, shall assess and, if feasible, designate a trail or trails on Bay waters for use by kayaks, canoes, and similar small craft. Such routes, which should be focused primarily in the Arcata Bay and South Bay, shall be depicted on District maps and in other public information. The program shall incorporate necessary signage, safety, and environmental protection provisions.

RIO-1 Interpretive program

The District shall develop, or participate in the development by other agencies and non-profit organizations of, an interpretive program that identifies the environmental resources, port-related functions, public access and recreational resources, and the cultural history of Humboldt Bay.

RIO-2 Public Interpretive Center

In conjunction with other local agencies and interested parties, the District shall support the planning, siting, and, if feasible, the development of a public interpretive center in the central part of the Humboldt Bay region for interpreting the natural, cultural, and socioeconomic features of the region. This interpretive center would be intended to link with the interpretive centers at the Arcata Marsh and Wildlife Sanctuary (in Arcata Bay) and the Humboldt Bay National Wildlife Refuge (in South Bay) to form a Humboldt Bay interpretive system, where each center's theme would be unique, yet tied together through common Bay-wide issues and signage. The District's support shall take the form of sponsorship, together with the cities and other agencies, as well as in the form of soliciting funding and appropriate approvals from relevant local, state, and federal agencies.

RIO-3 Direct recreational users to appropriate areas of the bay

The District shall encourage visitors to visit and use designated recreational areas and shall actively discourage visitor use of sites designated for environmental resource conservation, protection of sensitive cultural resource activities or sites, or potentially dangerous coastal-dependent uses.

RIO-04 Support for consistency in interpretive signs and displays

The District shall encourage the use of the Humboldt Bay Interpretive Signing Program and Interpretive Signing Manual as suggested design guides for public interpretive signs and displays around the Bay.

Humboldt Bay Management Plan: Draft EIR (Feb 2006)

The Humboldt Bay Management Plan's (HBMP's) Draft Environmental Impact Report (EIR) examines potential environmental effects of the actions and policies set forward by the HBMP. The Draft EIR is structured according to guidelines meant to fulfill requirements of the California Environmental Quality Act (CEQA). A number of HBMP policies relate to trails; the Draft EIR content referenced below applies to those policies related (directly or indirectly) to trail planning, implementation, maintenance, and resource interpretation.

CCT Relevant Sections addressed by the D-EIR

12.1.3.3 Other Utilities and Services

Public facility maintenance, especially for streets and drainage facilities, is shared among the cities of Arcata and Eureka and the Humboldt County Department of Public Works, which also is responsible for planning for solid waste services and for trails and related recreational services.

13.0 Recreation and Coastal Access

13.1.6 Trails: Land-Based Trails

While some trails and potential trail locations do occur within the District's area of primary jurisdiction, most trails, even those that follow the Bay's shore, are most often located on lands where the District does not have direct authority. Designating, creating, and maintaining locations for non-motorized public use is the proper function of public agencies that administer land use on upland areas adjacent to the Bay. The City of Eureka's ongoing efforts to create a Bay trail along the City's entire waterfront is a good example of trail development and management by a local public agency. Another example is the City of Eureka's recently established Elk River Wildlife Trail.

As appropriately characterized in an area-wide study of trails by a local non-profit organization, the "backbone" of a future regional trail system through the Humboldt Bay area is the California Coastal Trail. While conceived several decades ago, the California Coastal Trail still remains to be completed in many areas, including around Humboldt Bay. Many local agencies and non-profit groups are working with the Coastal Conservancy toward the goal of eventually completing a continuous trail from Oregon to Mexico.

Policies

RSA-9 Support for a water trails program for Humboldt Bay

- Possible impacts: Water Quality

RFA-10 Signage and parking for public recreation areas, access points, and trails

- Possible impacts: Visual Quality and Aesthetic Considerations

Humboldt Bay Management Plan: Final EIR (Aug 2006)

The Final EIR document was released six months after the Draft EIR for HBMP. One additional possible impact was added to the Relevant Policy list from the Draft EIR.

Section 10.11 references Draft EIR Section 13.3.2, concluding that the section “adequately addressed the Draft Plan’s potential effects on recreation, including access to the bay’s shoreline and water” (Final EIR 97).

Humboldt Bay Trails Feasibility Study (2001)

The *Humboldt Bay Trails Feasibility Study* was prepared for the State Coastal Conservancy to encourage non-motorized access to and around Humboldt Bay. The study identified priority, potential and conceptual trail projects around Humboldt Bay, along with specific route alternatives for the California Coastal Trail. In addition, the plan addresses trail development standards, funding techniques, and regional trail planning.

Coastal Routes and Regional Connections

The following proposed projects and programs were identified as priorities for implementation. These projects were determined to have a combination of notable public support, managing agency interest, relative readiness for implementation, and identifiable funding source. Of the six, two priority programs are bay-wide in scope:

- Humboldt Bay Access Signing Program
- Humboldt Bay Water Trails Program

The other four priority projects include:

- Eureka’s Elk River Wildlife Area Access Project
- Humboldt Bay National Wildlife Refuge Trail System
- Waterfront Drive Streetscape Improvement Project
- Arcata-Eureka US 101 Corridor Bicycle Path

Potential and conceptual projects were identified for the following areas, but need more research.

- Samoa Peninsula, from the North Jetty to the Mad River Slough
- Northeastern Bay, from Mad River Slough to Fay Slough
- Eureka, from the Eureka Slough to the Elk River
- South Bay, from King Salmon around to the South Spit

Additionally, a number of other large-scale bay access issues were discussed, such as dog parks, camping, interpretive facilities and trail development standards.

For more information, please visit: www.nrsrcaa.org/baytrails/

Humboldt Bay Trails Feasibility Study: Eureka to Arcata (2007)

The *Humboldt Bay Trail Feasibility Study: Eureka to Arcata* was prepared for HCAOG to analyze the feasibility of developing a Class I facility between Arcata and Eureka on the eastern edge of Humboldt Bay. The study provides a needs analysis, trail design guidelines, opportunities and constraints by each trail segment, and estimated costs of implementation. Additionally, the study evaluates five trail route options and contains alignment alternative maps.

Applicable Feasibility Study goals identify the Humboldt Bay Trail to “be a key connection in the California Coastal Trail, promoting coastal access regionally and state-wide” and to “promote environmentally sensitive access to the Bay for wildlife viewing and a variety of recreational and educational activities.”

Applicable policies serve to provide Coastal Act consistency when planning and developing the Humboldt Bay Trail coastal access for non-motorized users, connections to regional recreational, educational, and community resources, and interpretation opportunities of natural, cultural, and historic resources in trail planning and design.

The Feasibility Study analyzed trail alignment options and designs, and provided cost estimates for construction. The trail alignment options analyzed in the study are as follows:

- *Option one: Rail with Trail.* Construct the trail on the west side of the railroad, within the boundaries of the NCRA right-of-way. The estimated total cost for option one is \$31,223,868.
- *Option two: Freeway with Trail.* Construct the trail within the Caltrans US 101 right-of-way. Total estimated cost for option two is \$42,389,233.
- *Option three: Combination of Freeway and Rail with Trail.* Construct the trail within the NCRA right-of-way and Caltrans US 101 right-of-way. Total estimated construction cost for option three is \$31,159,999.
- *Option four: Railbanking.* Railbank the railroad right-of-way and construct the trail on the rail road track alignment. Total estimated construction cost, including reconstruction of railroad facilities assuming return of rail service, is \$14,801,280.
- *Option five: No Project.* Continued use of the US 101 shoulder as the active transportation facility connecting the cities of Arcata and Eureka.

The Feasibility Study identifies option one as the preferred Bay Trail alignment. As a result of environmental limitations and physical constraints of the corridor, a detailed topographic survey, biotic studies, engineering studies, and an environmental review will need to be completed. Project implementation costs and funding availability may require project phasing, or trail completion in segments.

The Humboldt Bay Interpretive Signing Program (2003)

This document is a comprehensive guide to planning for, designing, writing, and constructing interpretive facilities for Humboldt Bay. The interpretive signing program was identified as a priority project in the *Humboldt Bay Trails Feasibility Study* (2001) for increasing access to Humboldt Bay through directional and educational signage. Development of the program involved a wide range of local, state, and federal agencies who worked collaboratively to establish the following goals:

- Encourage safe and appropriate public access around Humboldt Bay
- Promote inter-agency collaboration through a series of thematically unified interpretive sign templates
- Support local artists and businesses (as possible) throughout the process
- Encourage visitors to develop an overall sense of connection to, and stewardship for, Humboldt Bay

This program guide includes information on interpretive facility design, an outline of necessary partners to design and implement facilities, information on the foundation of interpretation, language, and other key interpretive elements. Interpretive design standards are summarized in Appendix I: Trail Design Standards of this CCT planning document.

Humboldt Coastal Dunes Cooperative (COOP)

The Humboldt Coastal Dunes COOP facilitates coordination of ecosystem management of coastal dune environments in Humboldt County through Coordinated Resource Management and Planning (CRMP). Stakeholders include BLM, Redwood National Park, Humboldt Bay NWR, CA State Parks, Friends of the Dunes, Wiyot Tribe, CA Department of Fish and Game, Humboldt County, Manila CSD, City of Eureka, Wildlands Conservancy, Caltrans, and the Harbor District.

The Dunes COOP covers coastal dunes environments, including forested dunes and coastal wetland. A dunes vegetation map will be released in 2010.

Humboldt County Bicycle Facilities Feasibility Analysis (1997)

The *Humboldt County Bicycle Facilities Feasibility Analysis* evaluates alternatives to improve and expand bicycle facilities within and between communities in the central coast of Humboldt County.

The study found substantial demand for a Class I facility between the cities of Arcata and Eureka and analyzed alternatives routes on Old Arcata Road, State Route 255, and NCRA rail corridors. Additionally, the study identifies advantages and disadvantages of improving other bicycle connections within the county and contains existing and proposed bikeways maps.

Humboldt County General Plan Update (2008)

The Humboldt County General Plan Update provides long-term development guidance for the unincorporated areas of the county. The Plan is categorized by land use, circulation, housing, resource conservation, open space, noise and air quality.

Land Use Element

The Land Use Element of the General Plan Update is intended to guide the pattern of growth and development through 2025. The following policies and standards may pertain to trail support facilities (i.e. shade structures, restrooms) developed in conjunction with the California Coastal Trail.

Policies

UL-P5 Community Identity. Preserve community features that residents value and create development that complements or adds to community identity and character.

UL-P20 Landscaping. All designs shall screen or soften the visual impact of new development through the use of landscaping. If appropriate, species common to the area and known fire-resistant plants should be used.

Circulation Element

The Circulation Element of the plan supports the development of bicycle and pedestrian facilities to “reduce vehicle miles traveled, enhance communities, increase the opportunities for an active and therefore healthy lifestyle and reduce greenhouse emissions.” The Circulation Element also encourages the safe, efficient, and enjoyable county transportation and trails system for the transportation and recreation needs of bicyclists, equestrians, hikers, and joggers.

Most of the existing bicycle and pedestrian facilities in the county are in the more urbanized areas. In rural areas, bicyclists and pedestrians generally share the roadway with automobiles.

The county does not evaluate the impacts of new development on bicycle and pedestrian facilities against defined LOS standards. Additionally, the need for bicycle and pedestrian facilities are determined on a “project-by-project” basis.

The following goals and policies of the Circulation Element impact the development of the California Coastal Trail.

Goals

C-G3 Interagency Cooperation. Coordinated planning between transportation system service providers and HCAOG for improved system design, development, operations, and maintenance.

Policies

C-P17. U.S. Highway 101 Safety Corridor Improvements. The County supports a strategy for improvements to the U.S. Highway 101 Safety Corridor that minimizes impacts to coastal resources, and treats all three main roads between Arcata and Eureka as one system. The strategy would develop an overall improvement plan considering motorized and non-motorized transportation that phases improvements on a prioritized basis between the three roads-U.S. Highway 101, State Route 255, and Old Arcata Road/Myrtle Avenue.

C-P32. Traffic Calming. Use traffic calming measures, where appropriate, as a means of providing safe pedestrian and bicycle access. Traffic calming measures include, but are not limited to, roundabouts, chicanes, curb extensions, and traffic circles.

C-P33. Protection of Designated Pedestrian and Bicycle Routes. The County shall review land development along and adjacent to designated pedestrian and bicycle routes to ensure that adjacent new development is consistent with established rights-of-ways and compatible with the safety and capacity of the corridor.

C-P34. Encourage Bicycle Facilities. Encourage the placement of secure, weather-protected bicycle storage facilities at bus stops, businesses, and public buildings. Encourage the addition of bicycle transport racks on public buses.

C-P35. Development of Railroad Rights-of-Way for Bicycles and Pedestrians. Encourage development of the Northwestern Pacific (NWP) and Annie & Mary Railroad rights-of-way as Class 1 bikeway (bike and pedestrian path) provided those uses do not conflict with regional rail transportation system plans.

C-P36. Develop a Regional Trails System. Support efforts to establish and connect a regional trails system extending from Trinidad to Garberville and east to Willow Creek and the Hoopa Valley, with linkages to the California Coastal Trail system.

C-P37. Encourage Equestrian Horse Trails. Encourage the development of equestrian recreation trails.

Conservation and Open Space Element

The Conservation and Open Space Element creates a framework of goals and policies for the use and protection of the natural resources and open space assets in Humboldt County.

Policies

The Open Space for Outdoor Recreation and Cultural and Scenic Values policy notes:

- Encourage a safe, efficient, and enjoyable county transportation and trails system for the transportation and recreation needs of bicyclists, equestrians, hikers, and joggers

Air Quality Element

The Air Quality Element documents the existing air quality conditions in the county and the sources of air pollution. The State of California emits about two percent of all worldwide greenhouse gas emissions (GHGs). The State has legislated a GHGs cap for 2020 of 427 million metric tons of carbon dioxide equivalents. To meet this cap, current GHGs must be reduced from fourteen tons of carbon dioxide per person to ten tons of carbon dioxide per person.

Strategies and policies to reduce greenhouse gas emissions and moderate climate change are as follows.

Policies

AQ-P1. Reduce Length and Frequency of Vehicle Trips. Reduce the length and frequency of vehicle trips through land use and transportation policies by encouraging mixed-use development, compact development patterns in areas served by public transit, and alternative modes of travel.

AQ-P7. Interagency Coordination. Coordinate with the NCAQMD early in the permit review process to identify expected regulatory outcomes and minimize delays for projects involving CEQA environmental review

AQ-P15. Preservation and Replacement of On-site Trees. Projects requiring discretionary review should preserve large trees where possible and mitigate for carbon storage losses attributable to significant removal of trees.

The Humboldt County General Plan Update can be found at: co.humboldt.ca.us/gpu/

Humboldt County Trails Master Plan (1978)

Humboldt County Public Works prepared a *Humboldt County Trails Plan* in 1978 as a sub-element of the General Plan. There was a range of trail types identified in this plan, and many (possibly most) of those identified are now obsolete or need updated research on current viability due to the amount of community development and changes in land use practices since that time. Almost none of the trails identified in the 1978 plan have been implemented, with the particular exception of the Hammond Trail. Recent trail and pedestrian facility planning efforts listed above are more relevant, and focus on multi-use trail development. Some of the potentially viable trails addressed in the 1978 Plan are not addressed in current planning efforts, such as the Redwood Creek Levee Trail in Orick.

Objectives

Objectives and recommendations listed in the Trails Master Plan that are relevant to the Coastal Trail development are:

- Determine methods for trails acquisitions, development, and maintenance which will utilize a maximum of user funding, community-contributed materials and services, and other trail establishment options of little or no cost to the county
- Provide policies and adequate enforcement of trail use regulations in order to protect trails and adjacent properties and maintain safe conditions for all trail users
- Retain existing and adopted trail rights-of-way through developing lands
- Encourage public and agency participation in all phases of trails establishment
- Coordinate trail system planning and implementation with cities, Caltrans, Humboldt County Association of Governments, and other appropriate agencies where proposed trail routes affect those jurisdictions
- Prohibit fires and camping on all trails within county jurisdiction unless otherwise specified
- Prohibit dogs on all trails near grazing lands unless otherwise specified
- Place priority on the sweeping and general maintenance of high volume bicycle routes

The trail design guidelines are in the Appendix I: Trail Design Standards of this document.

The Humboldt County Trails Plan can be found here:

www.humboldt.edu/~nvk2/resources/hctp/sec1/sect1.shtml

Humboldt County Association of Governments (HCAOG) Humboldt County Corridor Preservation Report (2010)

This HCAOG's sponsored document investigates the importance of corridor preservation, the roles of various jurisdictions in preserving corridors, prioritizes an existing catalog of corridors, and provides tools and direction for ensuring those corridors remain open in the future. Future potential alignments of the CCT depend on the availability of existing corridors preserved for future use. Some of the CCT related corridors named in the document include Fernbridge, The Eureka Waterfront Trail and Promenade, Centerville Road, and the railroad corridor running between Arcata and Eureka. This plan stresses the importance of including corridor preservation policies in local and regional plans.

Summary of General Corridor Policies and Legislation

The 1983 railbanking provisions of the National Trails Systems Act allowing unused railroad corridors to be preserved for possible rail reactivation if managed on an interim basis as trails

The Transportation Enhancements (TE) program, which has provided more than \$530 million for rail-trail acquisition and development

Humboldt Bay Area Plan: where potential public prescriptive rights of access to the shoreline are affected by new development, the project applicant shall maintain the corridor, provide an equivalent, or demonstrate that there is no interest in access

Policy #64 of Trinidad's 1976 General Plan states that a formal trail system will be marked out around Trinidad, publicized, mapped, and made to connect to several important roads and beach areas

Largely this document contains recommendations for policy types, looks at policy needs, and recommends strategic locations for future policies to ensure effective preservation of corridors.

For more information on this plan, including general corridor related policies, levels of jurisdictional involvement, preservation strategies and tools, and a complete list of corridors, please visit: www.hcaog.net/

Humboldt County Association of Governments (HCAOG) Humboldt County Regional Bike & Pedestrian Element (June 2008)

The Bike and Pedestrian Element is part of the Humboldt County Regional Transportation Plan. The plan complies with the guidelines established by the California Transportation Commission and is intended to guide the integration and development of multi-modal facilities in the county.

Safety

The 2008 Regional Bike and Pedestrian Element addresses trail safety concerns in the county. It is noted that it is a rare occasion to encounter a ranger or enforcement officer while on [off-street] trails or beaches. Where trails are located in isolated and wild areas, there can be personal safety risks to trail users. These risks can consist of natural conditions, wildlife and other trail users. The Element indicates that to deter possible safety threats, trail users often like to walk with their dogs. However, leashed dogs are not allowed on national and state park trails. Even some local parks do not allow leashed dogs on the trail.

Another area of concern stems from the conflicts that can occur between users on multi-use trails. Trail etiquette education is recommended to promote awareness, understanding and cooperation between trail users which include hikers, bicyclists, walkers and equestrians.

Road conditions within the county also present safety concerns for bicyclists. Bicycles can legally use all state and county roadways, although only a limited number of these facilities are constructed to safely carry bicycle traffic and motor vehicle in the same right-of-way. Additionally, in 1997, bike lane width standards on state roads was increased from four feet to one and a half meters (approx. five feet); consequently, many bike lanes constructed in Humboldt County before 1997 do not meet current state width standards. Minimal to non-existent road shoulders are noted throughout the Bike and Pedestrian Element as a deterrent to multi-modal transportation. In several areas, the roadway is the only viable route for pedestrians and bicyclists, yet these roads may have limited to no shoulder to accommodate non-motorized users.

Bicycle and Pedestrian Facilities as part of Complete Streets Concept

The Regional Bike and Pedestrian Element introduces the concept of complete streets. Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street. It is expected future federal transportation funding programs will include funding for complete street projects.

Policies

Policies from the Regional Bike and Pedestrian Element that related to the development of California Coastal Trail facilities are listed below:

- **BP-1 Policy:** Develop a cohesive system of regional bikeways that provides access to, and between, major activity centers, public transportation, recreation, and other destinations, and eliminate barriers to pedestrian and bicycle travel. [Linked to Performance Measures #9-Pedestrian Mobility and #10-Bicycle Mobility.]
- **BP-3 Policy:** Encourage and support the creation, or expansion, of comprehensive safety awareness, driver education, cyclist education and diversion training programs for bicyclists and motorists
- **BP-5 Policy:** Encourage bicycle-friendly designs for all streets and roadways, through new technologies, “best practices” standards, guidelines, and innovative treatments on new roadways and multi-use paths
- **BP-6 Policy:** Maintain pedestrian and bicycle facilities

Humboldt County Association of Governments (HCAOG) Humboldt County Regional Pedestrian Plan (The Plan), (June 2008)

The Humboldt County Pedestrian Plan (the Plan) addresses the need to provide pedestrian access and improve conditions to ensure the county and its communities are walkable and vibrant places to live. The Plan identified the existing pedestrian network in the county and made recommendations to improve pedestrian access. The California Coastal Trail was acknowledged as a pathway that would benefit recreational and commuting pedestrians of all ages. The Plan supports:

- Developing a continuous trail system around the east side of Humboldt Bay
- Completing the Hammond Trail extension between Mad River bridge south and further connections to Arcata and Eureka
- Working with private landowners to acquire public access rights at several locations from Centerville Beach to Cape Mendocino
- Encouraging Caltrans to design improvements for pedestrians and bicycles on the bridges crossing the Eel River and Mattole River
- Restoration of the Hammond Trail pedestrian/bicycle bridge across the Mad River
- Developing the Annie & Mary Trail in the abandoned railroad right-of-way to encourage non-motorized access to the coast by linking Arcata with Blue Lake and other inland communities

The Humboldt County Regional Pedestrian Plan is located at:

www.hcaog.net/docs/ped_needs08/Humboldt%20Ped%20Needs%20Assessment%2008.pdf

Humboldt County Association of Governments (HCAOG) 2004 Humboldt County Regional Bicycle Transportation Plan Update

The main purpose of the Humboldt County Association of Government’s (HCAOG) Regional Bicycle Transportation Plan is to encourage the development of a unified bicycle transportation system throughout

Humboldt County. This unified system is designed to serve the needs of bicycle commuters and recreational bicyclists and connect them to other regional non-motorized systems. The plan also meets the requirement of the State’s Bicycle Transportation Account (BTA) for funding eligibility.

For more information, please visit: www.hcaog.net/docs/RBT.2004/1.htm

Humboldt County Association of Governments (HCAOG) Regional Trails Plan (2010)

The 2010 Humboldt County Regional Trails Master Plan is a long-range planning and resource document to promote the development of an active transportation system in Humboldt County. The plan compiles active transportation information identified through previous planning efforts and documents the community’s vision for improved non-motorized access within and between communities. Also included in the plan is a constraints analysis, based on interviews conducted with local jurisdictions, to ascertain regional coordination and trail development obstacles.

The Regional Trails Master Plan was prepared as a resource document for local entities to facilitate active transportation system implementation in Humboldt County. Resource components include trail development strategies, a project prioritization tool, and funding source information to assist with successful project development, as well as trail design guidelines to provide regional trail design consistency.

Humboldt People Powered Pathways (2009)

“Humboldt People Powered Pathways” (HP3) (Natural Resource Services Division of RCAA, 2009) is a vision to improve active transport options within and between Humboldt communities *“to get more people traveling by healthy, environmentally beneficial means.”* The HP3 vision was crafted by a coalition of the County of Humboldt, cities, tribes, Caltrans, and community organizations. In 2010, with the Humboldt County Department of Public Works serving as the lead agency, the HP3 coalition submitted information to compete for \$50 million from the Federal Transportation Reauthorization Bill to implement HP3. HP3’s quantitative goal is: *“By connecting pedestrian, bicycle and multi-use trail routes and establishing collaborative education and encouragement campaigns, the HP3 coalition will increase safe, efficient non-motorized transportation by the inactive public by at least ten percent in seven years.”*

Audubon Draft Parcel 4 Objectives

Charged with constructing a plan for Parcel 4 along the Eureka waterfront, the Audubon Society has completed a draft outline of the document and a list of objectives. The draft outline covers the process of completing a planning document for the parcel and steps toward implementation of a trail system, trail user facilities, and educational facilities. The draft objectives document highlights important considerations for integration of organized public access to the parcel going into the planning process. Draft objectives for Parcel 4 are as follows:

- Safety
- Incorporate Eureka Waterfront Trail - Humboldt Bay Trail system
- Good access to wildlife viewing
- Emphasize native species and protect rare, threatened, and endangered species
- Preserve site history
- Provide opportunities for education/interpretation

- Maximize reuse of on-site material for development as an example of “green” development
- Restore wetlands where feasible

Humboldt County 2004 Coastal Access Issues Report

Bicycle lanes exist in Eureka, Arcata, McKinleyville, Fortuna (see figures on pages BP9-BP13 of the report). The City of Arcata provides the most interconnected system of bicycle lanes that facilitates access to and from various trip-generating areas. In Eureka, the bike lane system includes both north-south and east-west lanes; however, not all the City’s trip-generating areas are connected. Both McKinleyville and Fortuna have limited systems of bike lanes and designated routes.

The only example of a Class I bike path in Humboldt County is the Hammond Coastal Trail, in McKinleyville, which provides a non-motorized environment for both transportation and recreation purposes. It extends from Clam Beach to the Mad River.

The Pacific Coast Bike Route (PCBR) begins on US 101 at the California/Oregon state line, and ends 1,000 miles away, adjacent to Interstate 5 at the Mexican border. In Humboldt County, the trail diverts to Newton B. Drury Scenic Parkway, through Prairie Creek Redwoods State Park. South of the park, it rejoins US 101 for approximately forty miles, up to the City of Eureka. At Eureka, the PCBR immediately diverts from US 101, following a series of one-way city streets with lower traffic volumes. South of Eureka, it travels along US 101 approximately eighty miles to the Mendocino County line.

North Coast Land Trust

The North Coast Land Trust manages several properties along the North Coast stretching from just north of Trinidad south to Moonstone Beach. Currently there is an ongoing effort to construct management plans for all landholdings. Elements of each management plan will include descriptions of the history and physical character of each property and cultural, environmental, biological, and recreational policies.

Particulate Matter (PM10) Attainment Plan (1995)

The North Coast Unified Air Quality Management District (consisting of Humboldt, Del Norte, and Trinity Counties) is classified as a nonattainment area for particulate matter under ten microns (PM10). Under the California Clean Air Act, air quality districts must develop control measures to achieve and maintain ambient air quality standards. Among the control measures mentioned in the 1995 Attainment Plan are programs to accommodate bicycle use and land use development practices that enable people to walk to more destinations and reduce automobile use.

Redwood Creek Integrated Watershed Strategy (2006)

The goal of the Redwood Creek Integrated Watershed Strategy (Redwood Creek IWS) is to improve and protect water quality, water supply and aquatic and riparian habitat throughout the Redwood Creek watershed, including the estuary and coastal areas. The Redwood Creek IWS addresses these water quality issues by proposing projects related to flood control, sediment loads, summer water temperature, groundwater contamination, and aquatic and riparian habitat quality. The projects include short- and long-term flood control, restoration of the Redwood Creek Estuary, wastewater treatment for the Orick Community, Strawberry Creek restoration, erosion

control and prevention on private and public lands, Inner Gorge protection, and restoration and restoration of riparian areas along Redwood Creek and its major tributaries.

Humboldt County is responsible for the operation and maintenance of this project. The CDFG, Army Corps of Engineers, NOAA Fisheries, and the USFWS have regulatory authority and require environmental compliance and permits. The California Coastal Commission has permitting authority for actions that affect coastal zone areas. The levee reach downstream of the US101 bridge falls within the coastal zone and RNSP.

Objectives

The Redwood Creek IWS includes the following objectives that relate to water quality and biological resources:

Objective 1: Water Quality Improvement and Protection. This objective addresses high summer water temperatures, high sediment loads, and groundwater contamination which are impacting beneficial uses. Water quality issues in Redwood Creek affect public health, salmonid populations, and economic opportunities for the Orick community.

Objective 2: Protection and Restoration of Salmonid Species. This objective addresses threats to salmonid habitat, improvement of habitat quality, and restoration of watershed processes. It considers issues related to management of Inner Gorge slopes, reestablishing large, mature conifers for recruitment of LWD, reducing stream temperatures, and restoring the biological and physical functions of the Redwood Creek estuary.

Objective 3: Flood Control. This objective directly addresses flood control for the Orick community and estuary restoration. It considers issues related to the Redwood Creek Federal Flood Control Project which provides flood control for the Orick community, but also impacts important biological and physical functions of the Redwood Creek estuary. For many years, insufficient funds and environmental regulations have limited levee maintenance activities. Thus, the levees have now deteriorated and their ability to contain a large flood is impaired.

Objective 6: Partnerships. This objective ensures that the Redwood Creek IWS meets local needs and statewide priorities, and is implemented successfully and efficiently. It integrates well with other IWS objectives because cooperation forms the basis of partnerships. Partnerships broaden the resource base for projects (including people and financial support), and bring needed technical expertise for solving complex problems at both project and watershed scales. Partnerships also ensure various watershed interests are represented, and allow for multiple and sometimes competing views. The IWS envisions a partnership that extends outside of the Redwood Creek watershed and includes the North Coast Regional Water Management Group that encompasses northern California counties.

Recreation and Public Access

A recreation and public access strategy directly benefits the economic opportunities and partnerships objectives in the Redwood Creek IWS. Each year about 500,000 people visit RNSP (NPS-CDPR 1999) and the Orick community. Improved water quality and aquatic habitat in Redwood Creek will provide economic development opportunities through improved recreation beneficial uses, including fishing, swimming, kayaking, hiking, biking and bird watching (NCRWQCB 2001). Improved partnerships between the Orick community and RNSP can expand and integrate eco-tourism opportunities in the Orick community and nearby parklands. If implemented, long-term flood control will improve the levee system and restore the estuary, enhancing recreational opportunities and visitor enjoyment on lower Redwood Creek and the coastal area. A new wastewater treatment

facility in Orick could serve as a visitor destination for bird watching and walking if constructed with open ponds and wetlands. All of these activities will improve eco-tourism opportunities and socio-economic conditions in and around the Orick community, and provide tangible economic benefits (page 92).

Redwood Forest Foundation, Inc. (RFFI) Management Plan Template

The RFFI Management Plan Template is largely focused on the sustainable forest resource management of their Usal property. The plan includes no specific trail policies or designations but has some general guidance for recreation resources. The plan states that RFFI will provide recreation opportunities on the property, for the general public, as appropriate. Also, along with the protection of sensitive environmental and cultural resources, RFFI will protect areas of high visual and recreation value from negative impacts of forest management activities.

Local Plans and Studies

Area Plans under the Local Coastal Program for Humboldt County

Northcoast Area Plan

Trail-Related Development and Resource Policies

The following policies relate directly to trails within the plan boundaries; where applicable, the policies are divided into rural and urban categories.

Urban

No applicable policies.

Rural

Design Assistance Committee

3.42. E.10. Views from public trails, beaches, or public recreation areas into the development site shall also be considered.

Accessway Improvements and Funding

3.52. A.1. Minimal Improvements should be scheduled for unimproved access points in character with the rural nature of the communities they serve, and accessways accepted by the responsible entity or agency should include but shall not be limited to, the following as they are found consistent with the identified uses, modes of access and limitations as identified in Section 4.70.

- c. trails, stairs, and ramps
- g. signing of access points, trails and hazard areas

3.52. A.2. In reviewing improvements to accessways, the approving authority shall consider:

- d. the need to provide for public health and safety including the need for:
 - (6) topography of trails

Coastal Trail Specific Policies

3.54 The "Coastal Trail" shall follow existing public lands and public beaches but move inland to the nearest available public route where there would exist substantial conflicts.

4.52. B. Planning Issues: Recreation – Public and Private Facilities

Dry Lagoon

6. A small number of hike-in campsites and small “boat-in” campgrounds should be developed on the Stone Lagoon peninsula to serve the Coastal Trail. Such development should be consistent with the Resource Protection policies of Chapter 3.

4.71. 9. North Coast Access Inventory and Development Recommendations - Dry Lagoon State Park and Harry A. Merlo Recreation Area:

These two state park units provide numerous day and overnight camping opportunities. In addition to lateral access along Dry Lagoon, and along the Stone Lagoon and Big Lagoon spits, the Department of Parks and Recreation has proposed a number of park improvements to augment and enhance coastal access.

Recommendation: The County encourages the development of new coastal accessways within the State Park and Recreation Area consistent with resource protection and access policies (3.40, 3.52 and 3.53) of this plan. If feasible, these trails should connect with the Coastal Trail. (Amended by Res. No. 83-51, 3-8-83)

4.71. 15. North Coast Access Inventory and Development Recommendations - Coastal Trail: A coastal hiking and equestrian trail has been proposed in the California Recreational Trails Plan. This trail is proposed to extend from Canada to Mexico. Because of the large public ownership in this Planning Area, it is recommended that the responsible federal and state agencies implement the following (Resolution 83-51, 3-8-83):

- (1) Within Redwood National Park the trail should be designated, improved and signed as shown in the Park Management Plan.
- (2) At Orick either the levee or Hufford Road should be used to provide beach access. If the levee is improved, fencing to protect the agricultural lands will be required.
- (3) Within Stone Lagoon State Park and the Harry A. Merlo Recreation Area, the Coastal Trail should follow the beaches of Stone, Dry and Big Lagoons as much as possible. Alternate winter routes, located upland, should also be developed along the east side of Stone Lagoon and Big Lagoon. If feasible, pedestrian access should be provided along the Big Lagoon causeway.
- (4) At the Stone Lagoon Hill, the State Department of Parks and Recreation should construct trail improvements along the old CCC camp trail.
- (5) Humboldt County, in cooperation with Redwood National Park, State Department of Parks and Recreation, the Coastal Conservancy and private property owners, should explore the possibility of a trail from Dry Lagoon State Park to the Tall Trees Grove on Redwood Creek (see recommendations for Commercial Recreation PUD at Stone Lagoon under Lagoons sub-area).

- (6) Department of Parks and Recreation should improve the trail along the Old Highway from Dry Lagoon to Big Lagoon.
- (7) The accessways presently used for commercial beach uses shall be maintained.

Trail Standards

No specifications are given for trail standards.

Trinidad Area Plan

Trail-Related Development and Resource Policies

The following policies relate directly to trails within the plan boundaries; where applicable, the policies are divided into rural and urban categories.

Urban

There are no trail-specific urban policies in the Trinidad LCP.

Rural

3.25 B. Development Policies

8. Trinidad Head

If the federal government determines that Trinidad Head is surplus property, the City of Trinidad or other appropriate public agency, should assume management of the property as open space. Foot paths and bike trails, if appropriate, should also be provided.

State Department of Parks and Recreation

Development in Trinidad State Beach should be limited to the following:

- (3) Provision of a walk-in campground with only necessary support facilities which would serve users of the Coastal Trail and provide a more primitive camping experience than is available at Patrick's Point State Park.

3.40 B. 5. Design Assistance Committee

New development proposed within Coastal Scenic and/or Coastal View Areas which cannot satisfy the prescriptive standards listed in Section 3.40 B. 3 and 4, respectively, shall be referred to the Design Assistance Committee. The Design Assistance Committee, as defined in the implementation phase of the Local Coastal Program, shall ensure that the proposed development is compatible with the goals and objectives of this plan. Findings for approval shall include: (Amended by Res. No. 82-100, 7/27/82)

- j. Views from public trails, beaches, or public recreation areas into the development site shall also be considered

3.50. Coastal Access – Planned Uses

B. Development Policies

1. Accessway Improvements and Funding

a. Public agencies or other entities having or accepting responsibility for accessways shall provide support facilities compatible with the character of the land and adequate for the number of people using them prior to opening the access to public use.

(1) Minimal improvements should be scheduled for unimproved access points in character with the rural nature of the communities they serve, and accessways accepted by the responsible entity or agency should include, but shall not be limited to, the following as they are found consistent with the identified uses, modes of access and limitations as identified in Section 3.50 B. 5.

(c) trails, stairs and ramps

(g) signing of access points, trails, and hazard areas

(2) In reviewing improvements to accessways, the approving authority shall consider:

(d) The need to provide for the public health and safety, including the need for:

(vi) topography of trail

3.50 B 5. Trinidad Area Access Inventory and Development Recommendation Access

18. Scotty Point - An existing trail has been used to gain access from Patrick's Point Drive to the rocky beaches north and south of Scotty Point for beachcombing and sport fishing.

Recommendation: Accessways along the existing trail and the rocky beaches north and south of the point shall be provided in new development, consistent with Sections 3.50 B3 and 4. Appropriate public uses include lookout, pedestrian, educational, and scientific use. Desirable improvements include signing, a designated parking area, and trail improvements.

19. Martin Creek - An existing trail has been used to gain access from Stagecoach Road to the sandy and rocky beaches to the south and north, including beaches at Hobsen Creek, for beachcombing and sport fishing.

Recommendation: Accessways along the trail and the rocky beaches to the south and north, including beaches at Hobsen Creek, shall be provided in new development, consistent with Sections 3.50 B 3 and 4. Appropriate public uses include pedestrian, education, and scientific use. Desirable improvements include trail markers and improvements, and, consistent with Section 3.50 B1a (2)(c), any necessary protection of private water supplies from Martin Creek. Marine resources shall be protected from overuse by, among other means, maintaining the parking area at its present size.

20. Trinidad State Beach - This park provides access to up to two miles of shoreline. The park is open for day use only. Parking is provided at College Cove on the north end by 44 unpaved spaces. Adjacent to the City of Trinidad within the park boundaries are 34 paved parking spaces.

Recommendation: The Department of Parks and Recreation in cooperation with local equestrian groups and the local community should investigate opportunities for an equestrian trail and, if appropriate, should be developed. *This has been developed. College Cove needs signage along Old Stagecoach rd.*

21. Trinidad City Trail System - Trails proposed by the Trinidad General Plan provide access through the city and at numerous places along the beach. The trails system ties into the county's trail system at Trinidad State

Beach in the north and Scenic Drive in the south. *The City of Trinidad has established an extensive trail system to the beach (Memorial Lighthouse, wharf, beach) and on the Trinidad Head.*

23. North Luffenholtz - An existing trail leads from a parking area within the right-of-way of Scenic Drive to beaches north of Luffenholtz Creek. *Currently exists – discussed below.*

Recommendation: Accessways along the trail and beaches shall be protected in any new developments consistent with Sections 3.50B 3 and 4. Appropriate public uses of these accessways include lookout, pedestrian, education, and scientific use. Desirable improvements include trail markers and improvements, and designated parking.

24. Luffenholtz Creek County Park - The County park provides flush toilets and a fifteen to twenty car parking facility for visitors using the sandy beach and rocks both north and south of Tapona Point. *This currently exists.* This pedestrian access is also used by commercial beach users for perch fishing. At this time, access is hampered by the elimination of the bottom section of stairs by wave erosion. *This beach access has been closed and pedestrian traffic is routed to the access about 100 yards north of the park.*

Recommendation: Due to multiple site-specific conditions, the existing trail below the parking lot is not recommended for continued county maintenance; as presently signed this trail is identified as dangerous and use is at one's own risk. *(Has been closed)* An alternative trail is also currently signed *(no signage as of 9/2002)* approximately one-hundred yards north of the existing main trail near the yellow gate *(gate no longer exists)* across the single lane stretch of Scenic Drive. Parking at this access point, within a small turnaround can accommodate three to six cars. *(Parking for one or two cars; no turnaround)* The alternate trail is not as steep and appears to be more stable than the main trail. However, pedestrians traveling north must cross Luffenholtz Creek almost immediately at the trail's end. Generally, driftwood and boulders allow fairly easy access across the creek. *Still the current conditions.*

25. Houda Point and Cove - This area is owned by the Humboldt North Coast Land Trust (HNCLT) and is managed for open space, resource protection, and public access. Bird rookeries located on off-shore rocks, as well as unique near-shore shelf topography and sea caves give this area unique opportunities to view less common habitats.

Recommendation: Consistent with HNCLT's management and development plans, provision of parking and of beach and bluff-top public access trails should be provided. Due to its high susceptibility to erosion and biological sensitivity this access should be monitored carefully. If undesirable impacts from public use arise, management should be altered to limit public access.

28. 6th Avenue Trail - Portions of this trail route have already been dedicated as a condition of a Coastal Development Permit. *McKinleyville Land Trust has accepted this OTD. Development will occur when there is an opportunity for lateral access to the beach.*

Recommendation: Opportunities to provide an accessway between 6th Avenue and Scenic Drive should be investigated, and if possible, established commensurate with the policies of the County's Trail Plan and Section 3.50 B of this Plan.

Coastal Trail Specific Policies

3.50 B 5. Trinidad Area Access Inventory and Development Recommendation Access

27. Coastal Trail - A coastal hiking, biking, and equestrian trail has been proposed in the California Recreational Trails Plan and the adopted Humboldt County Trails Plan. In the Trinidad Planning Area, this trail has been proposed to run up from the beach at Patrick's Point State Park, down Patrick's Point Drive and Stagecoach Road to connect with the trail system within the City of Trinidad. South of Trinidad, the trail would continue down Scenic Drive to Moonstone Beach where it would again run along the shoreline.

Recommendation: Development of the Coastal Trail should follow the recommendation in the City Trails Plan. *This is still current.*

Trail Standards

No specifications are given for trail standards.

McKinleyville Area Plan

Trail-Related Development and Resource Policies

The following policies relate directly to trails within the plan boundaries; where applicable, the policies are divided into rural and urban categories.

Urban

3.24 D. Parkland Dedication

1. Within areas planned for residential development, new subdivisions containing fifty-one (51) or more parcels shall, at the option of the county, provide one of the following:
 - a. An offer of dedication of land planned for residential use to a public or private non-profit agency for public park or recreation use such as neighborhood parks or the trails and support facilities identified in the County Trails Plan (in addition to those required by Sections 4.52 and 4.54 of this plan)
2. The County shall initiate an amendment to the County Recreation Element which would address the Community of McKinleyville's recreation needs (based on present facilities and future density and population projections), including appropriate:
 - Types (community centers, vista points, ball fields, etc.);
 - locations (upland/coastal, with emphasis to those which would afford access to trails identified in the County Trails Plan);
 - development and design, and maintenance.

Rural

3.41 F. Riparian Vegetation and Definition Of Riparian Corridor

3. New development within stream channels shall be permitted when there is no less environmentally damaging feasible alternative, where the best feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to:
 - b. Road crossings, consistent with the provisions of Section 3.41F 5 e and trail crossings consistent with the provisions of 3.41 F 5 h.

5. New development within riparian corridors shall be permitted when there is no less environmentally damaging feasible alternative, where the best mitigation measures feasible have been provided to minimize adverse environmental effects, and shall be limited to the following uses:

- h. Public access trails provided that the length of the trail within the riparian corridor shall be minimized, where feasible, by rights-of-way which cross streams at right angles, which are kept as far up slope from the stream as possible, which involve a minimum of slope disturbance and vegetative clearing, and are the minimum width necessary.

3.42 C. Coastal Scenic Areas

2. New development proposed with Coastal Scenic Areas which cannot satisfy the prescriptive standards listed in Sections 3.42C and D, respectively, shall be referred to the Design Assistance Committee. The Design Assistance Committee, as defined in the implementation phase of the Local Coastal Program, shall ensure that the proposed development is compatible with the goals and objectives of this plan. Findings for approval shall include:

- j. Views from public trails, beaches, or public recreation areas into the development site shall also be considered

3.52 Accessway Improvements and Funding

A. Public agencies or other entities having or accepting responsibility for accessways shall provide support facilities compatible with the character of the land and adequate for the number of people using them prior to opening the access to public use.

1. Minimal improvements should be scheduled for unimproved access points in character with the rural nature of the communities they serve, and accessways accepted by the responsible entity or agency should include, but shall not be limited to, the following as they are found consistent with the identified uses, modes of access and limitations as identified in Section 4540 (Access: McKinleyville Access Inventory and Development Recommendations).

- c. trails, stairs and ramps
- g. signing of access points, trails and hazard areas

2. In reviewing improvements to accessways, the approving authority shall consider:

- d. The need to provide for public health and safety, including the need for:
 - (6) topography of trail

4.52 Public Recreation

C. Clam Beach Ponds

2. Public access should be continued; opportunities to improve the parking area and trail should also be pursued.

4.54 Access: McKinleyville Access Inventory and Development Recommendations

28. Deeded Accessway off Letz Road and Near Dolack Road: A full interchange off US 101 provides access to Letz Road and the County Airport to the east. To the west, Letz Road runs south and parallels the highway. Off of Letz Road and below Dolack Road, which has been abandoned by the county, is a deeded accessway running west to the bluff and down to the beach between two five acre parcels. At the bluff edge there is an unimproved footpath which drops plus or minus fifty feet to the sand dunes and beach below. Parking is limited to along Letz Road.

Recommendation: This unimproved accessway should be developed to provide neighborhood access to the beach to supplement access at Widow White Creek. This accessway will be especially important when erosion closes other nearby accessways. Improvements should include demarcation of the trail and maintenance of the bluff foot path to ensure continued pedestrian access.

28. A. Widow White Creek: At the southern end of Letz Avenue is a footpath that follows the north bank of Widow White Creek. At low flows, the creek can be crossed to a path up the bluff, through coastal forest and an open field. The path then connects with an existing section of the Hammond Coastal Trail. The high steep bluff which is a problem with the access to the north is not a major problem here. Note: Easement along this accessway was granted to the County of Humboldt by the Slagle-Mathews family and the Hartman family in exchange for the former noted access location in the previous Coastal Plan along Myers Road approximately 600 ft. to the north of Widow White Creek.

Recommendation: In coordination with adjacent commercial recreational development, this accessway should be dedicated consistent with Chapter 3 policies, and include the following: improvement of the trail to accommodate pedestrian and equestrian travel, and provision of limited parking near the trailhead. This accessway should be improved to direct and control public use of the riparian corridor. Improvements should be consistent with California Department of Fish and Game recommendations to minimize environmental impacts. Improvements should include demarcation of the trail, erosion control measures, and signage. Access should be restricted to pedestrian use, and signs should indicate that dogs must be kept on a leash.

Interpretive signs and/or other educational materials provided concerning riparian habitat would be a beneficial addition to this section of trail. An alternate route should be developed for equestrians, bicyclists and handicapped trail users. This route has been planned to parallel US 101 south from Letz Avenue to Murray Road, then west to connect to the existing Hammond Trail.

Coastal Trail Specific Policies

4.54 ACCESS: McKinleyville Access Inventory And Development Recommendations

Coastal Trail: A coastal hiking, biking, and equestrian trail has been proposed in the California Recreational Trails Plan and the adopted Humboldt County Trails Plan. In the McKinleyville Planning Area, this is proposed has been built to run along the Little River and Clam Beaches and then up the coastal bluff to Vista Point and along the terrace paralleling US 101 to Letz Road and is proposed to be extended to Murray Road, then west to follow the old Hammond Railroad right-of-way to the Mad River. A riparian interpretive spur trail would slope downward from this route at the south end of Letz Avenue and follow Widow White Creek to the old railroad grade.

Trail Standards

No specifications are given for trail standards.

Humboldt Bay Area Plan

The Humboldt Bay Planning Area extends from the Mad River to Table Bluff/Hookton Road, excluding the cities of Eureka and Arcata. The coastal zone runs inland to include flood prone bottomlands south of the Mad River, important drainages at Freshwater Creek and Elk River, and Hookton Slough which drains into South Bay.

Trail-Related Development and Resource Policies

The following policies relate directly to trails within the plan boundaries; where applicable, the policies are divided into rural and urban categories.

Urban

There are no trail-specific urban policies in this LCP.

Rural

3.24 D. Parkland Dedication

1. Within areas planned for residential development, new subdivisions containing fifty-one (51) or more parcels shall, at the option of the county, provide one of the following:
 - a. An offer of dedication of land planned for residential use to a public or private non-profit agency for public park or recreation use such as neighborhood parks or the trails and support facilities identified in the County Trails Plan (in addition to those required by Sections 4.52 and 4.54 of this plan)
2. The County shall initiate an amendment to the County Recreation Element which would address the Community of McKinleyville's recreation needs (based on present facilities and future density and population projections), including appropriate:
 - types (community centers, vista points, ball fields, etc.);
 - locations (upland/coastal, with emphasis to those which would afford access to trails identified in the County Trails Plan);
 - development and design, and maintenance.

3.5 Access

A. Planned Uses

Formal coastal access exists at a number of locations within the planning area, such as Mad River Beach County Park, Table Bluff, Samoa Boat Ramp, Fields Landing Boat Ramp, and several other locations. Public access provides for recreational opportunities around the Bay area that add to the local economy, and enhance the quality of life for local residents.

The following access inventory proposes increased public pedestrian access near Manila, an accessway for handicapped persons behind Redwoods United Workshop, ORV access to the beach across from the Fairhaven and Samoa industrial areas, increased access at the end of the North Spit, a trail from the Samoa Boat Ramp to Fairhaven, access to the Bracut Marsh Restoration Project, access to King Salmon Beach, access to the proposed Wildlife Refuge, access to the end of the South Spit, and several other proposals.

3.50 Access

B. Development Policies

1. Accessway Improvements and Funding

a. Public agencies or other entities having or accepting responsibility for accessways shall provide support facilities compatible with the character of the land and adequate for the number of people using them prior to opening the access to public use.

(1) Minimal improvements should be scheduled for unimproved access points in character with the rural nature of the communities they serve, and accessways accepted by the responsible entity or agency should include, but shall not be limited to, the following as they are found consistent with the identified uses, modes of access and limitations as identified in Section 3.50C.

(c) rails, stairs, and ramps

(g) signing of access points, trails and hazard areas

(2) In reviewing improvements to accessways, the approving authority shall consider

(d) the need to provide for public health and safety including the need for:

(vi) topography of trails

3.50. Access

B. Development Policies

6. Unavoidable Loss of Public Access

New industrial development which impedes or interferes with public access to or along the bayshore between Park Street in Fairhaven and the County's Samoa boat ramp, as described in Section 3.50C 24 and 26, shall provide off-site improvements to open other equivalent bayshore areas where no public access exists, such as the Elk River Spit, or enhance comparable, existing bay access. Such improvements shall include, as necessary, dedication of access easements, fee title along the new accessway, access improvements, including parking areas and trails, and provisions for maintenance and operation of the new accessway.

Coastal Trail Specific Policies

3.50. Access

B. Development Policies

5. Coastal Trail

The coastal trail would follow the trail outlined in the Humboldt County Trails Plan, from the former railroad bridge over the Mad River, along Mad River Road to Seidel Road, and then to the City of Arcata, where there is an existing hostel. The trail would exit Arcata and follow Old Arcata Road, which is planned for improvements that would include a shoulder for bike traffic. South of Eureka, there is no available hiking trail due to heavy

highway traffic and conflicts with agricultural uses, and it is recommended that trail users take a bus to Fernbridge in order to continue their journey.

C. Access Inventory

3A. Manila Park Street – In the past, this access trail provided vehicle and pedestrian access to the beach and dunes area north of Manila. Currently the trail is gated and locked by the resident landowner, which is being examined by Coastal Commission enforcement at the request of the County; however, it is still used for pedestrian and equestrian access. Parking opportunities are limited. An offer to dedicate a vertical access easement has been recorded for this location; however, as the dedicated easement goes directly through a significant riparian/wetland habitat this route is not recommended to be developed. (Amended by Res. No. 94-47, 6/7/94)

Recommendation: This accessway should be developed by an agency willing to accept responsibility for liability, maintenance and operation, and to provide the following improvements:

(Amended by Res. No. 94-47, 6/7/94)

- a. Improve the accessway to better facilitate pedestrian and equestrian use and continue to bar vehicle use.

(Amended by Res. No. 94-47, 6/7/94)

4. Lupin Road – This potential accessway would start at the end of Lupin Road, then go around the northern and eastern boundaries of the existing Community Services District leach field, and thereby to the ocean. The property on which this accessway is located is in private ownership.

Recommendation: This potential accessway should be developed by an agency willing to accept liability, maintenance and operation and to provide the following improvements:

- a. A trail, for pedestrian and equestrian use only, to the beach from the road

7. Manila Beach And Dunes And Community Center – A trail currently extends from behind the workshop, through the dunes, and thereby to the beach. Extensive public access improvements have been undertaken at this site by the Manila Community Services District through the implementation of a Coastal Conservancy funded access project. Handicapped access will be provided where feasible. (Amended by Res. No. 94-47, 6/7/94)

9. Peninsula Drive – A trail extends northwest from Peninsula Drive into the dunes area over private property. Although this access had originally been deleted from the Humboldt Bay Area Plan, there has been renewed interest in seeing it redesignated a beach access. (Amended by Res. No. 94-47, 6/7/94). There has been a condition of approval of the coastal development permit for this property at 1471 Peninsula Drive which required the landowner to record an offer to dedicate (OTD) for the future trail (CDP # A.1.Hum.05-041).

Recommendation: Develop a pedestrian/equestrian trail with additional signing and interpretive improvements. (Amended by Res. No. 94-47, 6/7/94)

18. Samoa Beach – Previously misreferenced as leased ORV access (See #17). Site 18 is a trail opposite Humboldt Bay Municipal Water District water tank.

20. Realignment Of New Navy Base Road – Realignment of New Navy Base Road, consistent with Sections 3.14 and 3.22, shall provide vertical public access to the oceanfront beaches. Such access shall include necessary parking facilities, trail delineation, and off-road vehicle barriers and other measures, as necessary, to discourage off-road vehicle use of adjacent vegetated dunes. To the extent feasible and consistent with dune restoration study area management objectives, two to three vertical accessways shall be provided along the realigned roadway.

21A. City Wallflower Mitigation Bank – This pedestrian trail provides access through the eighty acre Mitigation Bank referred to in plan Section 3.30B(13) to the beach and dunes area from New Navy Base Road. (Amended by Res. No. 94-47, 6/7/94)

Recommendation: Improve the pedestrian trail with additional signing and interpretive improvements. (Amended by Res. No. 94-47, 6/7/94)

24. Samoa Boat Launch – This area is maintained by the county, and provides boating access to the Bay. Camping and fishing are also enjoyed at this location. A significant problem exists at this site in the form of erosion along the shoreline. (Amended by Res. No. 94-47, 6/7/94)

Recommendation: This public accessway could be tied into a trail extending to Park Street in Fairhaven. Two of the three intervening parcels are already in public ownership, and an offer of dedication for a lateral access easement can be obtained as part of development by an agency willing to accept responsibility for liability, maintenance, and operation and to provide the following improvements:

- a. a trail for pedestrian use only; and
- b. some means of protection to prevent erosion of the trail. It is expected that provision of such a trail would be a result of an overall shoreline protection program along this area.
- c. additional fencing and signing to reduce cross traffic impacts associated with ORV campers crossing over the BLM day use area. (Amended by Res. No. 94-47, 6/7/94) Where provision of such access is unfeasible, or where new coastal dependent development or shoreline structures would unavoidably impede or interfere with public access along the bayshore, alternative access or mitigation for the loss of access shall be provided in conformance with plan Section 3.50B(6).

26. Fairhaven/Park Street – This road once served as a public boat launch; now it serves as a cul-de-sac from which one can view the Bay.

Recommendation: This site has been proposed as a terminus for a trail extending to the Samoa boat ramp (see #24). The only necessary improvements are the provision of several designated parking areas.

Also, access along Duprey Street to the immediate south used to be available and is the subject of another Coastal Commission enforcement case for an alleged illegal gate.

32. Dean Avenue And Victor Boulevard – This accessway provides access from Victor Boulevard near its intersection with Dean Avenue to bayshore areas south of the park. Strong evidence of public use of the site, including paths, frequently parked cars, and informal recreational facilities such as swings,

exist on the site. Other road ends, such as Melvin Street north of the park, are fenced and overgrown, with little evidence of public use.

Recommendation: Consistent with section 3.50B2, existing rights of public access shall be protected, and an access easement along the trail and the bayshore shall be offered for dedication in any new development consistent with sections 3.50B3 and 4. Appropriate public use should be limited to pedestrians.

33. North Beach Street – This heavily vegetated area located north of Beach Street exhibits evidence of public use including a number of footpaths. Much of this area, marginal to the Bay, is marshy and has been designated as wetlands on the HBAP Resource Protection Maps.

Recommendation: Consistent with section 3.50B2, existing rights of public access shall be protected, and an access easement along the trail and the bayshore shall be offered for dedication in any new development consistent with sections 3.50B 3 and 4. Appropriate public use should be limited to pedestrians.

34. Manila Community Park – The half mile long trail is located in the Manila Community Park and provides Bay view access.

Recommendation: This accessway should be maintained, and the possibility of providing interpretive or educational signs should be investigated. Access improvements in Manila should identify the Community Park as the highest priority. In addition to the maintenance and improvement of existing facilities, opportunities to construct a boardwalk along the shoreline and out into the bay to provide access to natural channels for small boat launching and to clam beds should be investigated through such funding sources as the Coastal conservancy.

49. Old Arcata Road – This ten mile route extends from Arcata to Myrtle Avenue and the Eureka City limits.

Recommendation: The Humboldt County Trails Plan recommends shoulder improvements for this route in order to improve its utility as a horse/bike/hiking route.

106. Hookton Slough Dike – This land is in private ownership and is currently used for agriculture. It is a proposed part of the Humboldt Bay Wildlife Refuge, and only as such, would be appropriate for the provision of public access.

Recommendation: During preparation of a management plan for the refuge, consultation with the North Coast Waterfowl Association, Audubon Society, Humboldt Bay Harbor District, and other interested parties should result in development of a management plan that would provide for public access to the refuge for hiking, hunting, clamming, fishing and other passive recreational pursuits. A hiking trail along the Hookton Slough dike, in accord with the provision of public parking and interpretive facilities, as well as hunting access throughout the refuge, should be provided.

Trail Standards

No specifications are given for trail standards.

Eel River Area Plan

Trail-Related Development and Resource Policies

The following policies relate directly to trails within the plan boundaries; where applicable, the policies are divided into rural and urban categories.

Urban

No trail-related urban policies (Section 3.20) appear in the LCP Eel River Area Plan.

Rural

3.52 Access –Accessway Improvements and Funding

A. Public agencies or other entities having or accepting responsibility for accessways shall provide support facilities compatible with the character of the land and adequate for the number of people using them prior to opening the access to public use.

1. Minimal improvements should be scheduled for unimproved access points in character with the rural nature of the communities they serve, and accessways accepted by the responsible entity or agency should include, but shall not be limited to, the following as they are found consistent with the identified uses, modes of access and limitations as identified in the Access Inventory.

- c. trails, stairs and ramps
- g. signing of access points, trails and hazard areas

2. In reviewing improvements to accessways, the approving authority shall consider:

- d. The need to provide for public health and safety, including the need for:
 - (6) topography of trail

4.80 Access

46. Pedrazzini County Park (Cock Robin Island Bridge) - A county-maintained boat ramp is located on the north end of the bridge leading to Cock Robin Island one-half mile south of Cannibal Island Road. Space for parking ten to fifteen cars is currently available for recreationists who wish to launch a boat into the lower river system. The existing ramp needs some level of improvement. Additionally, the peak usage of this area dictates additional parking be provided for vehicles and boat trailers.

Recommendation: For the purposes of expanding or improving Pedrazzini Park, any acquisition by lease or sale shall be deemed for "incidental public service purposes." Restroom facilities should be provided in the summer and fall; the entrance to the park should be signed and the boundaries posted.

62. Camp Weott Road. The westerly end of Camp Weott Road ends on the south bank of the Eel River about one mile from its mouth. This site is also listed as a river access point by the Humboldt County Department of Parks and Recreation. A dirt boat ramp of sorts is located at the road terminus. Access here provides pedestrian access along the shoreline and boat access to the lower river from one-half tide up. Currently, only three to five cars maximum can be parked at the site and space for ten to fifteen additional cars would have to be provided.

Recommendation: Specific designation and control of parking for vehicles and boat trailers should be provided. Any acquisition, from willing sellers, to accomplish this through lease or sale shall be deemed for incidental public service purposes.

65. Centerville to Guthrie Creek. In the 1860s, the wagon road between Bearding's Store at Centerville and Singley's Creek was declared a public highway by the State Legislation (Chapter CCLV, Section 5, Dated April 29, 1861). There is no record of this road right-of-way ever being abandoned and it has potential for pedestrian use.

Recommendation: New development should maintain historical public use along the beach. Should a public agency acquire access from Singley Creek to the Mattole River, an alternate routing of the coastal trail could include this access.

Coastal Trail Specific Policies

4.80 Access

Coastal Trail - The Coastal Trail shall be designated along Eel River Drive to State Route 211 at Fernbridge. The trail shall then follow Route 256 southwest to the City of Ferndale. It shall leave Ferndale along Wildcat Road and connect with the trail route recommended in the South Coast Area Plan.

Trail Standards

No specifications are given for trail standards.

South Coast Area Plan

Trail-Related Development and Resource Policies

The following policies relate directly to trails within the plan boundaries; where applicable, the policies are divided into rural and urban categories.

Urban

No trail-related urban policies (Section 3.20) appear in the LCP South Coast Area Plan.

Rural

3.52 Access –Accessway Improvements and Funding

A. Public agencies or other entities having or accepting responsibility for accessways shall provide support facilities compatible with the character of the land and adequate for the number of people using them prior to opening the access to public use.

1. Minimal improvements should be scheduled for unimproved access points in character with the rural nature of the communities they serve, and accessways accepted by the responsible entity or agency should include, but shall not be limited to, the following as they are found consistent with the identified uses, modes of access and limitations as identified in the Access Inventory.

- c. trails, stairs and ramps
- g. signing of access points, trails and hazard areas

2. In reviewing improvements to accessways, the approving authority shall consider:
 - d. The need to provide for public health and safety, including the need for:
 - (6) topography of trail

4.30 Access - South Coast Access Inventory and Development Recommendations

66. Cape Mendocino - The public land at Cape Mendocino should be improved under the management of BLM to provide vista point and historical interest site improvements, including, but not limited to: access road and parking improvements and fencing. There is a historical marker for the lighthouse, pullout (gravel) for about three cars and a trail to the beach. Maybe the parking area could be improved and an informational kiosk (“You are Here”) would be helpful.

69. Mattole River and Beach - Lighthouse Road runs from the bridge over the Mattole River down to the river's mouth and is generally fairly close to the high water line along the south side of the river. The Mattole River offers good steelhead fishing and many anglers fish the river. There are currently several sites where vehicles can be driven out onto the gravel bars, but most access is by foot after parking alongside Lighthouse Road. The one and one-half mile of river in the coastal zone has a flat area alongside the river and access could be developed all along the south shoreline of the river. Parking could be handled by widening the road or developing several five-car sites just off the road. Currently, there is space for ten to fifteen cars where the road ends near the ocean beach. This parking lot is the northern end of the twenty-four mile beach trail to Shelter Cove. There may be some hazards to habitat and/or archaeological sites as a result of vehicular use. BLM owns and manages this access. Basically the same. There appears to be one accessway directly to the Mattole River from Lighthouse Road and a couple of pullouts along the way for parking and pedestrian access to the river. BLM has improved the parking at the mouth and provided bathroom facilities and water. Parking at the mouth could accommodate around twenty cars. Directly north the BLM has established a camping area (similar to a parking lot). There are approximately twenty-five sites; however, they are not well marked or divided. Vehicular access to the beach has been blocked off by large logs. Pedestrian and equestrian access is easily available. There is an informational kiosk at the intersection of the campground and the parking area.

Recommendation: Although this accessway is an existing route to the ocean, areas designated as Sensitive Habitats or Natural Resources (the wetland areas at the mouth of the Mattole and the dune habitats on the beach south of the Mattole) need additional protection from inappropriate vehicular use and enforcement of these policies. Where feasible, barriers to vehicular access to these areas should be erected. As the trail head for the southern portion of the Coastal Trail in Humboldt County, areas for parking should be designated. Barriers have been erected; there was little evidence of vehicular access to the beach (the dunes were pretty thrashed from pedestrians, though). The wetlands looked intact and not disturbed.

Parking has been provided, and the area has been well signed. Recommend additional enforcement to prevent a “squatter’s village” from developing. Check BLM Management Plan for new accesses in the King Range Conservation Area. Also, there is access at Fauntleroy Rock (may just be a pullout on the county road).

70. Punta Gorda to Shelter Cove - Although lateral vehicular access is available to the Punta Gorda Lighthouse from the Mattole River, this has been temporarily closed by the Bureau of Land Management. The remainder is limited to lateral pedestrian access as part of the beach trail to Shelter Cove.

Recommendation: This is an accessway with historic vehicular use. Limited vehicular use is proposed only to Punta Gorda (see 3.36D 5). The balance of this lateral access is limited to pedestrian use as part of the Coastal Trail (see the end of this section).

73. Telegraph Creek - Located at the north end of Beach Road, this accessway provides vehicular and pedestrian access to the south end of the Punta Gorda to Shelter Cove portion of the Coastal Trail (#70).

Although the present parking area is in private ownership, BLM and private publications have listed this as a public parking area and it has substantial public use.

Recommendation: This accessway is proposed for acquisition and development to include designated parking areas, fire rings and signing adequate to inform the public of fire hazards, beach hazards from "sleeper waves" and directions for continuation of the Coastal Trail through the Shelter Cove Subdivision.

76. Lower Pacific Drive - Located just north of Neptune Road, this gently sloped bluff has an underdeveloped trail beginning at Lower Pacific Drive. Parking is available but limited to the street. Access is presently through "greenbelt" areas designated for public access.

Recommendation: Since the northern portion of this accessway is designated in the same acquisition proposal as #75 the recommendations are the same. Area to be considered for bluff top trail are AP 111-121-25 through 31 and 111-171-29 through 34. The storm drain easement opposite Steelhead Court will be considered for vertical access (Amended by Res. No. 85-81, 8/20/85).

77. Coral Point and Surf Point Roads - Both of these cul-de-sacs provide access to unmarked trails leading to the bluff's edge and providing easy access to the lower rocky terraces. Parking is presently limited to the street.

Recommendation: No improvements are recommended for the existing easements.

80. Chemise Creek - An old pack trail leads from Nadelos Campground on the road to the ocean at the mouth of Chemise Creek. The trail starts at 1900 feet elevation, climbs to 2500 feet in crossing Chamisai Mountain, then drops to the sea in the next two miles. The cove would provide a primitive and isolated site to those willing to make the effort to get there.

Recommendation: This access trail should be included in the inventory. Trail improvements should be minimized consistent with the need to provide for public safety and the primitive nature of this area.

Coastal Trail Specific Policies

4.23 Proposed Land Uses

The Land Use proposals for this area are based entirely on the existing uses and the application of the policies in Chapter 3 to provide protection for agricultural lands from inappropriate development (primarily rural subdivision), the continued management of public lands and the continuing development of the urban area at Shelter Cove.

B. King Range National Conservation Area

The proposals, primarily contained in the Chapter 3 policies, provide additional guidance for the continued management of the area by the Bureau of Land Management (BLM). The shoreline area is designated as the Coastal Trail and BLM has been delegated the responsibility to coordinate with other agencies to provide for the management, consistent with these plan policies, of other Federal lands within this planning area (Cape

Mendocino Lighthouse). BLM stream rehabilitation projects are permitted in the Chapter 3 policies, and specific guidance for the continuing acquisition program is also included.

4.30 Access: South Coast Access Inventory and Development Recommendations

Coastal Trail

The South Coast Planning Area has the distinction of not only providing the most extensive segment of coastal trail in the county, but also combines the opportunity to have it run along the shoreline for the entire length of the trail segment, and encompasses the famed "Lost Coast" of the King Range National Conservation Area (KRNCA). The county has the opportunity to provide a recreational opportunity that is unique in the entire state of California.

Recommendation: Coastal Trail - The Coastal Trail shall run down the Wildcat Road from Ferndale to Petrolia, then across the Mattole River to the beach just south of the river, then along the beach to Shelter Cove; the trail will continue through Shelter Cove to Ferrian Meadows, then to Nadelos and Walaki Campgrounds and Chemise Mountain Trail. Nothing in this plan shall interfere with the public's right of access to, and use of, the public trust lands below the mean high tide and in navigable river channels. The above routing of the Coastal Trail is based on findings that a route within the Coastal Zone from Centerville down to the Mattole River would (a) have an adverse effect on the agricultural operations of the area; (b) present a significant risk to public safety; (c) present a high fire risk; and, (d) present a risk to fragile coastal resource. This routing is based also on the present level of use. Notwithstanding the above, this plan identifies the following segments of a potential alternative route of the Coastal Trail:

- (a) From Guthrie Creek to Cape Mendocino, the unvegetated rocky and dry sandy beach.
- (b) From Cape Mendocino to McNutt Gulch, the unvegetated rocky and dry sandy beach, and a vertical accessway from the Mattole Road to the sea and located between Cape Mendocino and Singley Creek.
- (c) From McNutt Creek to the Mattole River, the unvegetated rocky and dry sandy beach from McNutt Gulch to the Mattole River.

This plan provides that easements for public access along the trail shall be offered in either of the following classes of development which are approved on coastal parcels which include the accessways:

- (i) Land divisions which create parcels smaller than 600 acres.
- (ii) Any development requiring a change in land use designation.

This plan provides that this potential alternative trail route shall not be designated or opened for public use until access easements have been offered for dedication or rights-of way have otherwise been obtained by a public agency as described below. Public agencies shall pursue acquisitions of rights-of-way on a willing seller basis only. Agricultural use should be continued through grazing leases on any suitable lands so acquired. In addition, the trail shall not be signed, opened for public use, or identified in the Commission's coastal access atlas until the access easements are accepted by an agency which demonstrates its ability to carry out the following management responsibilities:

1. Areas shall not be opened for public use unless:

- a. They are owned in fee, or
 - b. Access easements or lands owned on fee title can provide a continuous coastal trail route through an entire trail segment, as identified above.
2. Dogs, fires, and firearms shall be prohibited on the trail and the use of any access easements shall be limited to the right to pass and repass within the accessway. These restrictions shall be enforced through posting of conspicuous signs, by listing in the Commission's atlas of public accessways or other brochures about the coastal trail, and by allocation of sufficient personnel to enforce these rules on public lands and accessways, particularly during periods of heavy public use, heavy livestock use, high fire hazard, heavy seas, or extremely high tides.
3. Access easements open to public use and lands owned in fee title shall, where appropriate, be fenced from adjacent private lands in agricultural use, and other improvements that may be reasonable and necessary to separate users of the trail from adjacent private agricultural lands shall be provided. The managing agency shall coordinate closely with owners of adjacent private agricultural land to ensure that these responsibilities, including maintenance of fences, are carried out.
4. The managing agency shall either provide fire suppression services on the public lands and accessways, or shall close the trail to public use during periods of high fire hazard, including allocation of sufficient personnel to enforce any closure.
5. Harbor seal habitats from the Mattole River to McNutt Gulch shall be protected from public access which would have a significant adverse effect on pupping or haulout activities. The managing agency in cooperation with the California Department of Fish and Game shall prepare and submit to the County for its review and approval, a management program, such as closure of the area during critical seasons (May to July)

4.80 Access

Coastal Trail - The Coastal Trail shall be designated along Eel River Drive to State Route 211 at Fernbridge. The trail shall then follow Route 256 southwest to the City of Ferndale. It shall leave Ferndale along Wildcat Road and connect with the trail route recommended in the South Coast Area Plan.

Trail Standards

No specifications are given for trail standards.

Arcata Pedestrian and Bicycle Master Plan (2010)

The Pedestrian and Bicycle Master Plan is a product of the city's bold vision to create an infrastructure and a support system that results in half of all trips that begin and end in Arcata are made by non-motorized modes by the year 2020. A number of action steps are presented to help the city meet its goal of achieving fifty percent of all trips by non-motorized transportation.

- It shall be city policy to require sidewalks on both sides of roadways where possible and in accordance with the municipal code
- Provide opportunities for walking for health and recreational purposes
- Promote and maintain a program for sidewalk repairs, rehabilitation, and infill, which includes removing stationary obstacles that are within the pedestrian throughway. Assist citizens with annual contracting

services, at their expense, for sidewalk improvements (repair, replace, infill) on or adjacent to their property

- Install and upgrade pedestrian facilities as part of all new roadway transportation improvements

Coastal Routes and Regional Connections

One objective, to provide bicycle connections outside of the city limits, linking important destinations like Eureka with Arcata, is germane to the implementation of the California Coastal Trail in Arcata. The action steps listed under this goal are:

- Work and coordinate with neighboring city and county agencies to provide integrated bikeways
- Integrate with trails outside of the city limits, for example: Arcata–Eureka and Arcata–McKinleyville 101 Corridor, State Route 255, Hammond Trail, Annie & Mary Rail-Trail, and Pacific Coast Bike Route

The following bikeway projects are recommended in the Pedestrian and Bicycle Master Plan

- A Class I and II bike facility treatment for Hammond Bridge (western city limit) through Arcata Bottom to Humboldt Bay Trail (17th and Foster Ave)
- Class I and II bike facility on Foster Avenue Extension between Sunset Avenue and Alliance Avenue
- A Bicycle Boulevard treatment on L Street between 11th Street and 7th Street
- A Class III Bike Route, marked with a “Share the Road” Sign on Foster Avenue between Janes Road and Alliance Road
- A Class III Bike Route, marked with a “Share the Road” sign on Samoa Blvd. between the west Arcata city limit and K Street

The Pedestrian and Bicycle Master Plan’s bikeway development policies are consistent with the Transportation Element of the Arcata General Plan: 2020. These policies include the development of typical Class I, II and III bikeways to Caltrans standards. A prohibition of parking during school hours may be considered to achieve the desired width for a Class III bikeway on school routes.

Arcata General Plan: 2020 and Local Coastal Land Use Plan (2010)

The Arcata General Plan: 2020 contains policies that support bicycle and pedestrian facilities in several General Plan elements. The Land Use Element encourages walking and bicycling by emphasizing mixed-use neighborhoods and infill developments.

Local Coastal Land Use Plan Policies

The City of Arcata has a Local Coastal Program, certified by the California Coastal Commission, which is collection of policies within the General Plan and Zoning Ordinances. Within the General Plan, Local Coastal Land Use Plan (LCLUP) policies are intended to guide land use activities and development in the coastal zone. These policies are throughout Arcata’s General Plan. In fact, all General Plan policies, unless otherwise stated, are applicable to the coastal zone. The previous Coastal Land Use Plan was adopted in 1987. The City of Arcata has recently submitted an application to the California Coastal Commission for a comprehensive update of its Local Coastal Program (housed within the General Plan and Local Coastal Land Use Plan), and the application is anticipated to be before the Commission for review early next year (2011).

Transportation Element

The Transportation Element promotes a balanced transportation system, striving to de-emphasize dependence on the automobile.

- Goal: Provide a transportation system which allows safe and efficient travel
- Goal: Create a transportation system which provides a choice of travel modes
- Goal: Manage the street and highway system to promote more efficient use of existing capacities rather than increase the number of travel lanes
- Goal: Create a transportation system which will improve the livability of residential neighborhoods, including use of methods to calm or slow traffic and reduce through-traffic on local neighborhood streets.

Policy T-5 of the Transportation Element contains the city's bicycle and pedestrian facilities objectives to:

- Improve and expand the bicycle route system as necessary to serve new development and activity centers
- Give routes that provide access to and between major destinations including public facilities, schools, parks and open space, employment, and shopping the highest priority
- Improve the overall bicycle route system and connectivity (T-5a)
- Consider developing standards for Bicycle Boulevard treatments (T-5a-4)
- Plan pedestrian pathways and multi-use trails to serve both recreational and commuter needs

Coastal Routes and Regional Connections

Policy T-5 recommends the following improvements on coastal routes and regional connections:

- Make pedestrian enhancements on Samoa Boulevard, Spear Avenue and Alliance Road. Improvements include closing sidewalk gaps, install vertical curbs, curb extensions and smaller curb radii, textured sidewalks, street trees, adequate street lighting at crossings, rumble strips at crosswalk approaches and push stop bars at crosswalks back by five feet.
- Include multi-use paths or trails in the Foster Avenue extension to Sunset Avenue. Other potential locations for multi-use paths are: North Coast Railroad right-of-way from Giuntoli Lane to Samoa Boulevard; along the west side of Samoa Boulevard/Old Arcata Road east of State Route 101; and along the perimeter of Arcata Bay towards Manila.

Open Space Element

The Open Space Element supports developing trails and other non-motorized corridors that link to open space, recreation areas, and coastal access. In general, off-street trails are less intimidating to bicyclists than on-street bikeways, so they can encourage more non-motorized commuting as well as increase recreational opportunities.

Policy OS-1d: Linkages between open space areas, especially along biological corridors, greenways, and along levees, railroad tracks, and street rights-of-way shall be encouraged.

OS-4b: Coastal access policy. The City shall maintain coastal access corridors to Arcata Bay and other public use areas and public trust lands within the coastal zone.

Coastal access routes include:

- Access from Samoa Boulevard to Arcata Bay via South "I" and "G" Streets
- Access to Mad River Beach via Mad River Road

- Access to Manila Dunes via Samoa Boulevard

Coastal Routes and Regional Connections

The Open Space Element also contains the city's coastal access policy: "The City shall maintain coastal access corridors to Arcata Bay and other public use areas and public trust lands within the coastal zone." Coastal access routes include (OS-4b):

- Access from Samoa Boulevard to Arcata Bay via South "I" and "G" St
- Access to Mad River Beach via Mad River Road
- Access to Manila Dunes via Mad River Blvd

Resource Conservation and Management Element

The Resource Conservation and Management Element provides for the following activities in the Environmental Buffer Area (EBA) and/or the Coastal Zone:

- Construction and maintenance of foot trails for public access as an allowable use and activity in EBA (RC-2c-1f) and in the Coastal Zone
- Public coastal access improvements are allowed in the Coastal Zone (RC-2c-2b)
- Outdoor recreation activities, such as bird watching, hiking, boating, horseback riding and similar activities (RC-3d-3)
- Education, scientific research, and the use of nature trails (RC-3d-4)
- Drainage ditches when compatible with wetland function (RC-3d-5)
- Pedestrians shall be restricted to designated trails and facilities in bayfront and marsh areas

Coastal Routes and Regional Connections

Access to Arcata Bay has designated public access corridors that are to be properly signed and identified as approved Bay access points (RC-4b).

- "I" Street from Samoa Boulevard, south through the Arcata Marsh and Wildlife Sanctuary to the boat launching facility on Arcata Bay
- South "G" Street south of "H" Street, to US101
- US101 from Samoa Boulevard (State Route 255), south to Bayside Cutoff
- Samoa Boulevard from US101 west to Mad River Slough

Guidelines have also been instituted for the establishment of a system of foot trails and interpretative sites along Arcata Bay shore westward to the City limit:

- All planning and development in the area that is both south of Samoa Boulevard and west of US101 and which is identified as tidelands, former tidelands, wetlands or riparian corridor on the adopted Wetlands Map shall be reviewed by the Creeks & Wetlands Committee, and coordinated with California Department of Fish and Game.
- Development in the area bounded by Butcher's Slough and Gannon Slough should occur in conjunction with management of the National Wildlife Refuge and the Arcata Marsh and Wildlife Sanctuary
- Motorized vehicles shall be restricted to paved roads and parking lots
- Pedestrians shall be restricted to designated trails and facilities

Design and Historical Preservation Element

The Design and Historical Preservation Element sets policies to maintain Arcata's unique and valued character. Bicycle and pedestrian facilities and amenities are encouraged in the downtown area.

Arcata Parks and Recreation Plan (2010)

To meet the community's demand for trails, the Parks & Recreation Master Plan recommends an interconnected, multipurpose trail system with regional linkages. The plan encourages adequate pedestrian, bicycle, and bus transportation to all recreational facilities and programs. In addition, trails and trail support facilities are recommended to address needs for other types of recreation trails, such as mountain bike, ADA accessible loops, fitness, nature, interpretative and equestrian trails. The plan also details cost estimates for maintaining current parks and trails and future recreational development. The Plan helps guide development, re-development and enhancement of the City's parks system, open space, trails and recreation facilities for the next ten years.

Coastal Routes and Regional Connections

Trails recommended for development are the:

- Arcata Rail-with-Trail Corridor
- Annie & Mary Trail
- State Route 255 connection

The Parks & Recreation Division has a policy in place to develop an opportunity fund to support other proposed trail segments in the HP3 Plan, to enhance connectivity in the City, and to increase trail-related recreation opportunities.

City of Arcata Goals 2009/2010

The city sets overarching goals each year, along with a list of priority projects. For the 2009/2010 fiscal year, the following is listed as a priority:

Develop a Recreational Trail Plan throughout City-owned properties and Humboldt Bay region which includes: supporting efforts of the Eureka/ Arcata Bay Trail; Annie & Mary Trail; and maintaining the railroad right-of-way throughout the City with North Coast Railroad Authority.

City of Eureka General Plan (1996)

The Eureka General Plan provides goals and policies that support the development of the continuous Waterfront Trail and other active transportation facilities throughout the city in Section 3: Transportation and Circulation, Section 5: Recreation and Cultural Resources, and Section 6: Natural Resources.

Policies

3C2. The City shall coordinate development of a bikeway system, particularly Class II facilities which require striping.

3C5. The city shall ensure that development of bicycle facilities in the city is coordinated with efforts by Humboldt County, and Caltrans, where appropriate.

3C6. The city shall pursue development of a system of local bikeways that extends throughout the urban sections of the city and which is interconnected with the regional bikeways system.

Local Coastal Land Use Plan

The Local Coastal Program for the City of Eureka is part of the city's General Plan and is designed to apply requirements only to land within the city limits. The Local Coastal Land Use Plan includes policies, programs and proposals to specifically meet California Coastal Act requirements. Policies that apply to the coastal zone are marked with a 'wave symbol' throughout the document.

1.A.6: The city shall continue to work with the Humboldt Bay Harbor, Recreation and Conservation District to implement the project described in the city's Eureka Waterfront Revitalization Program:

- c. construction of a public access vista point at the foot of Truesdale Street
- i. completion of a waterfront bicycle/pedestrian trail from K Street to Del Norte Street.

1.E.3 Where recreation or visitor-serving uses are integrated with coastal-dependent uses, the city shall ensure that the recreation uses are secondary to and compatible with the coastal-dependent uses.

1.G.4 Except for safety reasons in industrial operations, the city shall ensure public access along the full length of shorelines within the Core Area through development of multiple access points such as walkways, patios, docks, and piers.

1.N.8: The city shall establish a greenway system, containing bicycling, hiking, natural walks or a combination of these, to provide a link between open space area, community facilities, and Eureka's residential neighborhoods.

Coastal Routes and Regional Connections

3.A.8: The city shall develop Waterfront Drive along Humboldt Bay from Elk River Interchange to the vicinity of Eureka Slough, consistent with all other applicable General Plan and LCP policies.

3D2. The city shall develop a bike and pedestrian trail along the waterfront extending from the State Route 255 Bridge to Del Norte Street. The trail should be developed according to a theme that recognizes and integrates the unique features of Eureka's waterfront.

Additional Coastal Recreation and Access policies can be found in the General Plan under Section 5: Recreational and Cultural Resources. Policies 5.B.1 through 5.B.11 apply to coastal zone. Policies and programs which apply to the coastal zone and protect Eureka's valuable natural resources are policies 6.A.1 through 6.A.24 in Section 6: Natural Resources.

Eureka Trails Committee Waterfront Trail and Promenade Recommendations (2005)

The *Waterfront Trail and Promenade Recommendations*, prepared for the City of Eureka Trails Committee, provides recommendations about the location and specifications of a contiguous non-motorized recreation and transportation facility along the City of Eureka's Humboldt Bay waterfront. The plan provides a Waterfront Trail and Promenade vision, describes existing and proposed trail segments, reviews regional trail connections around Humboldt Bay, and considers trail design specifications and directional signage facilities.

The Waterfront Trail and Promenade is part of the California Coastal Trail, in addition to being part of a loop trail system around the City of Eureka. The vision for this segment of the California Coastal Trail will be accessible to wheelchairs, strollers, walkers, dogs on leashes, cyclists, in-line skaters and skateboarders.

Several segments of the six and a half mile Waterfront Trail are in place, although most segments are not built to the recommended standard. These segments are:

- Target Trail: 0.15 mile of asphalt trail adjacent to Target Corporation
- Inner Reach Trail: 0.4 mile of asphalt trail between the Adorni Center and the foot of T Street
- Old Town Boardwalk: quarter mile of concrete boardwalk between the foot of G and C Streets
- PALCO Marsh Trail: half mile of compacted gravel and native surface trail between Del Norte Street and the Pole Shed parking area north of the Bayshore Mall
- Elk River Wildlife Sanctuary Trail: three-quarter mile of compacted gravel and native surface trail between the foot of Hilfiker Lane and Pound Road

Recommended development priorities are for the Elk River Access Project on the South Waterfront and the Eureka Slough Trail connection underneath US 101 bridges.

Trail standards for multiple-use paths and promenades can be found in Appendix J: Trail Management of this document.

The full report can be found at:

www.naturalresourceervices.org/assets/files/Documents/EurWaterTrail/Eureka%20Trails%20Committee%20Waterfront%20Trail%20and%20Promenade.pdf

City of Ferndale

The City of Ferndale was consulted regarding CCT opportunities within its boundaries. Currently, the City of Ferndale does not have specific policies or standards regarding trails, trail users, or trail construction.

The City of Ferndale has an established trail system in Russ Park, located at the southwest boundary of the city. Hikers and bikers are encouraged to use this facility, whereas equestrians are not allowed in Russ Park due to heavy trail wear and dangerously steep trails.

The proposed CCT alignment through Ferndale accesses Centerville Road to Centerville County Parks and Beaches. Again, there are no City of Ferndale trail plans or policies that influence this alignment.

City of Trinidad General Plan

The City of Trinidad's General Plan details policies and programs regarding development within the city. Trinidad is entirely within the coastal zone, so any policies found in the plan must also comply with coastal zone requirements. Policies within the General Plan have been certified by the California Coastal Commission as a Local Coastal Program. The General Plan contains one trail-related policy, detailed below.

City of Trinidad Trails Plan, Administrative Review Draft (2001)

The Trinidad Trails Plan implements Policy 64 of the 1976 General Plan by formalizing and marking the City's trail system. There are four main trail loops in Trinidad: Trinidad Head, Trinidad Beach State Park, Harbor Area

and Indian Beach. The Trails Plan includes a historical perspective of each trail within the main trail system and a description of its condition. The Trails Plan also describes existing bicycle paths, and the placement of benches and bike racks. Note: The Trail Plan references a trails map that includes the locations of signs that mark trails and a map showing bicycle paths. These maps are not currently contained in the Trails Plan.

Policies

Policy 64 of the city's 1976 General Plan: *“A formal pedestrian trail system shall be marked out around Trinidad. The system should include the beaches, the existing Trinidad Beach State Parks trails, and ascend the bluff at Galindo Street to provide convenient pedestrian access from Edward St. to the harbor, the Old Wagon Rd from Wagner St. to the Parker Creek Trail, the private road extending from Scenic Drive along the east branch of Parker Creek to the beach, and the beach extending southeasterly from Parker Creek to the city limits. The system should be advertised in visitor information and mapped at the visitor center.”*

Coastal Routes and Regional Connections

The Trails Plan includes descriptions of the following city trails:

- Trinidad Head Trails (pedestrian trails): The trailhead begins at the foot of Trinidad Head from the south side of the beach parking area up to the private roadway that leads to the Coast Guard Housing. The trail follows the roadway to the overlook point where it turns up towards a gravel road just before the Coast Guard Station gate. Follow this trail up to the granite cross. Just west of the cross is an unimproved trail that takes you on the south side of the head and loops back down to the first bend in the paved road. Benches are available along this route. The trail, about one mile in length, has an elevation gain of about 300 feet.
- Trinidad State Beach Trails (pedestrian trails):
 - State Park Trail: The trailhead begins at the paved parking lot adjacent to the Humboldt State University Telonicher Marine Laboratory on Ewing Street. Traveling north there is a paved road for 200 feet. From there the unimproved trail proceeds along the paved road north, past the Underwood Avenue Trail, eventually leading to the State Park. Proceeding south from the Marine Lab the trail leads to Trinidad State Beach, Trinidad Head and the harbor via Edwards Street. From various secondary trail access points proceeding west one can reach the Trinidad State Beach.
 - Underwood Trail: The trailhead begins on Underwood Avenue, where parking is available on the street. There is a narrow unimproved right-of-way from Underwood Avenue between two fences that proceeds west to the State Park Trail. (See above description of the State Park Trail).
 - Harbor Trail (pedestrian trail): The trailhead begins near the Memorial Lighthouse, where parking is available along Edwards Street. Traveling west, it veers off Edwards Street at the Historical Marker and traverses down Van Wycke Street to Galindo Street. Additional parking is available off Galindo Street. The Trail extends south to the bluff's edge and then down a stairway to Launcher Beach, the harbor area, fishing pier and Trinidad Head.
- Indian Beach Trails (pedestrian trails):
 - Primary Access: Axel Lindgren Memorial Trail. This trail has been designated the primary access to Indian Beach. The trailhead begins just west of the Trinidad Memorial Lighthouse where parking is available to the east and west of the Memorial Lighthouse. It is one of the

most challenging trails in the city, following the bluff down to Indian Beach. Stairs, cable steps, handrails and benches are provided along the trail. The bottom of the trail is prone to wash outs by winter waves. Caution should be used. Secondary trail access up the bluff is available 900 feet to the southeast.

- Secondary Access: Old Wagon Road Trail. The trailhead begins at the intersection of Ocean Avenue and Wagner Street. Parking is available on Edwards Street. From Ocean Avenue the trail can be accessed through a driveway access between the first and second houses on the ocean side of Wagner Street. It proceeds easterly until it meets up with the Parker Creek Trail and the Groth Lane Trail, all of which lead to Indian Beach. Note: no parking is available on Wagner Street. Per the 1994 Settlement Agreement, this trail is for daylight use only and excludes dogs.
- Secondary Access: Parker Creek Trail. The trailhead begins at the intersection of View Avenue and Parker Creek Road, which is parallel to Main Street behind Murphy's Market. Parking is available along View Avenue. This trail begins off Parker Creek Road down a gravel roadway between fenced properties. At the end of this roadway the trail enters a vegetated area and follows along Parker Creek. It joins the Groth Lane Trail and is another way to get to Indian Beach. Note: no parking is available on Parker Creek Road.
- Secondary Access: Groth Lane Trail. The trailhead begins on the west side of Scenic Drive just north of the Lanford Road intersection. No designated parking is available adjacent to the trailhead or on Scenic Drive. The trail, which is generally unimproved, proceeds downhill where it meets up with the Parker Creek Trail after it crosses Parker Creek. This trail provides another way to get to Indian Beach.

Redwood Community Action Agency published a bike trails plan/map for Humboldt County which included several paths through town. These are not designated with separate bike lanes. Ocean Avenue has also been designated as a bicycle path. Due to busy tourist traffic, the presence of children and inclement weather, caution is urged when riding through town. Bicycle racks are provided in several places in town to provide for parking while walking in town or on the trails.

Manila Community Transportation Plan, Phase II (2005)

The *Manila Community Transportation Plan* addresses traffic safety concerns on State Route 255, which runs through the center of the community of Manila. A number of State Route 255 improvements were recommended to reduce traffic speeds, provide enhanced pedestrian crossings, and increase the accessibility of local streets. Recommended non-motorized trail improvements included a multi-use trail utilizing the NCRA rail corridor through Manila and new pedestrian paths that provide connectivity to important community facilities.

Policies

This document provides a list of mitigation measures for State Route 255 that were proposed to workshop attendees. There are lists of preferred and rejected mitigations for State Route 255, and preferred and rejected mitigations for local streets.

At the conclusion of the workshop, attendees were given a gold star to place in the item which represented the single improvement which should be accomplished before all others. Reduced speeds was one of four. Bike Lanes was four of four.

Recommended Routes

Document contains a list of recommendations for improvement including:

Rail Trail: create a rail-trail for pedestrian and bike traffic on the NCRA rail ROW between the Pacific Ave and Dean St – Peninsula Dr intersection to just north of Ward St behind the Manila market. This 0.75 mi section would have the least wetlands issues to address for short term implementation.

New pedestrian paths - create a new pedestrian path on a) the west side of State Route 255 between Pacific Ave and Lupin Ave within the ROW but separated from SR255 with fencing and b) on the east side of Peninsula Dr between community center and Pacific Ave.

A multi-use trail that uses or shares the NWP ROW was identified as one of the most desirable mitigation measures for local street improvements in manila during public workshops. A pathway within the the corridor is consistent with the goals and polices of the Hum Co Trails Plan 1979, and has been identified in several additional planning studies (2001 Humboldt Bay Trails Feasibility Study, 2003 County Pedestrian Needs Assessment, 2004 Regional Bicycle Transportation Plan).

Friends of the Dunes Humboldt Coastal Nature Center Draft Trails Plan (2010)

Friends of the Dunes manages 113 acres of coastal dune property known as the Humboldt Coastal Nature Center (HCNC) in Manila. The HCNC is dedicated for the purposes of public access and outdoor recreation, open space and habitat conservation, and the development of a coastal dune interpretive and visitor center.

The Friends of the Dunes prepared the *Humboldt Coastal Nature Center (HCNC) Trails Plan* in 2010 to assess existing access routes and determine which trails should be included in its trail system. The HCNC trail would intersect with the CCT trail and provide a coastal access point.

The HCNC plan contains public access trail policies, trail maps, and visitor guidelines. Ten policies listed in the plan address the goals of 1) providing trail access that is consistent with the FOD mission, 2) provide an enjoyable and safe experience for visitors, and 3) recognize the different ways that visitors enjoy and experience coastal environments. It also contains public access policies by user group (general use trail, dog walking trails, horseback riding trails, bicycle use, off road motorized vehicles, off trail use, ADA), and a summary of biological resources.

Visitor guidelines and trail route recommendations are described in the document. The guidelines encourage connection with trails managed for compatible use on adjacent lands. The Criteria for HCNC Trail Route Selection was included.

Hammond Coastal Trail Extension Analysis, Trinidad to Fortuna (2001)

The *Hammond Coastal Trail Extension Analysis – Trinidad to Fortuna* was prepared for the County of Humboldt to identify and prioritize potential trail routes for a Hammond Trail extension. The study analyzed two priority trail route alternatives for the “Hole in the Hammond” (a missing segment of the Hammond Trail that was

constructed in 2007) and identified conceptual trail routes for northward and southward trail extension to Trinidad and Fortuna, respectively.

Goals and objectives were used as secondary criteria for the identification, ranking, prioritization, and analysis of routes considered in the Hammond Coastal Trail Extension Analysis project. Plan goals, policies and objectives serve to maintain coastal access and route the Hammond Coastal Trail as close to the coast as feasible.

- Goal 2. To maintain the coastal influence and coastal access
- Objective: Maintain coastal character by remaining as close to the coast as is reasonable given habitat, stability and cost limitations
- Route options west of US 101 have greater coastal character

Coastal Routes and Regional Connections

Possible route alternatives were identified which would potentially provide fully accessible, multi-use trail access north of Strawberry Creek to Trinidad and south from the Arcata Bridge to Fortuna.

North toward Trinidad:

- Strawberry Creek to Little River
- Strawberry Creek to Clam Beach Drive Overpass - West of US 101
- Strawberry Creek to Little River - Little River Drive

Little River Crossing Options

- Cantilever on US 101 Bridge
- New Bridge West of US 101
- McGaughey Bridge Route
- Little River to Trinidad
- Little River to Westhaven Drive Underpass
- Scenic Drive: Westhaven Drive Underpass to Trinidad
- Westhaven Drive: Westhaven Drive Underpass to Trinidad

South to Arcata:

- Route options identified – alternatives studied further in more current studies (i.e., Hammond South Implementation Strategy Report (2005) and Next Steps (2008))

Annie & Mary Rail-Trail (east – west connection):

- Route options identified – alternatives studied in Annie & Mary Rail-Trail Feasibility Study (2003) and Next Steps report (2008)

Arcata to Eureka:

- Identified east and west Bay options

Through Eureka:

- Identified Eureka Waterfront and Gulch routes

South Bay:

- Herrick to Hookton Roads – Coastal Route
 - First segment - Herrick Road to Railroad Avenue (Fields Landing) - Through King Salmon Avenue
 - Second segment - Railroad Avenue (Fields Landing) to Hookton Road
- Herrick To Hookton Roads – Inland Route
Elk River Road and Bertas Valley Drive

Hookton Road to Fortuna:

- Tompkins Hill Road Route
- Rail Corridor Route
- Eel River Road - Rail Corridor Route

Ferndale Spur:

- From the Junction of Eel River Road and State Route 211, the trail route travels southwest on State Route 211 to the City of Ferndale

Hammond Coastal Trail South Implementation Strategy Report (2005)

The *Hammond Coastal Trail – South Implementation Strategy Report*, prepared for the State Coastal Conservancy, provides a detailed analysis of potential trail route options in southward extension of the Hammond Trail from the Hammond Mad River Bridge to the Arcata City Limits. The study analyzes route alternatives on county roads, railroad corridors, and river levees and addresses best management practices relative to existing agricultural operations and trail surfacing.

The report explored eleven alternative routes to extend the Hammond Trail through the Arcata Bottoms. Of these, three recommended alternative routes included:

- A new trail following the abandoned railroad right-of-way south of the Hammond Bridge
- Improvements to Mad River Road to accommodate required width for a multi-use pathway
- Development of a trail along the south levee of the Mad River from a county-owned parcel and US 101

Hammond Coastal Trail Extension, Next Steps (2008)

The *Hammond Trail Extension – Next Steps* report was prepared for HCAOG to identify the “next steps” in the development of the Hammond Trail project. Alternative routes were considered to extend the Hammond Trail from its southern terminus at the Hammond Mad River Bridge to downtown Arcata. The study described private property, management and environmental issues that would need to be addressed to implement alternative routes.

The Next Steps Report further evaluated the three alternative routes identified in the *Hammond Coastal Trail – South Implementation Strategy Report (2005)*; the three alternative routes included:

- A new trail following the abandoned railroad right-of-way south of the Hammond Bridge
- Improving Mad River Road to accommodate required width for a multi-use pathway
- Developing a trail along the south levee of the Mad River from a county-owned parcel and US 101

The Next Steps Report concluded improvements to Mad River Road to accommodate a multi-use pathway would be the easiest to implement.

Highway 101 Interchange Community Design Fair (2010)

On May 17 – 21, 2009, the Cher-Ae Heights Indian Community of the Trinidad Rancheria (Trinidad Rancheria) and the City of Trinidad invited tribal members, community members, and other stakeholders to come together and share their vision for the future of the Trinidad Rancheria and surrounding communities by participating in a Community Design Fair. The four-day Design Fair focused on creating a community vision for a livable and walkable community center, the incorporation of cultural values and highlighted the proposal for a new US 101 interchange to the Trinidad Rancheria. The Trinidad Rancheria properties are within the boundary of the California Coastal Zone (blue line) as designated by the North Coast Area Plan (Local Coastal Plan). Though the Rancheria is not subject to the California Coastal Act provisions, compliance with state coastal act policies is required by the federal Coastal Zone Management Act. Any work outside of the Rancheria boundaries would be subject to state regulations and a Coastal Development permit would be required. The Rancheria is within Humboldt County jurisdiction with a portion of the area designated as appealable to the California Coastal Commission.

The resultant trail-related policy was to eliminate barriers to pedestrian and bicycle travel. The policy goal is to create a transportation system that provides inter-community and intra-community non-motorized travel throughout the Rancheria.

Coastal Routes and Regional Connections

Bicycle/Pedestrian Overpass over US 101 and Rancheria. A small bridge would allow bicyclists and pedestrians to cross over US 101 and connect Rancheria's east and west sides. On the east side, there appears to be adequate right-of-way to extend a bicycle/pedestrian path from the existing ridgeline and hill peak to tie into a bridge. The bridge would then connect on the west side near Cher-Ae Lane. While the Design Team did not cost out this option, it was determined that it would be relatively inexpensive compared to other options and would be technically feasible from an engineering point of view.

Overpass from Rancheria West to Westhaven Drive without On-and Off-Ramps. This option would bridge US 101 at the ridgeline, crossing over and connecting to Westhaven Drive on what is now a private road. Bicycle and pedestrian facilities would be incorporated into this bridge. There would be no on-and off-ramps from either direction of US 101. However, alternative access and egress would be possible from Westhaven Drive as well as Scenic Drive.

Scenic Drive. The *Trinidad Rancheria Access Improvement Feasibility Study, 2002*, recommended that a portion of Scenic Drive be converted to a Class I path if the county is unable to maintain it as a vehicle road. While a bicycle path would be much narrower and subject to lighter use, it would be subject to the same deteriorating

forces that currently affect the roadway. Additionally, applying a scenic “slow road” concept to Scenic Drive would allow motorists, pedestrians, and bicyclists opportunities to enjoy the views in a slow speed and safe manner. It should be noted that the coastal section along Scenic Drive and the upper reaches of the McConnahas Mill Creek are mapped as areas of high instability.

Westhaven Drive. The shoulders of Westhaven Drive could be widened to Class II standards, beginning at Moonstone Beach Road and extending to US 101 in Trinidad. This road is very narrow in many places (less than two lanes), has poor geometry and numerous constraints, including topography, residential development and culverts. It is unlikely that the county will have the funds to improve this road for bicycle lanes; however, if in the future the opportunity arises to make improvements, such work is currently supported by numerous citizens and cyclists who want a safer road. Another consideration is that a trail could be built from Scenic Drive up to 6th Avenue to connect to Westhaven Drive via an existing trail easement on an abandoned railroad bed (*Humboldt County Bicycle Facilities Planning Project, Feasibility Analysis*, Redwood Community Action Agency, November 1997).

InterTribal Sinkyone Wilderness Council

The InterTribal Sinkyone Wilderness Council is working on a plan, including a limited public access element, for their 3,845 acre property. No draft has been released to date and correspondence with the Council during this planning process indicated they are not willing to release information from this plan at this time. The original projected plan completion date was prior to the first construction season of 2005. According to the Lannan Foundation, which contributed major support toward the creation of the Council, the plan will call for low-impact campsites and backcountry trails connecting to the Lost Coast Trail in the adjacent Sinkyone Wilderness State Park.

McKinleyville Land Trust Mad River Bluffs Background Description and Management Plan (2003)

This plan was written with funding from the Coastal Conservancy for a 73.9 acre parcel of upland beach pine and spruce forest overlooking the lower Mad River and Pacific Ocean. The Mad River Bluffs property is adjacent to Hiller Park and the McKinleyville Community Services District’s wastewater treatment facility. The property was acquired to preserve public access to the coast and the purpose of this planning effort was to find a balance between maintaining the natural integrity of the area and providing recreational and educational opportunities to the public. The main trails on the property have been in place for several years. The plan consists of a review of the natural and cultural history of the land and a management section that includes options for public recreation and use, design standards, education and collaboration opportunities. General objectives derived from the management section related to trails and coastal access include:

- Preserve open space in perpetuity
- Protect coastal views
- Protect and restore the natural heritage at the site including rare habitats
- Provide coastal access with an emphasis on increasing safety and accessibility to the coast
- Connect Mad River Bluffs trails with the Hiller Park trails and the Hammond Trail
- Emphasize a smooth transition between Mad River Bluffs and Hiller Park
- Foster cooperative management with MCSD
- Provide recreational experiences to a variety of recreational users

- Provide onsite research and environmental education opportunities
- Encourage stewardship activities by local citizens

The plan also consists of a series of recommendations organized from “immediate” to “non-pressing.” Immediate recommendations include topics as diverse as seeking to understand liability and exposure to risk, legal access acquisition to Hiller Park, parking improvements, hours open to the public, installation of dog waste facilities, law enforcement patrol, and installation of safety signs along vertical coastal access points. For existing and recommended changes to trail segments see information beginning on page 70 of the plan. Design standards for the Mad River Bluffs plan are presented in Appendix H: Design Standards Review. The complete plan is available at: www.naturalresourceservices.org/mrbb.html

Orick Community Action Plan (2003)

The Orick Community Action Plan (CAP) is an effort to bring local community planning efforts back into focus for the residents of Orick. The CAP serves as a record of the community’s accomplishments and identifies community improvement goals and the necessary steps for achieving those goals. During the course of the CAP update meetings, the following three planning themes emerged as community priorities: community planning, US 101 corridor beautification and community services.

Regional Connections

The town is considered to be the southern Gateway Community to Redwood National and State Parks. The CAP indicated that protecting Redwood Creek, wildlife and beach access was noted as important to the community. Additionally, planning is underway for the development of an RV and camping resort on the south side of Orick.

Wildlands Conservancy

The Eel River Emerald Necklace program, developed by the Wildlands Conservancy, is intended to connect recreational resources and protect environmental and biological resources along the Eel River through land acquisition and management. The Conservancy is working on developing a management plan for the Eel River with these goals in mind. The “emerald necklace” will include a system of preserves and will include a public education component.

Yurok Draft Tribal Transportation Plan (2006-2026)

The Yurok Tribal Transportation Plan is focused on strategies for design, construction, operations and maintenance of transportation facilities for moving people and goods both on and off the Yurok Indian Reservation. While the Yurok Indian Reservation is outside of the coastal zone within Humboldt County, their native territory includes public and privately held lands from Crannell north beyond the Klamath River mouth and east to include lands between the Klamath River and State Route 96. Within Del Norte County, the Yurok Indian Reservation includes a strip of land following the Klamath River stretching out to the ocean. The characteristics of this planning process that have been emphasized in the transportation plan are as follows:

- The planning process is comprehensive and considers the interconnectedness of transportation with cultural, social, economic, quality of life, and other goals

- There is identification of current transportation operations and future transportation needs
- Facilitation of transportation funding decision making
- A wide range of partners and interested parties were included in the planning process
- The plan included development of short-and long-range workable strategies for optimum transportation investment

Priority projects developed during the planning process and involving the CCT and coastal access are focused in Del Norte County with a desire to create additional pedestrian pathways at the mouth of the Klamath River and along US 101.

Trail and Recreation Related Policies

Trail related goals for this transportation plan include creating a culturally appropriate multi-route interconnected trail system throughout the Reservation and nearby lands that provides for inter-community and intra-community non-motorized trail system travel for Tribal members, and also provides conditional access for non-Tribal eco-tourists and travelers. Recreational goals for this transportation plan include continuing to create the culturally appropriate infrastructure and facilities necessary to sustain and develop recreational travel to the benefit of the Tribe's economy while being fully respectful of the Yurok Tribe and its people.

Specific trail related policies as taken from the planning document include:

A Project Study Report shall be developed for the creation of a Yurok Trail System Plan that will include (1) a statement of need, purpose, and description of project; (2) estimated costs; and (3) project timeline goals.

The Yurok Tribal Council, in an effort to fulfill the intent of its Constitution, seeks public support, inter-agency cooperation, and federal legislation to re-establish its traditional role in the management of its ancestral territory, which can partially be fulfilled through the actions of designing, restoring, and establishing an integrated network trail system linking high mountains, stream and river valleys, and coastal beaches.

- Coordinate creation and maintenance of Tribal Trail System
- Eliminate barriers to Trail System travel
- Seek compatible management of adjacent federal and state lands through co-management agreements
- Maintain Trail System facilities
- Establish programs related to the Yurok Trail System
- Encourage interconnectivity of the transportation network
- Promote safety on the Trail System

Specific recreation-related policies as taken from the planning document include:

- Support the creation of proposed recreational travel and tourism facilities
- Coordinate tourism industry efforts to meet recreational travel needs
- Support coordinated pursuit of funding sources
- Support unique environmentally-friendly and non-motorized tourism development
- Support coordinated dissemination of information to travelers
- Promote access to and use of Tribal recreation resources by Tribal members

The draft plan is currently not available online. For more information on this draft plan please contact the Yurok Tribe at 190 Klamath Blvd., Klamath, CA 95548

Yurok Tribe Tribal Park Concept Plan, Draft (2005)

The Draft Yurok Tribe Tribal Park Concept Plan relates the Yurok Tribal Council's desire to establish a Yurok tribal park system. The Yurok Tribe currently owns less than one percent of its ancestral territory and is unable to effectively provide for the economic, social or cultural needs of its people. The establishment of a tribal park will address each of the Yurok Tribe constitutional objectives, which include providing for the wellbeing of the tribe, protecting tribal sovereignty and preservation and protection of the Tribe's culture, language and religious beliefs and practices. The Yurok Tribe Tribal Park Task Force's ideas put forth in this document do not have final approval from the Yurok Tribal Council. The Draft Tribal Park Concept Plan outlines a tribal park system and discusses land acquisition and management strategies. The Yurok Tribe is proposing to enter into co-management agreements with each of the three federal agencies and one state agency that currently manage lands within the ancestral boundary of the Yurok territory.

Vision

The Draft Tribal Park Concept Plan does not include official policies. Instead the document discusses the Yurok Tribe Tribal Park Task Force's vision for the tribal park. As envisioned by the Tribal Park Task Force, a key component of the Yurok tribal park system will be an integrated trail system linking high mountains, stream and river valleys, and the coastal beaches. Both culturally and historically, the Yurok people maintained a complex network of foot trails throughout ancestral lands, the importance of which has been well-documented in ethnographic literature. The California Coastal Trail and the Pacific Crest Trail, together with the connectivity offered between them through the Yurok tribal park system, would establish a popular network of circuit trails that will rival any in the country for scenic diversity, variable lengths, and natural and cultural resource education opportunities while protecting cultural and traditional values.

Management Objectives

The Draft Tribal Park Concept Plan identifies the following management objectives specific to each potential agency co-management partner:

- NPS & California Department of Parks and Recreation:
 - Prohibition of sport climbing on sacred rocks at the mouth of the Klamath River
- U.S. Forest Service:
 - Management and public recreational use plan for the Yurok Wilderness in the Blue Creek watershed portion of the Yurok tribal park system
 - A trails plan, including restrictions on public use near Doctor Rock, and development of alternative trail routes into the high country, including connector trails to the Pacific Crest Trail and loop trails into the Smith River National Recreation Area.
- Bureau of Land Management:
 - Designation of the Yurok Tribe as the Steward for the fifty mile segment of the National Monument that lies within ancestral territory

Coastal Routes and Regional Connections

The Draft Tribal Park Concept Plan includes recommendations for improvements and/or programs at the following locations:

- Tsurai Village site in the Town of Trinidad - This twelve and a half acre ancient village is proposed to be acquired by the Yurok Tribe and managed as a park unit. A scenic trail, ecological restoration, possible village demonstration project, and an active interpretive guide program are contemplated there. The Yurok Tribe is currently involved in development, along with Trinidad City and California state offices, of a Tsurai Village Management and Restoration Plan.
- Mouth of the Klamath River - The high ground above the flood zone is one possible site for an eco-lodge and/or camping facility that would serve recreationists as a key trail stop for the California Coastal Trail, as well as other tribal/national park visitors. One unique service that is needed and that would be provided by tribally-operated or licensed boat businesses would be a ferry service to carry California Coastal Trail hikers across the mouth of the Klamath. At present, such long-distance hikers must leave the coast, hiking some miles inland to the US 101 Bridge and back out to the coast in order to cross the Klamath mouth. Yurok Klamath River Docks would also serve to support a regular river “taxi” service, both for tribal members and for visitors heading upriver to the Blue Creek tribal park facilities. Eco-tour businesses licensed by the tribe could take visitors on day-trips on the river or provide upriver transport for tribal members, tribal employees, hikers and campers; a sport fishing guide service would provide charter boat services, sales and rental gear, and food for paying guests, as well as processing and packaging for customer’s catch to be carried/mailed home.
- Rocks and Sea-stacks – A fifty mile section of the Pacific Coast of northern California falls within the ancestral territory of the Yurok people. All of the coastal rocks, islands, and sea-stacks of the California coast form the California Coastal National Monument and are managed by the Bureau of Land Management (BLM).

Trinidad Rancheria Tribal Transportation Plan (2006-2026)

This plan, generated by the Cher-Ae Heights Indian Community, meets federal requirements for a long range transportation plan for a twenty year planning horizon. From the transportation planning process, the Indian Entity chose to emphasize specific characteristics including the links of land use, cultural preservation, economics, social, environmental, and quality of life goals for the Trinidad Rancheria:

- Current transportation operations and future needs
- Facilitation of transportation investment decision making
- Transportation related partnerships in developing this plan
- Short and long term workable transportation investment strategies

There is additional focus throughout the plan on safety, self-determination, and efficiency of the local transportation network. The plan reviews existing transportation options and corridors, traffic conditions, available funding sources, and local community needs, and seeks to establish goals, policies, and objectives and propose projects in response to these findings.

Trail policies

- Trails will be a component of a balanced multi-modal transportation system servicing the Tribe
- Enhance pedestrian and bicycle accessibility to the Rancheria trails network to provide a wider variety of transportation options for rural/remote residents
- Develop bicycle and trail facilities in the region through coordination among the Yurok Tribe, Humboldt County (Humboldt County General Plan), the BIA, Caltrans, and other entities with planning responsibilities to achieve interconnectivity of the transportation network
- Reduce the need for vehicle trips by providing an extensive trail network
- Additional policies on bicycle and pedestrian travel
- Eliminate barriers to bicycle and pedestrian travel
- Promote safe bicycling and walking educational programs
- Pursue alternative funding sources and improvements to bicycle facilities
- On designated routes, include bicycle and pedestrian facilities when making roadway upgrades and improvements
- Coordinate tourism industry efforts to support recreational travel needs
- Support coordinated dissemination of information to travelers

For other policies related to cultural, environmental, or biological resources and transportation, please see Chapter 8.3.

Tsurai Management Plan (2007)

This management plan is a three year collaborative study between the California Coastal Commission, City of Trinidad, Tsurai Ancestral Society, and the Yurok Tribe to resolve areas of past and present conflict over management of the Tsurai Study Area (TSA). This includes archival and primary research on the history and current conditions of the cultural, natural and recreational resources contained in the TSA.

Recreation, in particular beach access trails, is considered an important public resource. Diverging stances have arisen over the past management decisions regarding public access, enhanced visitor experience, the need to protect cultural and natural resources in the TSA, ensure user safety, and respect the privacy of local residents and adjacent land owners.

The management plan attempts to identify ways to address resource protection problems while helping the city and the conservancy maintain compatible beach and recreation access.

Policies

Coastal Access/Resources:

Install hand rails on the Axel Lindgren Memorial Trail to provide safer use of this primary beach access trail by the public.

Development and installation of signs throughout TSA to direct user traffic and protect environmental and cultural resources contained therein.

Part 6, page 35 “Recreational Resources and Access Trails”

The conservation easement over the TSA includes a primary purpose of public coastal access in the property, and site access trails intended for village site and cemetery.

Trails – including permitting or review processes as they will relate to regional connections: Part 2 page 8 recreational resources

Cultural and Historical Resources

Trails are considered part of the Yurok culture. The traditional trail system connects the entire cultural landscape and ancestral territory.

Part 2 page 9 cultural and natural resources

Part 4 page 15 in the context of Trinidad

Part 7.2, page 39 priority concerns are management and maintenance of the public use trails within the TSA

Biological Resources

Part 3 environmental context pages 11-12

There are no agricultural or CCT specific policies within this management plan.

Recommended Routes

For the CCT:

- Parker Creek Trail: establish route from town to join CCT at the eastern junction with Old Wagon Rd Wagener St. trail
- Develop PCR northward along riparian corridor
- Secure easements on lower portion of the trail

Important regional connectors:

- Wagner St. Trail (Old Wagon Rd). The TAS would like to see it closed. The California Coastal Commission would like it to remain open as public access. Trail is in litigation

Trail Development Standards

- Tsurai Ancestral Society maintains some trails
- The Axel Lindgren Memorial Trail is a primary beach access trail and needs to be managed beyond recreation but also to include cultural significance
- Install a handrail for safety. Relocate lower trail benches. Needs CEQA compliance. Reestablish traditional entrance. Conduct annual maintenance (page 75). Develop signage/interpretive signs
- Site access trail should not be used by the public (that leads to the Tsurai village)
- Improve Parker Creek; include ADA compliance

Federal and State Policies

California Assembly Bill 1358 (AB 1358) — California Complete Streets Act of 2008

AB 1358 (Leno) requires that the:

Legislative body of a city or county, upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan. By requiring new duties of local officials, this bill would impose a state-mandated local program.

California Assembly Bill 32 (AB 32) — Global Warming Solutions Act of 2006

When the legislature passed AB 32, they made California the first state to adopt an enforceable statewide emission target (since then at least twenty other states have passed targets and goals). AB 32 requires the California Air Resources Board (CARB) to develop regulations and market mechanisms that will ultimately reduce California's greenhouse gas emissions to 1990 levels by the year 2020 and to twenty percent of 1990 levels by the year 2050. Increasing trips made by foot and by bicycle and decreasing trips made by motorized vehicles reduces greenhouse gas emissions.

California Assembly Concurrent Resolution No. 211 (ACR 211)

California's cities and counties have even more reason to pay attention to the two aforementioned policies. ACR 211 (Nation) "Integrating walking and biking into transportation infrastructure" became effective in August 2002, and encourages all cities and counties to implement the policies of DD-64 and the USDOT design guidance document when building local transportation infrastructure.

Caltrans DD-64-R1

Caltrans recently adopted a policy directive related to non-motorized travel that the communities of Humboldt County could follow by issuing a similar statement. The Caltrans Deputy Directive 64 (DD-64) reads:

"The Department fully considers the needs of non-motorized travelers (including pedestrians, bicyclists and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products. This includes incorporation of the best available standards in all the Department's practices. The Department adopts the best practice concepts in the US DOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure."

It is not clear what the effect of these policy directives will be on the planning, design, and funding of new transportation facilities. Although the USDOT policy *encourages* agencies and organizations to adopt this position, it does not state the possible repercussions if it is not embraced. Similarly, it is not certain how the Caltrans policy directive would apply to local jurisdictions or to streets that are not classified as "highways." Nonetheless, these policies reflect the growing concern that public agencies have shown to accommodate the needs of pedestrians and bicyclists in the design and operation of the transportation system.

California Coastal Act

The California Coastal Act was created in 1976 as a mechanism to govern and influence the decisions of the California Coastal Commission. The Commission oversees regulatory oversight of coastal development by reviewing proposed development projects in the coastal zone for consistency with the California Coastal Act, including ensuring public access to coastal areas. The Act outlines various activities, definitions and development standards in the Coastal Zone. Chapter 3 of the Act encompasses the main objective of the CCT, public access. In particular, Chapter 3, Article 2 sections 30210, 30211, 3012, and 30214 are most relevant.

Section 30210 Access; recreational opportunities; posting

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

(Amended by Ch. 1075, Stats. 1978.)

Section 30211 Development not to interfere with access

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30212 New development projects

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

(b) For purposes of this section, "new development" does not include:

(1) Replacement of any structure pursuant to the provisions of subdivision (g) of Section 30610.

(2) The demolition and reconstruction of a single-family residence; provided that the reconstructed residence shall not exceed either the floor area, height or bulk of the former structure by more than ten percent, and that the reconstructed residence shall be sited in the same location on the affected property as the former structure.

(3) Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than ten percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.

(4) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not seaward of the location of the former structure.

(5) Any repair or maintenance activity for which the commission has determined, pursuant to Section 30610, that a coastal development permit will be required unless the commission determines that the activity will have an adverse impact on lateral public access along the beach.

As used in this subdivision "bulk" means total interior cubic volume as measured from the exterior surface of the structure.

(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.

(Amended by: Ch. 1075, Stats. 1978; Ch. 919, Stats. 1979; Ch. 744, Stats. 1983.)

Section 30212.5 Public facilities; distribution

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

Section 30214 Implementation of public access policies; legislative intent

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

(Amended by: Ch. 919, Stats. 1979; Ch. 285, Stats. 1991.)

Other chapters of the Coastal Act that relate to the California Coastal Trail include sections of Chapter 1 and 6. Chapter 1 establishes the importance of California's coastal areas and the need to protect their ecological balance, while recognizing the importance of existing developed uses and the need for future appropriate development. Additionally, the Act mandates that public access to and along the coast be maximized. All public and federal agencies are mandated to comply with the act. The Act does not limit municipalities or local government from imposing additional regulations as long as they support the act. Furthermore the Act declares that the public has a right to fully participate in coastal planning and development of projects. Finally, Chapter 1 creates a mandate for public education and outreach programs regarding the conservation and wise use of coastal and ocean resources.

Chapter 6 of the Coastal Act requires local governments in areas lying completely or partly in the coastal zone to have a local coastal program for their jurisdiction. This program or plan must have a public access component and incorporate public input. Designation of sensitive coastal areas will occur based on a separate report, and its requirements are defined. State and local agencies will be responsible for identifying sensitive resources and development types which would negatively impact them. The California Coastal Commission will be responsible for preparing a public coastal access program, including an inventory, mapping, and identification of appropriate responsible agencies. Reporting of the program's efficacy to the legislature will occur on January 1st of each year.

More information from the California Coastal Act is available at: www.coastal.ca.gov/ccatc.html

California Coastal Management Program

California's Coastal Management Program began in 1978 and consists of three parts. Two organizations manage development along the coast. The California Coastal Commission manages all state coastal areas except San Francisco Bay which is managed by the San Francisco Bay Conservation and Development Commission. The California Coastal Conservancy is the third part of the program and exists to purchase, protect, restore, and enhance coastal resources while providing public access to the shore. The California coastal zone affected by this program can range from one-hundred feet inland from high tide in the urban areas of San Francisco Bay up to five miles from high tide in significant coastal estuarine habitat areas. More can be learned about Ocean and Coastal Management in California at: coastalmanagement.noaa.gov/mystate/ca.html

U.S. DOT Accommodating Bicycle and Pedestrian Travel

"Accommodating Bicycle and Pedestrian Travel: A Recommended Approach" is a policy statement that was adopted by the U.S. Department of Transportation (USDOT) in response to TEA-21. USDOT encourages public agencies, professional organizations, advocacy groups, and any other groups involved in transportation issues to adopt this policy to further promote bicycling and walking as viable components of the transportation system. The four directives issued in this policy statement address measures to improve bicycle and pedestrian access, convenience, and safety in transportation projects. The policy statement notes that:

“The challenge for transportation planners, highway engineers and bicycle and pedestrian user groups, therefore, is to balance their competing interest in a limited amount of right-of-way, and to develop a transportation infrastructure that provides access for all, a real choice of modes, and safety in equal measure for each mode of travel.”

Permitting Requirements

The following agencies may require permits or other approvals before constructing any trails as part of the California Coastal Trail in Humboldt County.

Federal Requirements

Coastal Zone Management Act

The Coastal Zone Management Act is implemented by state agencies in California. Federal agencies are required to work with state agencies when engaged in any activity or development project that affects land or water uses, or natural resources of the California Coastal Zone. They must be fully consistent with the California Coastal Management Plan unless an existing law, emergency, or unforeseen circumstance prohibits compliance. They must notify the commission of their proposed action at least ninety days before a Record of Decision or Finding of No Significant Impact. The state has sixty days to respond if a federal agency contends that there is no effect on coastal use or resources. There are several procedures available if a disagreement regarding a consistency determination or negative determination exists. These include Presidential exemption, mediation by the Secretary of Commerce, or judicial review.

Any individual, organization, or other entity existing under the laws of any nation or state, other than a federal agency, may apply for a federal license or permit for coastal zone activity. The California Coastal Management Plan maintains a list of federal license and permit activities that reasonably can be expected to affect the coastal zone. If an applicant is engaged in unlisted activities that may affect the coastal zone, they may voluntarily subject themselves to the consistency certification process to avoid delays if their activity is later called under review. The federal licensee has similar requirements of notification and consistency as federal agencies. If there are disagreements regarding a consistency certification, an applicant may appeal, attempt resolution through mediation, or ultimately seek judicial review.

Similar procedures are also laid out for federal assistance to state or local governments and Outer Continental Shelf activities such as exploration, development, and production of oil or gas from any area that has been leased under the Outer Continental Shelf (OCS) Lands Act. Notification, Consistency Certification, Commission Review, Conflict Resolution and Continuing Review procedures will all take place for any OCS or federal assistance activity. A more detailed summary of the federal consistency process can be found at:

www.coastal.ca.gov/fedcd/guidecd.pdf

Bureau of Land Management (BLM)

Proposing a new trail alignment on BLM land would need to meet the National Environmental Policy Act (NEPA) requirements. Documents used to meet NEPA requirements vary in relation to the impacts of a

proposed project and include Environmental Analysis (EA) documents and Environmental Impact Statements (EIS) documents.

EA documents are used when it is unclear that an action would have a significant effect. EIS documentation is required when a proposed action will have a significant environmental impact. If it is determined that an action will have no significant effect a “Finding of No Significant Impact” (FONSI) is made and no EIS is required. If it is determined that there is no potential for significant environmental impacts, the action can be “Categorically Excluded” (CX), if it fits within a list of statutory, departmental, or BLM’s list of categorical exclusions. If an existing NEPA analysis document covers the proposed action, then a finding of “Determination of NEPA Adequacy” (DNA) can be submitted. Agency coordination is required for all NEPA processes and documentation. Public involvement is required for some EAs and for all EISs. Tiered EA processing time is approximately one to three months for preparation and agency coordination, with a longer time frame for more complex projects. Permitting time for an EA is approximately six to eight months for preparation and agency coordination (may be longer for more complex projects). Permitting time for an EIS is approximately twelve to eighteen months for preparation and agency coordination (may be longer for more complex projects).

To determine eligibility, the requesting or “implementing” agency would need to contact the local BLM district office with the proposed plan/action.

The local BLM office is located at 1695 Heindon Road, Arcata, California, 95521-4573, (707) 825-2300.

National Oceanic and Atmospheric Administration (NOAA) Fisheries Service

NOAA Fisheries Service, a division of the U. S. Department of Commerce, is the federal agency charged with the stewardship of living marine resources and their habitat within the U.S. and ocean waters within the U. S. Exclusive Economic Zone. NOAA Fisheries Service administers the Endangered Species Act for most endangered or threatened marine plant and animal species.

The Northwest Regional Office has jurisdiction of above stated waters in Northern California, including Humboldt County. An overview of the permit types issued by NOAA Fisheries Service, with links to more detailed information, can be found at: www.nwr.noaa.gov/Permits/Index.cfm. Online authorizations and permit forms for protected species are available at: apps.nmfs.noaa.gov/index.cfm.

The Northwest Regional Office is located at 7600 Sand Point Way NE, Seattle, WA 98115-0070. They can be reached at (206) 526-6150.

National Park Service, Redwood National Park

California State Parks and the National Parks Service cooperatively manage Redwood National Park. These agencies review plans and proposals of neighbors that may potentially impact the resources of RNP including Timber Harvest Plans. For environmental review during planning and other management efforts, RNP managers consult with NOAA Fisheries Service, USFWS, and the Department of Fish and Game. RNP approaches future park management at a programmatic level, as demonstrated by the *Redwood National Park Trail and Backcountry Management Plan*.

U.S. Army Corps of Engineers

The U. S. Army Corps of Engineers is responsible for issuing Section 404 permits. Section 404 of the Clean Water Act regulates the discharge of dredged, excavated, or fill material in wetlands, streams, rivers, and other U.S. waters. There are three basic types of permits: Standard Permits, General Permits and Letters of Permission. Standard Permits are required for projects with potentially significant impacts to aquatic resources. General Permits cover projects that will have minimal impacts on aquatic resources, and Letters of Permission are granted on a quicker timeline. Most states have a General Permit pending for most general 404 permits, which enables the 404 permit to be handled during the state permitting process. Permit forms can be completed online, printed and mailed via the United States Postal Service. The permit forms and online instruction sheets can be found at: www.spn.usace.army.mil/regulatory/apply.html

The U.S. Army Corps of Engineers, San Francisco District, oversees the waters in Humboldt County. Agency contact information: 1455 Market Street, San Francisco, CA 94103-1398, (415) 503-6800.

U.S. Fish and Wildlife

A trail or trail connections would need to be proposed or demonstrated. It is up to the applicable land manager to work the trail proposal through the federal system or determine whether it is appropriate for a specific location. Developing an access plan is one way to work through the process.

State Requirements

California Coastal Commission

The Coastal Act requires an Application for Coastal Development Permit (CDP) to be filed for development projects within their jurisdiction. The North Coast District office in Eureka processes CDP applications within Del Norte, Humboldt, and Mendocino Counties. Development, as defined in Coastal Act section 30106, within the coastal zone may not commence until a coastal development permit has been issued by either the Commission or a local government that has a Commission-certified local coastal program. The online checklist notes that project plans and site plans, related environmental documents, verification of all other permits and approvals of relevant public agencies must be submitted as part of the application packet. Reference Appendix O: Tips for Trail Development in the Coastal Zone for more information on working with the Coastal Commission. Agencies mentioned in the application packet include the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, Department of Fish and Game, and State Lands Commission. Additional requirements can include:

- Grading, drainage and erosion plans
- If grading is proposed, the amount of cut and fill and the amount of import and export of materials is required
- Geology and soils reports
- Other information as needed on a case-by-case basis

The online checklist and permit application can be found at: www.coastal.ca.gov/cdp/cdp-forms.html

California Department of Fish and Game (DFG), Northern Regional Department

The Department of Fish and Game (DFG) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. This includes waterways with intermittent flow and ephemeral streams, desert washes and watercourses. To meet this responsibility, the Fish and Game Code (Section 1602) requires an entity to notify DFG of any proposed activity that may substantially modify a river, stream, or lake. Covered activities include: substantially diverting or obstructing the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream or lake; deposition of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream or lake. Work undertaken within a flood plain may also require a notification to DFG. If the DFG determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared.

Before beginning an activity in Humboldt County that would require DFG notification, a notification form with the corresponding fee must be submitted to the applicable regional office. For Humboldt County, the Northern Regional Department of Fish and Game main office is located at 601 Locust Street, Redding CA 96001, (530) 225-2300. A local field office is located at 619 Second Street, Eureka, CA 95501, (707) 445-6493. The review process is largely driven through the DFG land manager responsible over the proposed trail location.

The notification form, instruction sheets and fee schedule can be found online at:

www.dfg.ca.gov/habcon/1600/forms.html

California Environmental Quality Act (CEQA) and The State Clearinghouse and Planning Unit (SCH)

The California Environmental Quality Act requires state and local agencies to identify the significant environmental impacts of a project and to avoid or mitigate those impacts where feasible. Most projects that will physically develop the land are subject to the provisions of CEQA. The basic CEQA requirements consist of a procedural and substantive review. At a minimum, an initial review of the project and the project's environmental effects will be performed. Depending on the effects, a more substantial review may be needed and may result in an environmental impact report (EIR). The State Clearinghouse and Planning Unit (SCH) of the Governor's Office of Planning and Research coordinates the state-level review of CEQA environmental documents.

The CEQA guidelines are available online at: ceres.ca.gov/ceqa/guidelines/. CEQA notification forms and filing instructions can be found at: www.opr.ca.gov/index.php?a=sch/environmental.html#forms

California State Lands Commission (CSLC)

The California State Lands Commission has wide-ranging mandates for the protection of California's natural environment. The CSLC has jurisdiction and management control over certain state public lands, which includes the land under navigable and tidal waterways. CSLC has a multiple-use management policy to assure the land provides the greatest possible public benefit. If there are plans to construct improvements on land held by the CSLC, an inquiry should be made by telephone at (916) 574-1940. A staff person assigned to the geographic location of the project site can help determine if the project is within the CSLC's jurisdiction. If a written inquiry

is required, staff will then determine the extent of the state's property interest in the project site and determine if a formal application must be submitted.

For more information, please visit: www.slc.ca.gov

California State Parks

The California State Parks Department Trails Policy requires that a formal trails planning process be completed prior to implementing changes in existing trail uses, in their designs or realignments, or for new trail construction and existing trail elimination.

Where timely development of an overall unit trail system plan is not possible, existing trails will be evaluated singly as staff time and funding are available for management determination of their potential for enhanced-use status. Any such planning process regarding use changes for single or multiple trails within a park unit will require public participation.

California State Parks has an internal environmental and archaeological review process. Any proposal must be reviewed by other state regulating agencies. California State Parks often has permitting and compliance problems and prefer to partner with other agencies on projects. A coastal permit would be required for all coastal management units.

For more information, please visit: www.parks.ca.gov

Caltrans

Caltrans requires an encroachment permit application for any right-of-way ingress on state highways. Any trails constructed in Caltrans' right-of-way must meet Caltrans' specifications.

Caltrans administers California's portion of the Transportation Enhancement (TE) Programs Community Based Transportation Planning Grants.

For more information, please visit: www.dot.ca.gov/hq/traffops/developserv/permits/

Regional Requirements

Humboldt Bay Municipal Water District

The Humboldt Bay Municipal Water District requires a review of any proposed trail within their jurisdiction. As part of the review, the staff will provide input on trail design standards and location, primarily where trails might be proposed in access easements surrounding transmission lines and vaults.

Humboldt County Coastal Development Permit

The Humboldt County Community Development Services Department was mandated to establish policies in accordance with the Coastal Act of 1976. As such, the County produced a Local Coastal Program, which was certified as legally adequate by the Coastal Commission for most areas of the County coastal zone in the 1980s. Before development can commence in a certified area, a coastal development permit must be obtained. The

purpose of the Coastal Development Permit is to ensure proposed projects are consistent with the certified LCP for the protection of coastal resources and public access.

The Planner-On-Duty (707-445-7541) can help determine if a permit is needed. If a permit is required, the application and plot plan checklist can be obtained at the Community Development Services office or online at: co.humboldt.ca.us/planning/forms/forms.asp

North Coast Railroad Authority (NCRA)

The North Coast Railroad Authority (NCRA) was created in 1989 by the California legislative body through the North Coast Railroad Authority Act. Trails within the NCRA right-of-way must be approved by the NCRA Board of Directors and trail applications are reviewed on a case-by-case basis. The NCRA Board has developed a Policy & Procedures Manual for *Trail Projects on the NWP Line Rights-of-Way: Design, Construction, Safety, Operations, and Maintenance Guidelines*, which was adopted in May of 2009. The draft trail guidelines are available at: www.northcoastrailroad.org/newindex.html

North Coast Regional Water Quality Control Board (NCRWQCB)

Anyone proposing to conduct a project that requires a federal permit or involves dredge or fill activities that may result in a discharge to U.S. surface waters and/or "Waters of the State" are required to obtain a Clean Water Act (CWA) Section 401 Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects) from the North Coast Regional Water Quality Control Board, verifying that the project activities will comply with state water quality standards. The most common federal permit for dredge and fill activities is a CWA Section 404 permit issued by the Army Corps of Engineers.

Section 401 of the CWA grants each state the right to ensure that the state's interests are protected on any federally permitted activity occurring in or adjacent to Waters of the State. In California, the Regional Water Quality Control Boards are mandated to ensure protection of the state's waters. When a proposed project requires a U.S. Army Corps of Engineers CWA Section 404 permit, falls under other federal jurisdiction, and has the potential to impact Waters of the State, the Regional Water Quality Control Board will regulate the project and associated activities through a Water Quality Certification determination (Section 401).

However, if a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the Regional Board has the option to regulate the project under its state authority in the form of Waste Discharge Requirements or Waiver of Waste Discharge Requirements. In addition, California Department of Fish and Game (DFG) may regulate the project through the Streambed Alteration Agreement process. DFG issues Streambed Alteration Agreements when project activities have the potential to impact intermittent and perennial streams, rivers, or lakes.

Before the Regional Water Quality Control Board or DFG can issue a permit, the project applicant must provide proof of compliance with -California Environmental Quality Act (CEQA). If CEQA is required (i.e. the project is not found to be exempt based on the current CEQA Guidelines), a local or state agency must act as the lead CEQA agency. Under CEQA the Regional Board exercises its authorities to require minimization and mitigation of impacts to "Waters of the State." At a minimum, any beneficial uses lost must be replaced by a mitigation project of at least equal function, value and overall area.

If the project is located within or adjacent to "Waters of the State," and the proposed project may impact those waters, a Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects) permit is required. The rules and regulations apply to all "Waters of the State," including isolated wetlands and stream channels that may be dry during much of the year, have been modified in the past, look like a depression or drainage ditch, have no riparian corridor, or are on private land. If there are questions, it is a good idea to call the regulatory agencies in the area for clarification. The process for a Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects) is summarized below:

1. Complete and send application, additional necessary documents, and fees to the North Coast Regional Water Quality Control Board.
2. Within thirty days of receiving the application, staff will determine whether the application packet is complete, or whether additional items will be needed to complete the review process. A letter will be sent to the applicant requesting additional items if the application is found to be incomplete.
3. Once the application is deemed complete, reviewing staff will issue a Public Notice which will be posted on the North Coast Regional Water Quality Control Board website. The public notice period extends for twenty-one days. Public comments will be accepted during the notice period, and will be considered during the certification determination process.
4. Regional Board staff has one year to make a Water Quality Certification determination once the application is deemed complete. Generally, the process takes between one to four months. Determinations may include Standard Certifications, Technically Conditioned Certifications, Denial without Prejudice (i.e. due to lack of CEQA or proof of mitigation credit purchase), or Denial of Certification.
5. Determination is reached regarding issuance of CWA Section 401 Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects). Notification will be made in writing by the office regarding the determination for the proposed project.

The state permit process for non-federal jurisdiction projects follows the process outlined in steps one and two above. However, the process for steps three and four differ as shown below, with step five being eliminated.

3. Regional Board staff have 120 days to make a determination once the application is deemed complete. Determinations may include Waiver of Waste Discharge Requirements or Waste Discharge Requirements, dependent upon the project scope.
4. Final determination is reached regarding issuance of the appropriate permit. Notification will be made in writing by the office regarding the determination for the proposed project.

The North Coast Regional Water Quality Control Board is located at 5550 Skylane Blvd., Suite A Santa Rosa, CA 95403. The phone number is (707) 576-2220. A link to the application packet and the fee schedule calculator can be found at:

www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification.shtml

North Coast Unified Air Quality Management District (AQMD)

Construction activities that may cause air contaminants require an Authority to Construct Permit from AQMD. The general requirements causing a permit requirement are found in Rule 102, and are as follows:

1.1 No person shall cause or permit the construction or modification of any new source of air contaminants, including an indirect source, without first obtaining an Authority to Construct Permit from the Air Pollution Control Officer (APCO), which specifies the location and design of such new source and incorporates necessary permit conditions so as to ensure compliance with applicable Rules and Regulations and State and Federal Ambient Air Quality Standards.

1.2 The APCO shall not approve such construction for any source of air contaminants subject to Section 1.1 or 2.0 or modification unless the applicant demonstrates to the satisfaction of the APCO that the new source can reasonably be expected to comply with all applicable State and Federal laws and AQMD Rules and Regulations.

North Coast Unified Air Quality Management District office is located at 2300 Myrtle Avenue, Eureka, CA 95501. Phone: 707-443-3093 Email: support@ncuaqmd.org

Permits forms are available at: www.ncuaqmd.org/index.php?page=permit.forms

Agency website: www.ncuaqmd.org/files/rules/reg%201/New%20Rule%20102.pdf

Local Requirements

City of Arcata

Trails planned and constructed within the City of Arcata's boundaries are subject to a CEQA review. Arcata's review process is site-specific and must conform to adopted plans. Arcata also has a certified LCP with which any trails implemented in the coastal zone of Arcata must be in compliance.

City of Eureka

Trails planned and implemented in Eureka must be in compliance with the certified local coastal plan. The local coastal plan includes applicable zoning ordinances and general plan elements. The city representative interviewed indicated that if trails are planned in certain land-use designations (e.g. coastal dependent industrial), it may be difficult to get approval.

City of Trinidad

Trail plans must be submitted to the Community Development Department with site plans, construction methods, architectural elements and supporting environmental information. Trinidad has the first certified LCP in the state and any trails implemented in the coastal zone of Trinidad must be in compliance with the LCP.

North Coast Regional Land Trust

The North Coast Regional Land Trust holds a number of land parcels and easements. Any trail alignments proposed on their holdings require approval by the Board and that the proposing entity work closely with applicable public agencies on design and implementation.

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Appendix G: Planning Considerations

The implementation process of the CCT can and will present both opportunities and challenges. This Implementation Strategy is intended to identify opportunities which should be capitalized on while seeking ways to mitigate challenges or obstacles. This section will examine opportunities and challenges surrounding stakeholder interests, the natural and physical environment, and destinations.

Stakeholder Interests

This section examines compatibility issues associated with stakeholder interests and trail users. In this section, stakeholder interests were highlighted in order to reveal significant opportunities and challenges associated with CCT trail development. Stakeholders include project partners (see Appendix A: Project Partners), agricultural land managers, residents, transportation agencies, tribes, and the general public.

Constructing a trail can present challenges if the alignment is adjacent to incompatible land uses. The compatibility between trails and stakeholders is context-dependent and largely depends on the stakeholder's level of acceptance of a trail and not necessarily land use type. Existing and proposed segments of the CCT are located in or adjacent to virtually every land use type in Humboldt County. Further development of each segment of the CCT will be cognizant of stakeholders and land uses through which the segment traverses. Humboldt County Zoning Code defines coastal access and public recreation, e.g. the CCT, as principally or conditionally permitted uses in most land use designations. The CCT will traverse public lands but also runs through agricultural, residential, and transportation land uses.

General issues associated with trails, stakeholders, and land uses are discussed below. Table G-1: Stakeholder Key Issues summarizes stakeholder key issues. Specific land use areas are mapped in Figure G-1: Land Uses Humboldt County.

Agricultural Land Manager Interests

Trail implementation can occur in a manner compatible with agricultural land uses; however, land managers may have concerns about perceived effects of trails on their property. Existing and proposed segments of the CCT are located in or adjacent to agricultural land uses. Agricultural lands can be attractive locations for trail alignments due to their natural and open landscape, but some agricultural land managers have concerns about the compatibility of trails and agriculture. Concerns include security of crops and livestock, trespassing, littering, livestock harassment by dogs, vandalism, and interference with day-to-day operations. Pesticide and herbicide spraying and moving farm equipment can potentially endanger trail users and also raise liability issues among landowners. Development of the CCT in Humboldt County will strive to minimize and, if needed, mitigate any impacts to agricultural lands which embody a significant economic and cultural element of Humboldt County. Planning the CCT adjacent to agricultural lands will need to be consistent with agricultural resource policies set forth in the Coastal Act and Local Coastal Programs that ensure protection and continued productivity of

agricultural lands. Setbacks, fencing, signage, and monitoring could each contribute to protection of agricultural resources and a safe CCT environment through agricultural lands of Humboldt County.

Residential Interests

The CCT will access and traverse many residential land uses. In most jurisdictions, residential land uses are defined as rural, single-family units, or multi-family units. This plan generalizes these residential land uses because residential property owners and managers share similar concerns. Concerns about trail development through residential areas include increased vandalism, litter, trespassing, and noise and decreased security of property. Public agencies interviewed as part of this planning process reported that residents generally support trails that are not directly near their property. Residential support may wane during the initiation of a nearby trail development project, but then greatly increase once the trail is built and being utilized, as in the case of sections of the Hammond Trail.

Residential property owners and managers may support trails if trail design addresses their concerns. Typically, well designed trails in residential areas do not have the issues that concern residents because they are well lit, set back from property boundaries, and provide clear sight lines and trash receptacles. These trails may also have barriers that prevent trespassing, are not easily vandalized, and do not compromise the security of trail users by blocking sight lines. An effective trail maintenance and management program is also key to ensuring overall trail success and general neighbor satisfaction.

The CCT runs through, or is adjacent to, residential land uses in the urbanized areas, i.e. Eureka, Arcata, Trinidad, and Ferndale. CCT segments through residential areas of Eureka and Ferndale are likely to occur on roadways and sidewalks, which tend to separate pedestrian and bicycle traffic, minimizing resident concerns mentioned earlier. Arcata's unused railroad rights-of-way present opportunity for Class I multipurpose paths that meander through the city's residential areas. Many Arcata residents may welcome trails near their property because increased community presence along previously unused corridors often deters unfavorable usage. Residential land use designations including urban residential and rural residential can be seen in Figure G-1: Land Uses Humboldt County.



Pedestrians and cyclists use the roads in the Arcata Bottoms to exercise and access the Hammond Bridge.

Transportation Agency Interests

Transportation corridors suitable for the CCT route are found throughout Humboldt County. Various agencies oversee the transportation network in Humboldt County and provide input on transportation corridor opportunities and challenges. The CCT through Humboldt County will traverse various transportation corridors, such as roadway and railroad rights-of-way (ROWs). These existing corridors have the potential to serve as trail alignments but may also be unsafe for CCT users to utilize or cross. Challenges associated with using existing transportation corridors as the CCT route include exposure to traffic, constrained ROW widths, narrow passage at bridges, and willingness of corridor owners.

In many areas of Humboldt County, private land ownership and physical constraints along the coastline limit the CCT to follow shared-use roadways. These existing public rights-of-way, mostly in county jurisdiction, provide a clear alignment for CCT users; however, inadequate accommodations for non-motorized users along many of these roadways may limit the safety and scenic experience for CCT users. The project team has engaged with the county to identify potential improvements to these roadways for non-motorized users. Future preferred alignments separated from motorized traffic have been identified as possible alternatives to the CCT's alignment on shared-use roadways if the planning climate around those alignments becomes more feasible in the future.

Roadway ROWs are not typically preferred trail alignments due to high traffic volumes, as a corridor separated from motorized traffic is a state goal for siting the CCT. However, roadway ROWs may be suitable 'interim' alignment locations if designed to create a designated space for non-motorized users, particularly bicyclists, by providing additional paved shoulder and/or physical barriers. This planning process has identified bicycle alternative routes along Caltrans ROW, many of which overlap with the Pacific Coast Bike Route. US 101 along the east shore of Humboldt Bay is one such example where Caltrans has improved bicycle access, and this corridor is heavily used by bicyclists commuting between Eureka and Arcata. Caltrans has accommodated them by designating this stretch of highway as a safety corridor, reducing the speed limit, installing speed feed-back signs and allowing use of the widened shoulder by bicyclists. This planning process has identified gaps in the primary CCT route where highway ROW is currently the only option for CCT alignment, but safety concerns prohibit recommendation of the primary CCT route within the highway ROW.



The Mad River Bridge is an example of a railroad bridge converted for bicycle and pedestrian use.

Similarly, compatibility with rail corridors depends on the ROW width available and the willingness of rail operators to permit a trail within the ROW. The trail planning agency should obtain a written statement from the rail operator regarding their level of interest in accommodating a trail, whether through the creation of a rail-with-trail or via railbanking, which is a method by which rail lines proposed for abandonment may be preserved for future rail use through interim conversion to trail use (see Appendix I: Trail Design Standards for more detail). Future discussions regarding potential use of the rail corridor for trail development will need to be undertaken with the North Coast Railroad Authority (NCRA) which manages the inactive rail line within Humboldt County. The NCRA has worked cooperatively with the City of Arcata's Rail-with-Trail Connectivity Project, which is a proposed segment of the CCT. An in depth discussion regarding rail-trail options is detailed in section 2.9 and Appendix I: Trail Design Standards.

Compatibility issues are not just associated with trails along transportation corridors but across them. Trail crossings threaten trail user safety unless designed appropriately. Where possible, signalized roadway intersections, instead of mid-block crossings, should be used for trail crossings. Crossing design guidelines are provided in the Design Guidelines section (Appendix I: Trail Design Standards) of this report.

Bridges may serve as critical links or barriers in a trail network. They provide access through difficult terrain but also act as pinch points. Many bridges are built to only accommodate motor vehicles and do not provide additional width for bicycle and pedestrian facilities. Retrofitting bridges with cantilevered paths is expensive and

difficult to justify. Bridges with historic designation complicate matters by prohibiting retrofits. In this case, trail planners must resort to recommending a separated bicycle and pedestrian bridge. In these circumstances, nearby and abandoned railroad bridges present opportunities. Bridges, though often not a long stretch of trail, can be critical links in a regional trail system, without which the trail system could not be fully connected.

Several water crossings throughout Humboldt County challenge the completion of a continuous CCT and present constrained points at bridges. State Route 211 provides a crossing at Eel River; however, Fernbridge is a historic bridge structure with a lack of adequate width for safe passage for non-motorized users. Likewise the crossing of the Little River south of Trinidad also presents a constraint for CCT users as the only bridge does not provide safe travel for non-motorized users. Humboldt Bay presents an opportunity for a braided primary CCT route around both the east and west sides of the bay; however, the coastal access beach route along the north and south spits of the bay cannot be accessed congruously. The Hammond Bridge, a former railroad bridge north of Humboldt Bay, provides an exclusively non-motorized crossing of the Mad River; however, its structural integrity presents a challenge for future connectivity of the CCT and the regional trail system.

Tribal Interests

Tribal stakeholders, lands, historic sites, and cultural resources are valuable components of Humboldt County. Because known American Indian activity in Humboldt County was largely dependent upon the coastal redwood plain and watercourses, many cultural resources may be located in the same vicinity as proposed and existing CCT alignments.

Tribal officials gave insight to this planning process regarding opportunities and challenges associated with planning the CCT near culturally significant areas and tribal lands. Trail alignments have the potential to endanger sensitive cultural resources and lands if trail descriptions and maps detail adjacent cultural resources in public documents. The intention may be to identify cultural resources as an educational or historical opportunity associated with a particular alignment, but in reality, this identification can lead to cultural resource degradation and mistreatment.

This planning process and further implementation of the CCT should strive to recognize tribal interests, support tribal goals of land protection, increase awareness of local native tribal significance, create educational opportunities for users, and deter users from sacred sites by formalizing appropriately designated trails.

General Public Interests

Through a series of public workshops, interviews and surveys, public opinion on CCT trail implementation opportunities and constraints was collected. Several areas of concern emerged when discussing CCT implementation including safety, trail user interaction, and natural and cultural resource protection.

Safety

The public demonstrated concern regarding natural hazards impacting trails and trail users. Proposed trail alignments through tsunami zones and along beaches notorious for rogue waves were identified as areas that warrant extreme user caution and appropriate warning signage. Alignments following highly-trafficked or narrow

roadway conditions, and roadway crossings were also of public concern. Accurate trail signage and information on trail conditions was noted as important for user safety.

Trail User Interactions



It is anticipated that a variety of user types will access the CCT, including hikers and general pedestrians, bikers, and equestrians. The public stated that creating standard agreements of trail-use etiquette (e.g. through signage) between all trail users was important to an enjoyable and safe trail experience.



Equestrian trail users also expressed that appropriate trail design would not only facilitate proper trail use, but would also provide a safe experience (e.g. soft shoulders along paved paths and beach routes can be seasonally dangerous for horses).

Natural and Cultural Resources

Humboldt County has a bounty of natural and cultural resources. The public has an interest in protecting wetlands, threatened and endangered species habitat, agricultural lands, and tribal interests during trail implementation. Besides completing sufficient environmental and archeological reviews for permitting purposes, trail developers should work cooperatively with tribal cultural resource officers to select routes that do not impinge upon cultural resources.

Table G-1: Stakeholder Key Issues

Agricultural Land Manager Interests	
Example Photo	Key Issues
	<ul style="list-style-type: none"> • Trespassing • Littering • Endangering crops and livestock • Increase of pests/invasive species • Disrupting day-to-day operations • Exposure to pesticide and herbicide • Dogs
Residential Interests	
Example Photo	Key Issues
 <p><i>Photo credit: Great Plains Trail Network</i></p>	<ul style="list-style-type: none"> • Trespassing • Littering • Property security • Noise • Privacy of adjacent residents

Transportation Agency Interests	
Example Photo	Key Issues
	<ul style="list-style-type: none"> • Limited ROW and available land for setbacks • Narrow bridges and roads • Cooperation with rail operators • Exposure to vehicle traffic and active rail lines • Safe trail crossings of road and rail ways • Historical bridges prohibit retrofitting for pedestrian and bicyclist access • High cost for bridge retrofits and for bicycle and pedestrian bridges
Tribal Interests	
Example Photo	Key Issues
 <p><i>Photo credit: Yurok Tribe</i></p>	<ul style="list-style-type: none"> • Acknowledge tribal/cultural/historical resources • Cultural awareness and education • Resource protection • Support established tribal goals

General Public Interests

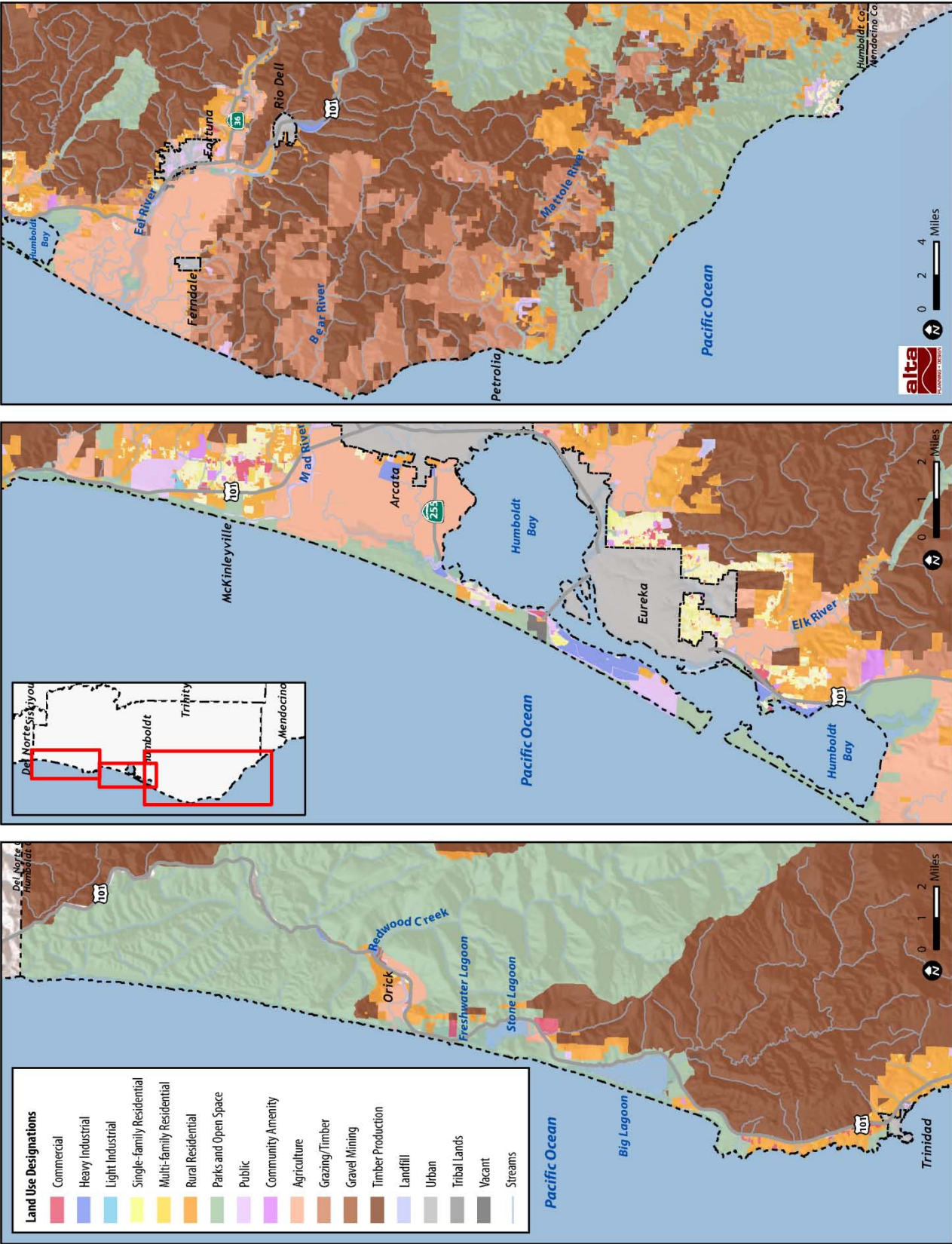
Example Photo

Key Issues



- Natural hazards
- Roadway hazards
- Appropriate signage
- Various trail user interactions
- Natural and cultural resource protection

Figure G-1: Land Uses Humboldt County



Environmental Issues

The Humboldt County CCT corridor includes many geologic, hydrologic, and biological resources that may impact trail sighting and alignment. An important data source used to map these resources is Humboldt County's Geographical Information System, which contains metadata layers such as streams, rivers, and associated floodplains, Streamside Management Areas, and National Wetland Inventory wetlands. Additional resources include the State of California Department of Conservation, California Geological Survey, U.S. Fish and Wildlife Service's Endangered Species Program, the Department of Fish and Game (DFG) California Natural Diversity Database (CNDDDB) and sea level rise data from the Pacific Research Institute.

Natural geologic hazards are plentiful along Humboldt's unstable coastline and are documented in this section. Humboldt County is considered the most seismically active region in the continental U.S., which is the result of three active tectonic plates coming together just off the coast of Petrolia. This region is known as the Coast Range and consists of a mélange of rock types forming the dynamic landscape of mountains, bluffs, cliffs, alluvial valleys, bays, and lagoons. Discussion of active faults, landslides, and slope stability are encompassed in the geographic section.

Natural resource conservation relies on an understanding and accurate mapping of the locations and extent of geographic constraints and sensitive or critical biological habitats. Areas with known constraints can then be protected through avoidance or by applying conservation practices and standards to development that may reduce significant adverse effects. For example, the application of conservation practices may result in a braided route system that avoids or minimizes potential adverse impacts to sensitive habitats.

Geographic

Slope Stability

Slope stability refers to the landslide susceptibility of slopes composed of natural rock, soils, artificial fill or combinations thereof. Landslides move along surfaces of separation by falling, sliding, and flowing, giving rise to many characteristic features. These landslide features range in appearance from being clearly discernible, largely unweathered and uneroded, to highly weathered and eroded, recognized only by topographic configurations.

Relative slope stability varies throughout the Humboldt County portion of the CCT corridor. The Eel River Basin is thought to have the highest regional rate of erosion ever measured in the United States, where on average, four to eight inches of soil washes off the slopes every hundred years, estimated to be 4,330 tons of sediment per year for the entire basin, predominately caused by unstable slopes and landslides (Alt & Hyndman, 2000). Trinidad and the Mattole are other regions of major slope instability, where access trails should be located away from safety hazards to reduce impacts of erosion and minimize slope failures.



A thorough investigation should be completed by a geotechnical engineer to better understand existing soil conditions to carefully site trail development and create appropriate designs for trail features.

Alquist-Priolo Earthquake Fault Zones

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. As required by the Act, regulatory zones (known as Earthquake Fault Zones) are identified around the surface traces of active faults. Local agencies must regulate most development projects within the zones. Before a project can be permitted, cities and counties require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally fifty feet).

The Humboldt County CCT project is not expected to include construction of habitable structures. Nonetheless, Alquist-Priolo Earthquake Fault Zones identify locations of active faults the CCT may traverse. According to the California Geological Survey, these fault zones can be found in the vicinity of Trinidad, Arcata, Fields Landing, and Shelter Cove. As illustrated in Figure G-2: Flood Zones and Seismic Stability Humboldt County, a portion of the City of Trinidad within the CCT corridor alignment is in an Alquist-Priolo zone. An existing trail segment within the CCT corridor approximately three miles north of the Humboldt/Mendocino County line is also within an Alquist-Priolo zone.

Soil Liquefaction Zones

Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading. Liquefaction occurs in saturated soils, that is, soils in which the space between individual particles is completely filled with water. When liquefaction occurs, the strength of the soil decreases, and the ability of a soil profile to support foundations for buildings and bridges is reduced.

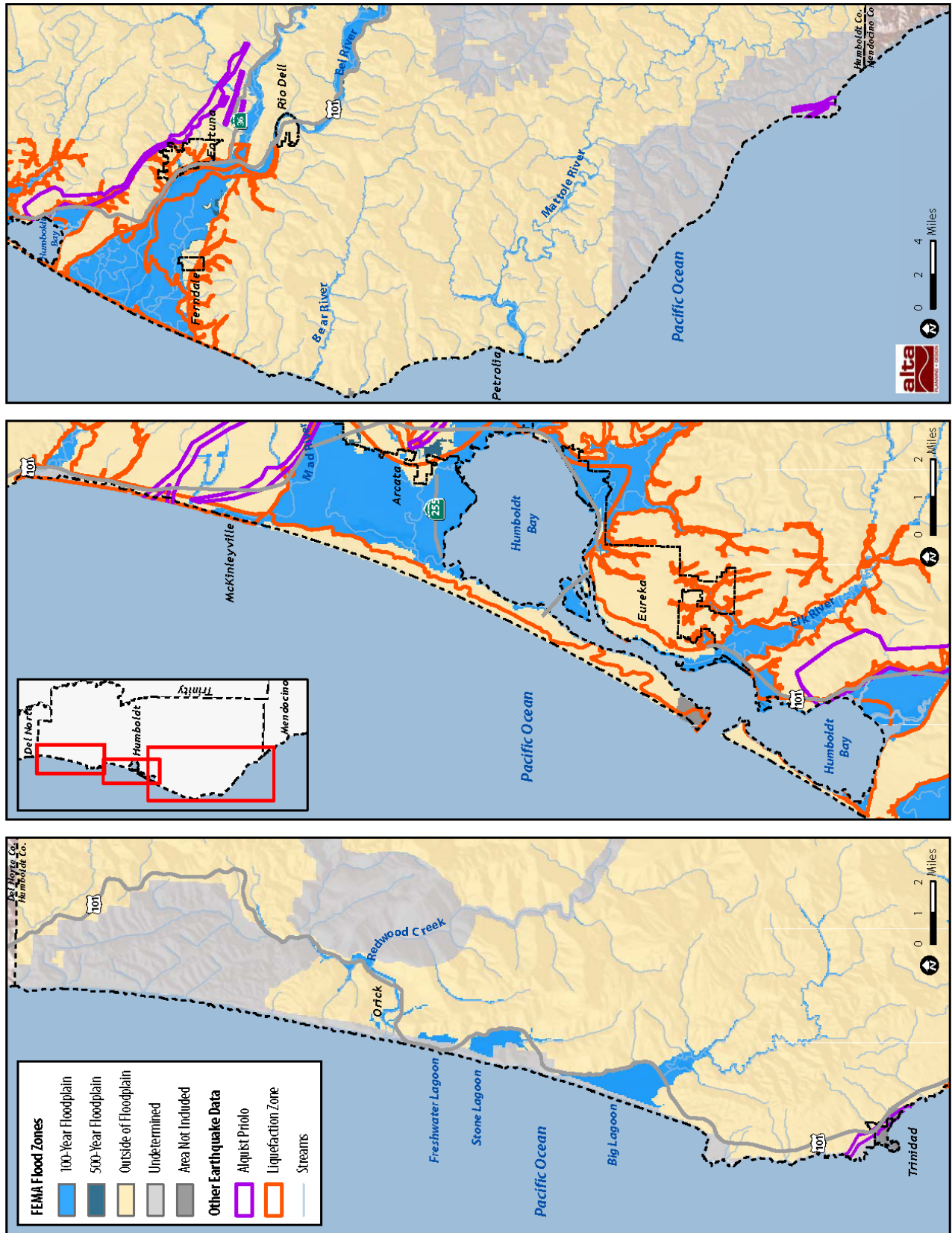
As illustrated in Figure G-2: Flood Zones and Seismic Stability Humboldt County, portions of the CCT corridor located between the cities of Trinidad and Ferndale are within a soil liquefaction zone. A thorough investigation of liquefaction potential along CCT segments proposed for implementation should be completed to assure compliance with regulatory issues related to developments in liquefaction zones.

Hydrologic

Flood Zones

Flood prone areas have been mapped by the Federal Emergency Management Agency (FEMA). FEMA is the federal agency responsible for management of natural hazards and flood plain zones. FEMA maps provide the basis for regulating flood plains in conformance with the National Flood Insurance Program. Proposed trail development within these flood zones may be hindered by regulatory processes. Figure G-2: Flood Zones and Seismic Stability Humboldt County show the 100 and 500 year floodplains, areas outside the floodplains and areas either undetermined or not included in the floodplain assessment.

Figure G-2: Flood Zones and Seismic Stability Humboldt County



Biological

Biological constraints within the study area include sensitive species and their associated habitats as well as unique or threatened habitats. Environmentally Sensitive Habitat Areas (ESHAs) in the coastal zone are any areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments (Coastal Act section 301075). In Humboldt County, some examples of ESHA include:

- Areas of Special Biological Significance (ASBS) as identified by the State Water Board in the coastal zone,
- Rare, Threatened, or Endangered species as listed on state or federal lists,
- Coastal wetlands and lagoons,
- Marshes, swamps, meadows, seeps and other isolated wetland areas,
- Tide pools and near shore reefs,
- Sea caves, islets and offshore rocks, kelp beds, dune habitats, federally designated wilderness areas and primitive areas,
- Rivers, streams, and riparian habitats,
- Rookeries for listed bird species,
- Other special habitats as listed by the California Department of Fish and Game (DFG) or other agency.

Habitats in the Project Area

Habitats found in the project area are primarily composed of Coastal Dunes, Northern (Franciscan) Coastal Scrub and Northern Coastal Bluff Scrub, Prairies and Non-Native Grassland, Sitka Spruce-Douglas Fir Forest, Redwood Forest, Riparian Forest and Riparian Scrub. Vegetation types have been described using various sources including, but not limited to, Holland's (1986) Preliminary Descriptions of the Terrestrial Natural Communities of California and A Manual of California Vegetation (Sawyer and Keeler-Wolf 1995).

Coastal Dunes

The project area contains various coastal dune communities. The characteristic species of these communities is the native dune grass (*Leymus mollis*), but dunes also support beach bluegrass (*Poa macrantha* and *P. douglasii*), yellow sand verbena (*Abronia latifolia*), silky beach pea (*Lathyrus littoralis*), seaside daisy (*Erigeron glaucus*), coast buckwheat (*Eriogonum latifolium*), and seashore false bindweed (*Calyptegia soldanella*). Typically, foredune grasslands are found on relatively high-energy sandy coastlines, dune mat vegetation occurs on semi-stable nearshore dunes or backdune blowouts, and forest communities develop on more stabilized backdunes. Plants have a difficult time establishing in the coastal dune environment due to summer drought, salt spray, high winds, a shifting substrate, porous soils, and high solar radiation. The herbaceous plants of semi-stable dunes have many adaptations for survival in this environment. The introduction of species of such as European beachgrass (*Ammophila arenaria*) and yellow bush lupine (*Lupinus arboreus*) have caused the dunes to stabilize and altered soil

chemistry. This stabilization has allowed other species to colonize the dunes and the native vegetation previously adapted for dunes has been outcompeted.

Coastal Scrub and Bluff Scrub

Northern (Franciscan) Coastal Scrub is characterized by low shrubs, up to two meters tall, in dense patches. This vegetation type occurs on windy, exposed sites with shallow, rocky soils. Dominant species include cascara (*Frangula purshiana*), blue blossom (*Ceanothus thyrsiflorus*), twinberry (*Lonicera involucrata*) and silk tassel (*Garrya elliptica*). Associated native species include Douglas iris (*Iris douglasiana*), sticky monkey flower (*Mimulus aurantiacus*), evergreen huckleberry (*Vaccinium ovatum*), bracken fern (*Pteridium aquilinum* var. *pubescens*), bee plant (*Scrophularia californica*), and wild cucumber (*Marah oreganum*). Northern Coastal Bluff Scrub, an ESHA, is less abundant and occurs on sites that are even more exposed sites with nearly constant winds and high salt content. Soil is rocky and poorly developed. This community type is characterized by similar species as Northern Coastal Scrub, but the plants are low and often prostrate (five to fifty centimeter high) and form continuous mats. In addition to dwarf shrubs, this community contains herbaceous perennials, annuals and varying degrees of succulents. Common native species include coyote brush (*Baccharis pilularis*), salal (*Gaultheria shallon*), leather fern (*Polypodium scolopendria*), beach strawberry (*Fragaria chiloensis*), Pacific stonecrop (*Sedum spathulifolium*), ocean bluff blue grass (*Poa unilateralis*), California bentgrass (*Agrostis densiflorus*), and alumroot (*Heuchera micrantha*).

Grasslands and Prairies

Many areas that were originally native grasslands or scrub have now been replaced with non-native grasslands. These native grasslands have dense to sparse cover of annual grasses with flowering culms up to one meter high. These areas are often associated with numerous species of showy-flowered, native annual forbs (“wildflowers”), especially in years of favorable rainfall. Most plants grow in spring and summer and die back in the fall, persisting in a seed bank. This community type generally exists on soils that are fine-textured, clay-dominated, and often waterlogged during the rainy season, but drier in summer and fall. Dominant species include wild oats (*Avena* sp.), sweet vernal grass (*Anthoxanthum odoratum*), rattlesnake grass (*Brixa* sp.), lupine (*Lupinus* sp.), ox-eyed daisy (*Leucanthemum vulgare*), cudweed (*Gnaphalium* sp.), flax (*Linum bienne*), European hairgrass (*Aira caryophylla*), bentgrass (*Agrostis* sp.), brome (*Bromus* sp.), storksbill (*Erodium* sp.), ryegrass (*Lolium* sp.), black medick (*Medicago lupulina*), foxtail fescue (*Vulpia* sp.) and trefoil (*Lotus* sp.). Native grass species include Pacific reed grass (*Calamagrostis nutkaensis*), California oatgrass (*Danthonia californica*) and fescue (*Festuca* spp.).

The area historically contained other native grassland types such as Coastal Prairie, but many of these areas have been developed or degraded by invasive species. Isolated areas of relatively intact grasslands and prairies exist in the King Range National Recreation Area adjacent to the project area.

Riparian Vegetation

North Coast Riparian Scrub is also present near streams and other wet to mesic areas. This community type is an early seral, broadleaved deciduous riparian thicket usually dominated by any of several willow species (*Salix* spp.), together with several other fast growing shrubs and vines. This type is found on sand and gravel bars along and at the mouths of streams, within the coastal fog incursion zone. In addition to willows, this community type may have a large component of the following species: big leaf maple (*Acer macrophyllum*), wax myrtle (*Morella californica*), black cottonwood (*Populus trichocarpa*), red elderberry (*Sambucus racemosa*) and twinberry (*Lonicera involucrata*). The

understory is generally sparse and contains hydrophytic species including ferns, rushes, sedges and herbaceous plants.

Areas near watercourses and steep areas with seeps or springs are generally dominated by Red Alder Riparian Forest. This community type is mesic, dense, broadleaved forest up to twenty-five meters tall and heavily dominated by red alder (*Alnus rubra*). The understory varies from site to site, but is often dense and dominated by shrubs. Soils are generally richer here, but are often poorly aerated. Species which are commonly associated with this forest type include willow (*Salix* sp.), lady fern (*Athyrium filix-femina*), horsetail (*Equisetum arvense*), velvet grass (*Holcus lanatus*), bitter cherry (*Prunus emarginata*), cow parsnip (*Heracleum lanatum*), blackberry (*Rubus* sp.) and seep monkeyflower (*Mimulus guttatus*). There is often a large component of non-vascular species (fungus, mosses, liverworts and lichens) on the ground and on tree trunks and downed woody debris.

Conifer Forests

Conifer Forests are found throughout the project area. The area contains patches of Sitka Spruce-Grand Fir Forest, which is dense forest dominated by coniferous evergreen trees up to thirty-five meters tall. Stands are usually shorter and wind-pruned on exposed headlands. There is often a dense understory of broadleaved trees, shrubs and perennial herbs, including several species of ferns. This community type occurs on moist, well-drained soils of seaward slopes and coastal headlands, with strong sea winds, frequent fogs, and small annual temperature fluctuation. In addition to Sitka spruce (*Picea sitchensis*) and grand fir (*Abies grandis*), this community also contains Douglas fir (*Pseudotsuga menziesii* var. *menziesii*), hemlock (*Tsuga heterophylla*), Western red cedar (*Thuja plicata*) and shore pine (*Pinus contorta* ssp. *contorta*), false Solomon's seal (*Smilacena racemosa*), false lily of the valley (*Maianthemum dilatatum*), bedstraw (*Galium* sp.), redwood sorrel (*Oxalis oregana*), and hedgenettle (*Stachys ajugoides*). Canopy cover is often dense and the understory ranges from moderate to sparse.

The project area also contains patches of Redwood Forest which is dominated by coast redwood (*Sequoia sempervirens*), Douglas fir (*Pseudotsuga menziesii* var. *menziesii*), California bay (*Umbellularia californica*), bracken fern (*Pteridium aquilinum* var. *pubescens*), chain fern (*Woodwardia fimbriata*), Oregon grape (*Berberis nervosa*), redwood sorrel (*Oxalis oregana*), sword fern (*Polystichum munitum*), and trillium (*Trillium ovatum*).

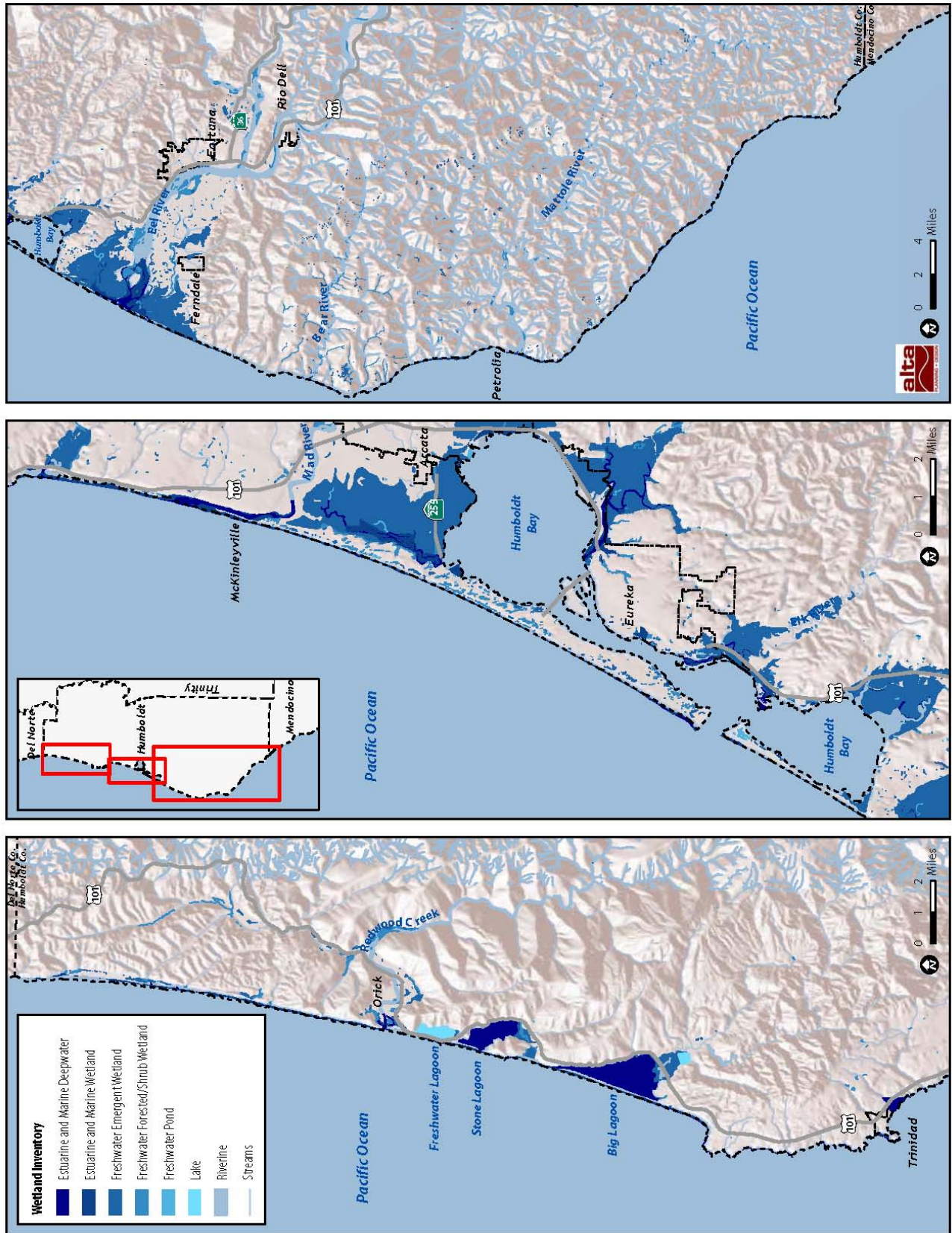
Broadleaved Upland Forests

The project area also contains upland areas dominated by broadleaved plants. These habitat types or communities are generally mixed evergreen forests composed of Douglas fir, California bay, madrone (*Arbutus menziesii*), canyon live oak (*Quercus chrysolepis*), tanoak (*Lithocarpus densiflorus* var. *densiflorus*) and chinquapin (*Chrysolepis chrysohylla*). The understory ranges from very sparse with abundant small woody debris to dense thickets. The herbaceous layer in these forests is generally depauperate with the exception of several species of parasitic and hemi-parasitic plants, many of which are rare or uncommon. Several species of fungus are found in these habitat types, especially in older stands. Sudden oak death (*Phytophthora ramorum*) is a disease that is currently affecting broadleaved communities in the southern part of Humboldt County and is thought to be spread by vehicles and hiking. These broadleaved upland habitat types are often found slightly inland and are not generally on the immediate coastline.

Wetland Areas

The project area contains numerous wetlands including bogs, marshes, swamps, meadows and seeps. Freshwater marshes and brackish and saltwater marshes are all found in the project area and offer unique habitats with different species compositions. Area wetlands are shown in Figure G-3: Wetlands of Coastal Humboldt County. As categorized by the National Wetland Inventory (NWI), the Humboldt County CCT will traverse a wide array of aquatic and mesic habitats including: estuarine and marine deepwater, estuarine and marine wetland, freshwater emergent wetland, freshwater forested/shrub wetland, freshwater pond, lake, riverine and other wetlands.

Figure G-3: Wetlands of Coastal Humboldt County



Sensitive Species and Habitat Communities in the Project Area

The California Natural Diversity Database (CNDDDB) was used to identify sensitive species and communities documented within the project area. The following USGS 7.5 quadrangles were used to scope the project area in the CNDDDB: Arcata North, Arcata South, Bear Harbor, Buckeye Mountain, Cannibal Island, Cape Mendocino, Cooksie Creek, Crannell, Eureka, Fern Canyon, Fields Landing, Ferndale, Fortuna, Orick, Petrolia, Rodgers Peak, Shelter Cove, Shubrik Peak, Trinidad, and Tyee City. Approximately ninety-eight species were identified in the query as RTE species, candidate species, or species of special concern (SOC) as determined by United States legal status under the Federal Endangered Species Act, State of California listing status by DFG, and the California Native Plant Society (CNPS) List, (Table G-2: Special Status Species Potentially Occurring in the Project Study Area).

Within the project area, the CNDDDB revealed the presence or observation of seven federally endangered species including the California clapper rail, tidewater goby, Coho salmon of the central California coast evolutionarily significant unit (ESU), Behren's silverspot butterfly, beach layia, Humboldt Bay wallflower and western lily. The bald eagle is federally delisted and the Western yellow-billed cuckoo and Pacific fisher are federal candidate species. The Western yellow-billed cuckoo, bald eagle, California clapper rail, Coho salmon (central California coast ESU), beach layia, Humboldt Bay wallflower, and Western lily are state endangered species which have been observed in the study area. (Table G-2: Special Status Species Potentially Occurring in the Project Study Area). The following rare, threatened or endangered community types are also present in the project area (CNDDDB 2010):

- Coastal and Valley Freshwater Marsh,
- Coastal Douglas Fir and Western Hemlock Forest,
- Coastal Terrace Prairie,
- Northern Coastal Salt Marsh,
- Northern Foredune Grasslands,
- Sitka Spruce Forest,
- Sphagnum Bog.

The communities and species discussed above are only known occurrences and are limited to species that have been observed, recorded in the CNDDDB and are currently listed. Other rare species such as the northern spotted owl (*Strix occidentalis*) and marbled murrelet (*Brachyramphus marmoratus*) may also occur in the project area; however, they are not recorded in the CNDDDB Rarefind. Species may occur in the area which are not yet listed, or have not yet been observed or recorded. A thorough investigation by a qualified biologist should be completed to assure compliance with regulatory issues related to development in sensitive areas. Implementation of the CCT will be subject to all applicable regulatory requirements of the California Coastal Act or certified Local Coastal Programs, California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Table G-2: Special Status Species Potentially Occurring in the Project Study Area

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
Amphibians & Reptiles					
<i>Actinemysmarmorata</i>	western pond turtle	None	None		Aquatic, Artificial flowing waters, Klamath/North coast standing waters, Marsh and swamp, Wetland
<i>Ascaphustruei</i>	Pacific tailed frog	None	SSC		Aquatic, North coast coniferous forest, Redwood, Riparian forest
<i>Plethodonelongatus</i>	Del Norte salamander	None	None		Old growth
<i>Rana aurora</i>	northern red-legged frog	None	None		Klamath/North coast flowing waters, Riparian forest, Riparian woodland
<i>Ranaboylii</i>	foothill yellow-legged frog	None	None		Aquatic, Chaparral, Coastal scrub, Meadow and seep, Riparian forest, Riparian woodland
<i>Rhyacotritonvariegatus</i>	southern torrent salamander	None	SSC		Old growth, Redwood, Riparian forest

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
Birds					
<i>Accipiter cooperii</i>	Cooper's hawk	None	None		Riparian forest, Riparian woodland
<i>Accipiter striatus</i>	sharp-shinned hawk	None	None		Riparian forest, Riparian woodland
<i>Agelaius tricolor</i>	tricolored blackbird	None	None		Freshwater marsh, Marsh and swamp, Swamp, Wetland
<i>Aquila chrysaetos</i>	golden eagle	None	None		Broadleaved upland forest, Coastal prairie, Valley and foothill grassland
<i>Ardea alba</i>	great egret	None	None		Brackish marsh, Estuary, Freshwater marsh, Marsh and swamp, Riparian forest, Wetland
<i>Ardeaherodias</i>	great blue heron	None	None		Brackish marsh, Estuary, Freshwater marsh, Marsh and swamp, Riparian forest, Wetland
<i>Bonasaumbellus</i>	ruffed grouse	None	None		North coast coniferous forest, Riparian forest
<i>Cerorhincamonocerata</i>	rhinoceros auklet	None	None		

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Charadriusalexandrinusnivosus</i>	western snowy plover	Threatened	None		Sand shore, Wetland
<i>Coccyzusamericanusoccidentalis</i>	western yellow-billed cuckoo	Candidate	Endangered		Riparian forest
<i>Egrettaathula</i>	snowy egret	None	None		Marsh and swamp, Meadow and seep, Riparian forest, Riparian woodland, Wetland
<i>Fraterculacirrhata</i>	tufted puffin	None	None		Protected deepwater coastal communities
<i>Haliaeetusleucocephalus</i>	bald eagle	Delisted	Endangered		Old growth
<i>Nycticoraxnycticorax</i>	black-crowned night heron	None	None		Marsh and swamp, Riparian forest, Riparian woodland, Wetland
<i>Oceanodromafurcata</i>	fork-tailed storm-petrel	None	None		Protected deepwater coastal communities
<i>Pandionhaliaetus</i>	osprey	None	None		Riparian forest, open water
<i>Phalacrocoraxauritus</i>	double-crested cormorant	None	None		Riparian forest, Riparian scrub, Riparian woodland

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Rallus longirostris obsoletus</i>	California clapper rail	Endangered	Endangered		Brackish marsh, Marsh and swamp, Salt marsh, Wetland
<i>Riparia riparia</i>	bank swallow	None	Threatened		Riparian scrub, Riparian woodland
Fish					
<i>Acipenser medirostris</i>	green sturgeon	Threatened	None		Aquatic
<i>Encyclogobius newberryi</i>	tidewater goby	Endangered	None		Aquatic , South coast flowing waters
<i>Oncorhynchus clarkii clarkii</i>	coast cutthroat trout	None	None		Aquatic, Klamath/North coast flowing waters
<i>Oncorhynchus kisutch</i>	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened		Aquatic
<i>Oncorhynchus kisutch</i>	coho salmon - central California coast ESU	Endangered	Endangered		Aquatic
<i>Oncorhynchus mykiss irideus</i>	summer-run steelhead trout	None	None		Aquatic

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Oncorhynchus tshawytscha</i>	Chinook salmon	Threatened	Threatened		Aquatic
Mammals					
<i>Antrozous pallidus</i>	pallid bat	None	None		Chaparral, Coastal scrub, Riparian woodland, Valley and foothill grassland
<i>Arborimus albipes</i>	white-footed vole	None	None		North coast coniferous forest, Redwood, Riparian forest
<i>Arborimus pomo</i>	Sonoma tree vole	None	None		North coast coniferous forest, Old growth, Redwood
<i>Lasionycteris noctivagans</i>	silver-haired bat	None	None		Old growth, Riparian forest
<i>Lasiurus cinereus</i>	hoary bat	None	None		Broadleaved upland forest, North coast coniferous forest
<i>Martes pennanti (pacifica)</i>	Pacific fisher	Candidate	Candidate Threatened		North coast coniferous forest, Old growth, Riparian forest
<i>Myotis evotis</i>	long-eared myotis	None	None		

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Myotis yumanensis</i>	Yuma myotis	None	None		Riparian forest, Riparian woodland
Invertebrates					
<i>Cicindela hirticollis gravida</i>	sandy beach tiger beetle	None	None		Coastal dunes
<i>Juga orickensis</i>	redwood juga	None	None		Aquatic, Klamath/North coast flowing waters
<i>Speyeria zerene behrensii</i>	Behren's silverspot butterfly	Endangered	None		Coastal prairie
Non-Vascular Plants					
<i>Anomobryum julaceum</i>	slender silver moss	None	None	2.2	Broadleaved upland forest, North coast coniferous forest
<i>Discelium nudum</i>	naked flag moss	None	None	2.2	Coastal bluff scrub
<i>Fissidens pauperculus</i>	minute pocket moss	None	None	1B.2	North coast coniferous forest
<i>Trichodon cylindricus</i>	cylindrical trichodon	None	None	2.2	Broadleaved upland forest

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Usnea longissima</i>	long-beard lichen	None	None		Broadleaved upland forest, North coast coniferous forest, Old growth, Redwood
Vascular Plants					
<i>Abronia umbellata ssp. breviflora</i>	pink sand-verbena	None	None	1B.1	Coastal dunes
<i>Astragalus pycnostachyus var. pycnostachyus</i>	coastal marsh milk-vetch	None	None	1B.2	Coastal dunes, Marsh and swamp, Wetland
<i>Calamagrostis foliosa</i>	leafy reed grass	None	Rare	4.2	Coastal bluff scrub, North coast coniferous forest
<i>Carexarcta</i>	northern clustered sedge	None	None	2.2	Bog and fen, North coast coniferous forest, Wetland
<i>Carex lenticularis var. limnophila</i>	lagoon sedge	None	None	2.2	Bog and fen, Marsh and swamp, North coast coniferous forest
<i>Carex leptalea</i>	bristle-stalked sedge	None	None	2.2	Bog and fen, Freshwater marsh, Marsh and swamp, Meadow and seep, Wetland
<i>Carex lyngbyei</i>	Lyngbye's sedge	None	None	2.2	Marsh and swamp, Wetland

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Carex praticola</i>	northern meadow sedge	None	None	2.2	Meadow and seep, Wetland
<i>Carex saliniformis</i>	deceiving sedge	None	None	1B.2	Coastal prairie, Coastal scrub, Marsh and swamp, Meadow and seep, Wetland
<i>Carex viridula var. viridula</i>	green yellow sedge	None	None	2.3	Bog and fen, Marsh and swamp, North coast coniferous forest, Wetland
<i>Castilleja affinis ssp. litoralis</i>	Oregon coast paintbrush	None	None	2.2	Coastal bluff scrub, Coastal dunes, Coastal scrub
<i>Castilleja ambigua ssp. humboldtiensis</i>	Humboldt Bay owl's-clover	None	None	1B.2	Marsh and swamp, Salt marsh, Wetland
<i>Clarkia amoena ssp. whitneyi</i>	Whitney's farewell-to-spring	None	None	1B.1	Coastal bluff scrub, Coastal scrub
<i>Cordylanthus maritimus ssp. palustris</i>	Point Reyes bird's-beak	None	None	1B.2	Marsh and swamp, Salt marsh, Wetland
<i>Empetrum nigrum ssp. hermaphroditum</i>	mountain crowberry	None	None	2.2	Coastal bluff scrub, Coastal prairie

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Erysimum menziesii ssp. eurekaense</i>	Humboldt Bay wallflower	Endangered	Endangered	1B.1	Coastal dunes
<i>Gilia capitata ssp. pacifica</i>	Pacific gilia	None	None	1B.2	Coastal bluff scrub, Coastal prairie, Valley and foothill grassland
<i>Gilia millefoliata</i>	dark-eyed gilia	None	None	1B.2	Coastal dunes
<i>Hesperis matronalis ssp. brevifolia</i>	short-leaved evax	None	None	1B.2	Coastal bluff scrub, Coastal dunes
<i>Juncus nevadensis var. inventus</i>	Sierra rush	None	None	2.2	Bog and fen, Wetland
<i>Lathyrus japonicus</i>	seaside pea	None	None	2.1	Coastal dunes
<i>Lathyrus palustris</i>	marsh pea	None	None	2.2	Bog and fen, Coastal prairie, Coastal scrub, Marsh and swamp, North coast coniferous forest, Wetland
<i>Layia carnososa</i>	beach layia	Endangered	Endangered	1B.1	Coastal dunes

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Lilium occidentale</i>	western lily	Endangered	Endangered	1B.1	Bog and fen, Coastal bluff scrub, Coastal prairie, Coastal scrub, Freshwater marsh, Marsh and swamp, North coast coniferous forest, Wetland
<i>Lycopodiella inundata</i>	inundated bog-clubmoss	None	None	2.2	Bog and fen, Marsh and swamp, Wetland
<i>Lycopodium clavatum</i>	running-pine	None	None	4.1	Marsh and swamp, North coast coniferous forest, Wetland
<i>Mitella caulescens</i>	leafy-stemmed mitrewort	None	None	4.2	Broadleaved upland forest, Meadow and seep, North coast coniferous forest
<i>Monotropa uniflora</i>	ghost-pipe	None	None	2.2	Broadleaved upland forest, North coast coniferous forest
<i>Montia howellii</i>	Howell's montia	None	None	2.2	Meadow and seep, North coast coniferous forest, Vernal pool, Wetland
<i>Oenothera wolffii</i>	Wolf's evening-primrose	None	None	1B.1	Coastal bluff scrub, Coastal dunes, Coastal prairie
<i>Packera bolanderi</i> var. <i>bolanderi</i>	seacoast ragwort	None	None	2.2	Coastal scrub, North coast coniferous forest

Scientific Name	Common Name	Federal Status	State Status	CNPS	Habitat
<i>Piperia candida</i>	white-flowered rein orchid	None	None	1B.2	Broadleaved upland forest, North coast coniferous forest, Ultramafic
<i>Polemonium carneum</i>	Oregon polemonium	None	None	2.2	Coastal prairie, Coastal scrub, Lower montane coniferous forest
<i>Puccinellia pumila</i>	dwarf alkali grass	None	None	2.2	Marsh and swamp, Meadow and seep, Wetland
<i>Romanzoffia tracyi</i>	Tracy's romanzoffia	None	None	2.3	Coastal bluff scrub, Coastal scrub
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	None	None	4.2	Broadleaved upland forest, Coastal prairie, Coastal scrub, North coast coniferous forest
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	None	None	1B.2	Broadleaved upland forest, Coastal prairie
<i>Sidalcea oregana ssp. eximia</i>	coast sidalcea	None	None	1B.2	Meadow and seep, North coast coniferous forest, Wetland
<i>Spergularia canadensis var. occidentalis</i>	western sand-spurrey	None	None	2.1	Marsh and swamp, Wetland
<i>Viola palustris</i>	alpine marsh violet	None	None	2.2	Bog and fen, Coastal scrub, Wetland

Measures for Reducing Adverse Impacts

There are numerous protective measures available to minimize adverse impacts to sensitive habitats and species. References are available for guidelines on trail design, construction and maintenance to minimize disturbance of sensitive areas. Links to books such as “Lightly on the Land: The SCA Trail-Building and Maintenance Manual,” “Natural Surface Trails by Design: Physical and Human Design Essentials of Sustainable, Enjoyable Trails” and “The US Trail Construction and Maintenance Notebook 2007 Edition” are available at: www.trailbuilders.org/resources/books1.html.

Trail development through wetlands should seek to avoid or minimize the filling of wetlands by choosing the least environmentally damaging feasible trail alignment. If wetlands or other sensitive habitat areas are impacted, mitigation measures and best management practices will need to be employed as outlined by CEQA and the Coastal Act to minimize adverse environmental impacts. Boardwalks are one design option to help minimize wetland impacts.

Additional measures to reduce adverse impacts to sensitive habitats and species include:

- Surveys for and monitoring of rare, threatened or endangered species or habitat communities,
- Soil erosion and surface runoff control measures,
- Minimization or avoidance of disturbing natural hydrologic regimes,
- Limiting trail construction activities to outside the reproductive/breeding times of sensitive species,
- Implementation of trailhead signs and interpretive signs describing potential negative impacts to sensitive species or habitats,
- Routing of trails away from nest sites, rookeries, sensitive species habitats and communities,
- Use of boardwalks, bridges and fences to reduce potential disturbance of sensitive habitats,
- Removal and maintenance of invasive species and/or pathogens or disease vectors,
- Protection of large trees and wildlife snags during trail construction,
- Spill and/or pollution prevention and containment plans.

Global Climate Change and Sea Level Rise

In March 2006, the California Environmental Protection Agency presented the Climate Action Team Report to the Governor and the State Legislature, which evaluated three scenarios for reducing the amount of greenhouse gases released into the atmosphere over the next century. Depending on whether and how much these emissions can be reduced, the report projects that by the year 2100 average temperatures in California will rise between 3 and 10.5 degrees Fahrenheit.

One of the most publicized impacts of global warming is a predicted acceleration of sea level rise. According to the California Natural Resources Agency, sea levels have risen by as much as seven inches along the California coast over the last century. According to the National Oceanic and Atmospheric Administration (NOAA), the current mean sea level trend at its North Spit Station in Humboldt County is approximately one inch every five years based on monthly mean sea level data from 1977 to 2006, which is equivalent to a change of 1.6 feet in one hundred years. More recent analyses indicate that sea level rise from warming oceans may be 4.6 feet by the year 2100.



As sea level rises, the flood risks will be exacerbated in coastal areas as higher storm surges cause greater tidal action and flooding that may reach into inland areas that have historically been untouched by sea waters. Potential impacts include physical injury, loss of property and belongings, saline intrusion into drinking water sources and agricultural water supplies and emotional trauma from such events.

In the California Energy Commission's 2009 study titled "The Impacts of Sea Level Rise on the California Coast," researchers modeled the areas, population, and assets in California at risk from inundation during a coastal storm after sea level had risen by about five feet (1.4 m). In the face of the encroaching ocean, up to 480,000 people and their residential assets (homes and property) were found to be at risk by the end of the century from such flooding events. In short, much of California's prime real estate will be affected in coming decades by accelerating sea level rise. According to the California Energy Commission (CEC), to guard against flooding from a 1.4 meter sea level rise, Humboldt County will need an estimated thirty-six miles of new levees and 6.6 miles of new seawalls, with an estimated capital cost of \$460 million (in year 2000 dollars).

In response to concerns over sea level rise, the California Coastal Conservancy (SCC) Board adopted the Climate Change Policy and the Project Selection Criteria in 2009. The Climate Change Policy describes the concerns about effects of climate change on coastal, marine, and near-coast resources within SCC's jurisdiction. It further identifies the legislative and policy directives that call for the SCC to address these impacts, and it describes strategies and actions that the SCC will use to address climate change.

As referenced in the Climate Change Policy and the Project Selection Criteria, SCC's Strategic Plan 2007 identifies the many effects that climate change will have on ocean, coastal and near-coastal resources. The SCC Strategic Plan reiterates the need to consider these impacts in determining the priority of expenditures in the design and siting of SCC-funded infrastructure projects to identify tools to mitigate and plan for a range of predicted changes. The SCC Strategic Plan includes the following objectives relevant to the Humboldt County CCT project:

- SCC Strategic Plan 2007 Objective 1A Strategy 4: Take sea level rise into consideration when planning alignment [of the Coastal Trail].
- SCC Strategic Plan 2007 Objective 1C Strategy 3: Incorporate the latest scientific understanding about sea level rise into design and siting of trails.

In December 2007, by resolution of the Board of Supervisors, Humboldt County joined the International Council for Local Environmental Initiatives (ICLEI) Cities for Climate Protection Campaign. Using ICLEI's climate protection protocols and software, the county is working through the Redwood Coast Energy Authority (RCEA) on a countywide multi-jurisdictional effort to reduce greenhouse gas (GHG) emissions. The effort is currently in step one of a five-step process:

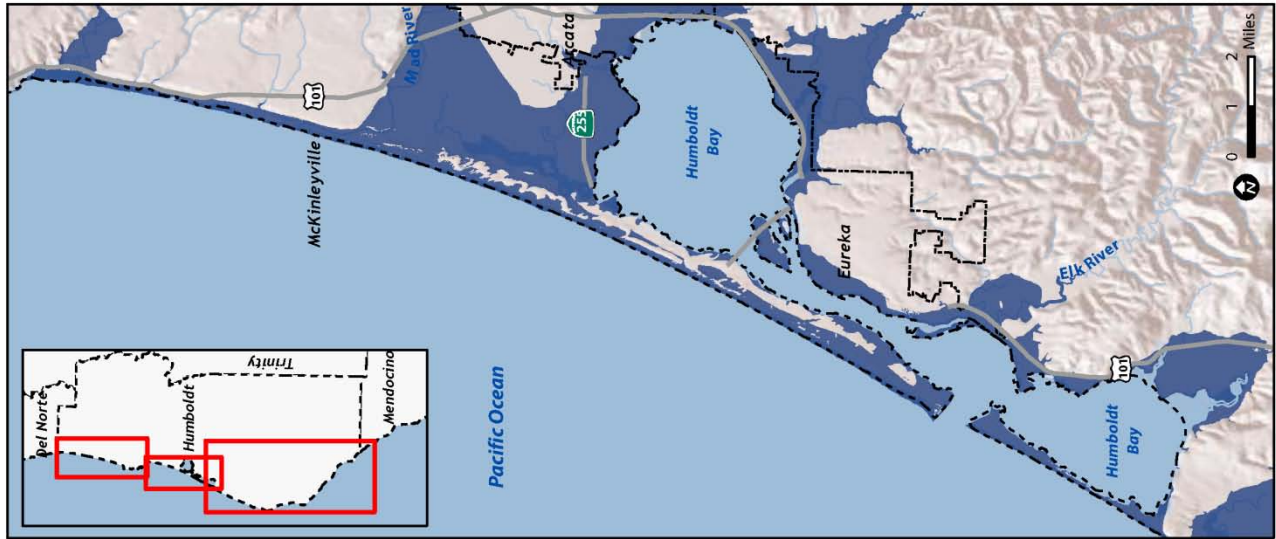
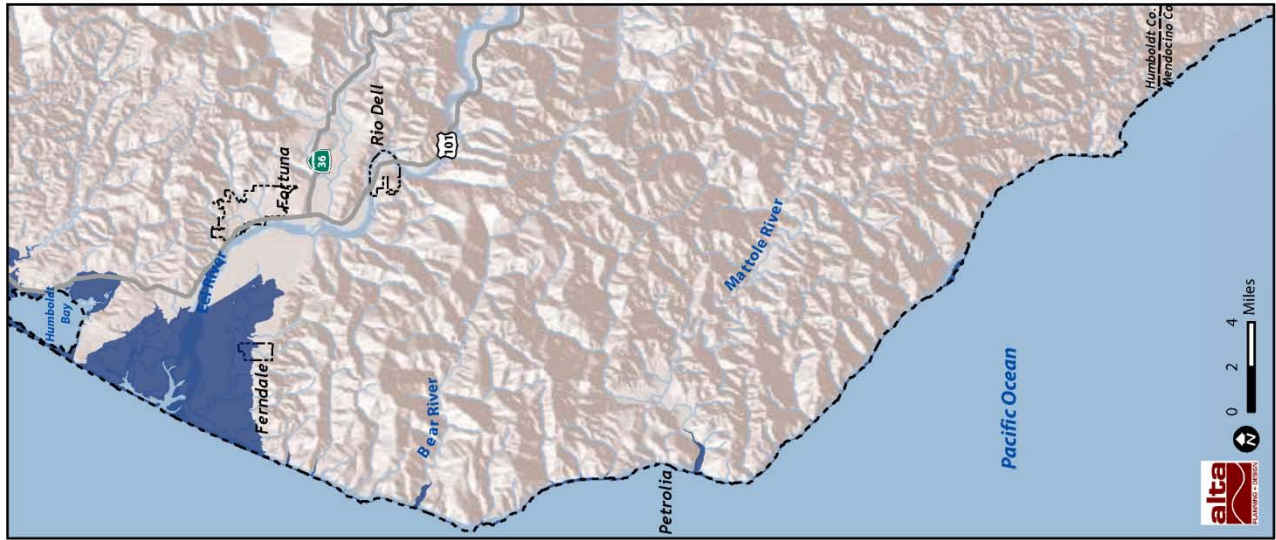
- Inventory greenhouse gas emissions,
- Set countywide reduction target,
- Prepare an emissions reduction plan,
- Implement the emissions reduction plan,
- Monitor the emissions reduction plan.

Step one will inventory and categorize past, present, and future conditions to help identify opportunities and priorities for reducing GHG emissions.

Figure G-4: Sea Level Rise Scenario Humboldt County shows the hundred-year flood zone and extent of coastal flooding associated with a 1.4 m sea level rise for the northern, central, and southern planning areas, respectively¹. The areas shown in light blue are currently vulnerable to a hundred year flood event. With a 1.4 m sea level rise, the additional areas shown in dark blue will be at risk. The portions of the northern planning area likely to experience the most extensive coastal flooding are around the Humboldt Lagoons located south of Orick and Little River State Beach located south of Trinidad. In the central planning area, Humboldt Bay and the lower Eel River Valley, including the City of Ferndale, could experience serious flooding. Coastal flooding associated with sea level rise is expected to have a relatively minor impact on the topographically diverse southern planning area; however, anywhere along the coast with coastal bluffs may be subject to bluff retreat as a result in sea level rise.

¹This information is made available for informational purposes only. This data shall not be used to assess actual coastal hazards, insurance requirements, or property values and specifically shall not be used in lieu of Flood Insurance Studies and Flood Insurance Rate Maps issued by FEMA. Local governments or regional planning agencies should conduct detailed studies to better understand the potential impacts of sea level rise in their jurisdictions.

Figure G-4: Sea Level Rise Scenario Humboldt County



Destinations

As the CCT winds through Humboldt County, CCT users have the opportunity to connect to recreational attractions, shopping, and employment centers while linking to existing trails, sidewalks and bikeway networks. Connections to area destinations expand the utility of the corridor from more than just a recreational facility along the California coast to a transportation facility for commuters in each community along the route.

Attractors and generators are locations where bicyclists and pedestrians either originate from or end their trip. The CCT will provide access to a multitude of recreational and utilitarian attractors while area communities will serve as trail user generators. Within and between these areas, the CCT will be a connecting facility. CCT alignment maps in Chapter 4 detail local destinations within each planning area, including trail user amenities (locations with goods and services), regional attractors (informational, educational, and historical facilities), trail heads, campgrounds, wildlife viewing areas, and beach access points. Commercial and recreational destinations are outlined below. In order to fully function as a regional trail system and part of a state-wide trail system, the Humboldt CCT needs to have well-planned trail user support facilities that also function as regional destinations, e.g. trail heads, campgrounds, and visitor centers.



The road on the south spit of Humboldt Bay provides a cyclist route parallel to the beach.

Towns and Commercial Centers

Developed areas not only have recreational generators, but have the civic, commercial, residential, and transportation infrastructure that generates trail users. These centers will also provide goods and services for CCT users.

North

The northern portion of the coast is sparsely populated; however, the City of Trinidad and the coastal community of Orick have unique coastal amenities that draw both residents and visitors to the coast.



Historic character of downtown Ferndale.

Central

More than half of the Humboldt County population resides in the central planning area. The largest existing Class I bike path in the county, the Hammond Trail, runs through the community of McKinleyville. Located on Humboldt Bay, Eureka and Arcata present many opportunities to use existing infrastructure, including rail corridors and an urban waterfront, to provide access to commercial centers. Smaller communities on the Bay

such as Manila, King Salmon, and Fields Landing also have existing amenities and potential trail corridors. Numerous schools, historic sites, civic and cultural destinations also serve as potential generators of trail users.

South

In the southern planning area, the agricultural communities of Loleta and Ferndale attract visitors to their rural scenic quality and historic Victorian architecture. Residents of these communities will potentially use the CCT for both recreation and access between communities. While not directly adjacent to the coast, residents of the City of Fortuna are likely to access the CCT and coastal access points along the southern coast of Humboldt. Petrolia and Shelter Cove residents are directly adjacent to portions of the CCT and frequent coastal access points. These communities in the southern planning area attract seasonal visitors, especially for access to the Lost Coast Trail segment of the CCT.

Recreational Facilities

Recreational attractors and generators include scenic vistas, wildlife viewing areas, beaches, recreational or interpretive facilities and other points of interest and are scattered along the coastal zone of Humboldt County. Besides attracting visitors and potential trail users, many of these recreational areas provide campgrounds for CCT users.



Mattole Beach Campground.

North

Portions of Redwood National and State Parks and other state parks including Humboldt Lagoons, Patrick's Point, Big Lagoon County Park, and Trinidad State Beach are located in the northern planning area. The natural amenities and coastal access draw visitors from local communities, across the state, and even nationally and globally.

Central

The central planning area has many coastal recreational areas that have high regional user demand.

- Hammond Trail
- Mad River Beach and County Park
- Arcata Marsh and Wildlife Sanctuary
- Ma-le'l Dunes
- Little River State Beach
- Eureka Waterfront
- Elk River Wildlife Sanctuary
- Humboldt Bay National Wildlife Refuge
- Samoa Dunes Recreation Area
- Manila Dunes South

The southern coast is known for its rugged coastline and rural vistas. The BLM King Range National Conservation Area and Lost Coast Trail attract use from local communities, but also state and national visitors. Other points of local interest include Centerville County Park and Beach and the BLM Lost Coast Headlands.



Coastal view from the King Range.

Photo credit: B. Wick

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Appendix H: Design Standards Review

Relevant trail and shared roadway design standards from federal, state, regional and local planning documents are summarized below. While this chapter serves as an overview of established standards that have been applied in areas affecting the CCT in Humboldt County, Appendix I: Trail Design Standards summarizes the best practices and recommendations for the implementation of CCT alignments in Humboldt County. Many recommended CCT segments in the Humboldt County Coastal Trail Implementation Strategy overlap with routes proposed in previous regional and local planning documents. Referencing specific design standards associated with previous route planning will be useful for agencies and jurisdictions seeking to develop planned segments of the Humboldt CCT.

Federal Design Standards

National Park Service Trail Standards

The most recent National Park Service (NPS) document providing guidance for trail construction and maintenance is the NPS Trails Management Handbook (Handbook), published in 1983 by the Denver Service Center. The Handbook notes that each park area needs to develop its own specific standards and offers general guidelines for trail design and selection of trail alignments. It also suggests guidelines for trail maintenance and design and construction of trail features such as turnpikes, drainage structures and signs. The Handbook includes the following guidelines specific to trails:

- Existing trails should be integrated with new construction as much as possible providing old trails were properly laid out and have good drainage
- For interpretive purposes, the trail should meander to take advantage of scenic panoramas and historic, cultural and natural resources
- The alignment should follow the contours of the land and be generally curved. Sharp angular turns over fifty degrees and long straight stretches should be avoided
- Hillside alignments should, wherever possible, angle across the natural slope and take advantage of natural drainage to minimize the need for major drainage modifications
- As a general rule, a grade should not be steeper than ten percent. Grades of less than seven percent are ideal.
- Trail dimensions should be based on the type and volume of use anticipated, on the stability of native materials, and on the type of terrain along the route. Generally a trail tread width should not be less than eighteen inches for foot trails and twenty-four inches for horse trails. Additional width could be required to reduce impacts from heavy traffic.
- Avoid sensitive habitat and species

Maintenance guidelines in the report include direction on how to develop trail logs and a suggested hierarchy of maintenance levels. The handbook defines five types of trails as follows:

- Type A - Major Trails: Marked routes that are improved and maintained for foot and horseback traffic. Minimum tread width is usually twenty-four inches, and overall grade is less than ten percent. For distances less than 150 feet, grade should not exceed fifteen percent. Type A trails are to have first priority for maintenance.

- Type B - Minor Trails: Also improved and maintained for foot and horseback traffic, but reflect an overall lower construction standard than Type A trails. The tread does not have to meet the maximum width standard and may be limited to the space required to form a single-file trail. Overall grade should be less than fifteen percent. For distances less than 150 feet, grade should not exceed eighteen percent.
- Type C - Wilderness Trails: These are marked trails but are generally unimproved except for clearing. Minimum tread width is eighteen inches, with an overall grade of less than fifteen percent. For distances of less than 150 feet, grade should not exceed twenty percent. These trails have the lowest maintenance priority except where safety is concerned.
- Type D – Walks: Surfaced for foot and wheelchair travel and built to high standards.
- Type E – Other: Specialized trails including bicycle and snowmobile routes.

Redwood National Park (RNP) Trail and Backcountry Management Plan

While this management plan does a thorough job of designating future trails to be constructed, providing lengths and locations, the document does not clearly establish design standards for these trails. Instead, some general standards are outlined to be considered during trail construction. For trails designated as ADA accessible, RNP recommends meeting the requirements of the Uniform Federal Accessibility Standards and American Disabilities Act to the greatest extent possible. Other loose standards to be considered during trail design and construction are as follows:

- Under all action alternatives, the NPS proposes to construct a minimum of two trailheads to serve trail users and backcountry campers, and to enlarge or redesign two existing trailheads to address safety and operational concerns, and increase the accessibility of the camps for users of all abilities.
- Trailhead Redesign—Under all three action alternatives (alternatives B, C, and D), existing trailheads at the Mill Creek Horse Trail and Lyons Ranch Trail would be enlarged and redesigned to improve safety and operational characteristics.
- All culverts installed on trails would be sized for one hundred year storm events
- No old growth trees or trees greater than eighteen inches diameter at breast height (dbh) of any species would be removed under any alternative.
- Adverse impacts to streams or associated riparian areas from soil erosion and run-off following trail construction would be avoided or minimized by constructing trails when soils are not saturated or susceptible to erosion and run-off. If it is not possible to construct a trail or install a trail bridge with sufficient time for natural revegetation to occur before the onset of the rainy season, best management practices incorporating standard erosion control methods would be used such as scattering straw, installing silt fences or replanting with native plants.
- Trail bridges would be constructed across permanent streams to improve visitor safety and make crossing easier and more comfortable in wet weather. Some bridges would also be installed across intermittent streams for major trails such as the East Side Trail that are expected to be used during wet periods. Trail bridges allow year-round use of a trail by visitors who do not want to negotiate a stream crossing through the water. High flows generally occur during rainy seasons and periods when visitor use is expected to be low. Seasonal footbridges are installed across Redwood Creek and the Smith River near Stout Grove during low summer flows. The legislation expanding Redwood National Park prohibits installation of permanent footbridges across Redwood Creek.

Redwood National and State Parks General Management Plan

- All culverts installed on trails would be sized for one hundred year storm events

Additional information from this plan may be found on line at: www.nps.gov/redw/parkmgmt/planning.htm

Bureau of Land Management

King Range Natural Conservation Area (KRNCA) Resource Management Plan Area-Wide Standards and Guidelines (SG) for Trail Construction

The following standards and guidelines would be followed in the development of new trails, conversion of logging roads to trails, and maintenance of trails in all three management zones:

REC SG1: Limit trail tread construction and maintenance (except drainage work) to non-rain periods.

REC SG2: Minimize disruption of natural hydrologic flow paths, including diversion of stream flow and interception of surface and subsurface flow.

REC SG3: Minimize sediment delivery to streams from trails. Outsloping of the tread surface is preferred, except where outsloping would increase sediment delivery to streams or where outsloping is infeasible or unsafe. Route drainage away from potentially unstable channels, fills, and hill slopes.

REC SG4: Provide and maintain fish passage at all crossings of existing and potential fish bearing streams. Most stream crossings in the KRNCA Backcountry Zone would be fords with no permanent bridges. BLM personnel or users may place temporary primitive low-water bridges (stepping stones, driftwood logs etc.) at crossings during the summer months. These crossings would be constructed/inspected so that they do not impede fish passage.

REC SG5: Fords on inland streams would be constructed/armored so that bank erosion is minimized.

REC SG6: Use materials for bridge repair, replacement, or temporary crossings that minimize the possibility of introduction of fine sediments or toxins into the drainage system.

REC SG7: Minimize the disturbance to riparian reserves for bridge and stream crossing replacement. Disturbed ground should receive appropriate erosion control treatment (mulching, seeding, planting etc.) prior to the beginning of the wet season.

REC SG8: Close and rehabilitate random social trails within riparian areas.

REC SG9: Trail maintenance activities within one-quarter of a mile of spotted owl nest sites would be conducted with hand-tools only between February 1st and August 6th.

REC SG10: Use vegetative or topographic screening, create distance buffers and establish additional construction criteria in consultation.

South Spit Interim Management Plan (2002)

- Driftwood or post and cable fencing may be used to prevent undesired travelways and use patterns that may impact important biological and other sensitive areas

Bureau of Land Management and the U.S. Fish and Wildlife Service

Ma-le'l Dunes Access Plan (2008)

- Improved parking area will be surfaced with crushed gravel
- Trailhead steps, cable steps, and wooden steps and rail would be installed at various locations along trail ways
- A footbridge will be used over a seasonal wetland area

Signage will be implemented to alert users to other concurrent uses and direct them to appropriate use areas.

State Design Standards

California State Parks, Dry Lagoon State Park and Harry A. Merlo State Recreation Area General Plan (1983)

Trails Management Guidelines and Standards

Vegetation grows quickly along the rainy coast of Northern California. The trails throughout the Park will require regular maintenance to keep them passable. The trail along Stone Lagoon barrier beach and Big Lagoon barrier beach will need to be periodically closed due to breaching of the beaches. Staff may find it best to discourage Coastal Trail use along Stone Lagoon barrier beach, Stone Lagoon peninsula and Big Lagoon barrier beach during the winter season, and detour such use to the inland side of Stone Lagoon.

- Interpretative elements must be designed to withstand sand, wind, salt air, dampness and vandalism. Interpretative elements must not be installed in the “blue goo” area or on the barrier beaches due to instability during the winter wet season.
- All excavation will be reviewed by the department’s Cultural Resource Management Unit
- Trails, roads, picnic sites, campsites and building sites will be selected, designed, or aligned to reduce erosion problems
- Facilities will be sited to reduce vegetation loss
- Appropriate trails may be developed if it is determined that they will have no significant detrimental impact on the forest resource
- No trail development, including trail construction, shall occur on archeological sites Hum-120 and Hum-129
- The route of the Pacific [California] Coastal Trail should be laid out to take advantage of the variety of environmental settings, including Stone Lagoon barrier beach, the meadows, ravines, alder and spruce forests of Stone Lagoon peninsula, Dry Lagoon, Truttman Sink, the old-growth redwood forest, and Big Lagoon Marsh.

The Dry Lagoon State Park and Harry A. Merlo State Recreation Area General Plan is available online at: www.parks.ca.gov/pages/21299/files/105.pdf

California State Parks, Little River State Beach Restoration and Enhancement Plan (2009)

This plan contains several appendices with design guidelines recommended for the trails and trail amenities planned for the Little River State Beach (LRSB) area. Design guidelines are included for the following:

- Fencing and sign location on fencing
- Parking lot handicap access
- Parking lots A and B
- Gates
- Boardwalk helical screws
- Boardwalk
- Boardwalk bridge
- Boardwalk benches
- Equestrian trail
- Boundary signs
- Example parking lot signs
- Trash receptacles
- Interpretive displays
- Trailhead and junction signs

Design standards include illustrative drawings and engineering cross sections with dimensional measurements.

To review the details of these design standards please request a copy of the document from the Planning Division of State Parks at PO Box 942896 Sacramento, CA 94296.

California State Parks, Field Techniques for Forest and Range Road Removal: Appendix A

This appendix includes cross sections of road decommissioning strategies including road to trail conversion. To review a cross section of road to trail conversion please visit:

[www.parks.ca.gov/pages/23071/files/field techniques for road removal app.pdf](http://www.parks.ca.gov/pages/23071/files/field%20techniques%20for%20road%20removal%20app.pdf)

California Coastal Conservancy Coastal Accessway Standards

The California Coastal Conservancy's Standards and Recommendations for Accessway Location and Development (Standards) provide guidelines for the location, size and type of accessways along the California coast. The California Coastal Commission and Conservancy adopted these Standards to ensure a consistent approach is used for access construction. Since sites and circumstances vary along the coast, the application of

these Standards is flexible. Specifications for construction of certain parameters will vary depending on the Local Coastal Program (LCP) requirements or Commission permit conditions. The Standards apply to all new and existing development.

The Standards provide guidance on thirteen topic areas, including coastal resource protection, access easements, the construction and location of lateral and vertical accessways, overlooks, trails, and coastal bikeways. Concerning trails, the Standards state that specifications for construction will vary according to the LCP. In general, trail easements should be a minimum of twenty-five feet in width and should never be closer than ten feet to an existing residence. Trails should be established on ocean front parcels, depending on the topographic conditions. These trails should connect: a) the shore with inland units of the federal, state, or local park systems; b) access easements; or c) the road with a scenic overlook. Such trails must avoid geologically unstable and erosive soils. Prime agricultural soils should also be avoided except where the trail will not interfere with agricultural production. Trails can feature steps, footbridges, appropriate paving materials, adequate trail drainage system, trash receptacles, benches, barriers, restrooms and signs.

California Coastal Trail Siting and Design Standards

The CCT trail is intended to be designed and implemented to achieve the following goals:

- Provide a continuous walking and hiking trail as close to the ocean as possible.
- Provide maximum access for a variety of non-motorized uses by utilizing alternative trail segments where feasible.
- Maximize connections to existing and proposed local trail systems.
- Ensure that the trail has connections to trailheads, parking areas, interpretive kiosks, inland trail segments, etc. at reasonable intervals.
- Maximize ocean views and scenic coastal vistas.
- Provide an educational experience where feasible through interpretive facilities.

The trail should be located along or as close to the shoreline where physically and aesthetically feasible. Where it is not feasible, inland bypass segments should be aligned as close to the shoreline as possible. Shoreline segments that cannot be accessed at all times, due to tide fluctuations, should have alternative inland route options.

Where gaps in the CCT are identified, interim trail options should be identified to guarantee trail continuity. When opportunities become available to relocate the trail to the specification noted above, efforts should be made to do so. The interim trail should meet the design standards for the CCT.

Efforts to minimize impacts to environmentally sensitive habitat and prime agricultural lands should be made to the utmost feasible extent. Sections of the trail may be closed seasonally to protect sensitive species. Trail access points should be limited to “pass and repass,” with alternative alignments provided if necessary and feasible. Mitigation of any necessary impacts can include boardwalk, reducing trail width, protective fencing and adequate drainage along the edges of agricultural land.

The CCT should include existing oceanfront trails, paths and support facilities (e.g. public shorelines parks and beach facilities) where appropriate and feasible.

Locating the CCT on vehicular roadways should be avoided if possible. Where not possible it is desirable to:

- Position the trail off of the pavement, but within the public right-of-way.
- Separate the trail from traffic by a safe distance or by the use of physical barriers.
- Physical barriers should not obstruct or detract from the scenic views and visual character of the area.
- Roadway crossings should be made with overpasses, underpasses, or other alternative at-grade crossings.
- At-grade crossings should include appropriate directional and traffic warning signage.

Support facilities (parking and trailhead facilities) should be provided to encourage access to the CCT.

California State Parks' Accessibility Guidelines (2009)

California State Parks' Accessibility Guidelines (Guidelines) present principles for providing accessibility within the State Parks. The Guidelines are the primary tool provided by the California State Parks Accessibility Program to accomplish its mission of guiding the creation of universal access to California State Parks. The Guidelines embody a compilation of accessibility standards, recommendations and regulations for compliance with accessibility laws, particularly those established by the Federal Access Board, and are intended for use throughout California State Parks. According to the Guidelines, all persons and entities should independently confirm standards, recommendations, laws and regulations related to accessibility.

The Guidelines include standards and recommendations for numerous facilities common to parks, including trails. As stated in the Guidelines, every effort should be made to install and maintain accessible trails. To this end, the Guidelines contain standards for accessible trails such as maximum running slopes, minimum width and frequency of resting spaces, maximum acceptable gaps in the trail surface, optimal clearances and signage requirements. The Guidelines further state that accessible trails should represent the most significant features and environmental experiences unique to the area.

California State Parks, Patrick's Point State Park General Plan (1983)

Trail Development Standards

- Portions of the trail system will be regraded, resurfaced, and redesigned to allow full access to all people. Full access trails will include the Agate Beach overlook, a route out to Patrick's Point, and a portion of the rim trail in the vicinity of the campfire circle.
- The trails will be for pedestrian use only. Due to the intensively developed park, equestrian use cannot be allowed.

The Patrick's Point State Park Plan is available at: www.parks.ca.gov/?page_id=24361

California State Parks Trails Handbook

The Department's Trails Handbook serves as the guideline for trail design, construction, survey, operations and maintenance standards. This handbook is widely used as a reference guide for recreational trail construction.

Reaching the decision to build a new trail, implementing significant modifications to an existing trail, or revising the allowed uses on an existing trail requires both staff specialist review and public input. While a new trail, a

major trail modification, or a change in designated trail use can be implemented on a single trail basis, park-wide and regional trail system planning remains the preferred and the most effective avenue for identifying and establishing interrelated recreational trail corridors, thus mitigating resource impacts and reducing construction and maintenance costs.

Currently there is no edition of this handbook published online. To request information on obtaining a copy of the handbook, contact the California State Parks Archives at (916) 653-6519.

Caltrans Highway Design Manual

The Caltrans Highway Design Manual is used by Caltrans staff and non-Caltrans project managers and planners proposing designs for projects within the Caltrans right-of-way. The design standards cover a wide array of design focus areas including drainage, pavement, and basic design policies amongst others. Chapter 1000 specifically focuses on bikeway planning and design. The Hammond Trail is one example of a portion of the CCT that was created with guidance from this design manual. Any trail designated to encroach into or travel within Caltrans right-of-way shall be designed per Chapter 1000 of the Caltrans Highway Design Manual.

To review information from all chapters of the design manual please see the entire document online at: www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm

Regional Design Standards

Humboldt Bay Trails Feasibility Study (2001)

As of the publishing date of this report, state guidelines or standards for multi-use trails were not available. To assist local trail planners, regulatory and management agencies in trail planning, general trail development standards and concepts are provided in this study. A primary consideration should be anticipated trail use, as trails designed to the minimum requirement for pedestrians may not be adequate, and may be hazardous for bicyclists and skaters.

Single-corridor multi-use trails:

- Fourteen feet wide, including ten to twelve feet of hard surface and two to four feet of soft surface for trail users who do not need or want a paved surface
- A solid base that prevents future degradation of the surface and reduces the need for long-term maintenance
- A gently crowned or outsloped surface that provides the appropriate level of drainage for the site and the surfacing type without causing trail use difficulties
- Proper drainage to ensure long-term stability of the trail surface and minimized habitat degradation
- Enough setback from fences or other structures nearby to avoid creation of a ‘trail tunnel’
- Eight and one-half feet (min.) from the centerline of an active rail line on a straightaway, nine and one-half (min.) feet on a curve

Development of more than one trail in a given corridor (such as a paved trail near an unpaved path) should be considered if sufficient width exists. Multiple trails should be signed to indicate appropriate uses. Advantages of multiple trails include:

- Conflict reduction among user groups by separation of equestrians and hikers from in-line skaters or road cyclists
- Improved management of future trail congestion
- Improved user experience
- Increased aesthetic appeal

Bridges and boardwalks are recommended to be:

- Ten feet (min.) wide and at least as wide as the adjacent trail path
- Wide enough to accommodate future projected trail traffic
- Made of corrosion-resistant materials for longevity
- Consider low-impact “pin” foundations

Equestrian trails should have:

- Three to four feet clearance width from the trail centerline
- Ten feet of overhead clearance at all times
- Truck and horse trailer accommodations in the parking lot
- Hitching facilities
- Water troughs

Other design considerations:

- Outboarding or crowning of the trail surface for drainage
- Keep the trail surface clear of standing water
- Fencing set-back as far as possible from the trail and as short as possible
- Fencing material should be aesthetically appealing and function
- Fencing materials should fit the surrounding environment
- Trail routes should follow mild bends and turns to reduce the “straight” road or highway effect
- Landscaping materials should include native species and no invasive species
- Benches, nature observation stations or blinds, and bike racks are recommended

Americans with Disabilities Act Standards for Accessible Design (ADAAG)

Planners and designers should adhere to the spirit of full accessibility in design to meet the needs of a broad section of the population, including families using strollers, the elderly, children, and where appropriate, in-line skaters and skateboarders.

www.nrsrcaa.org/baytrails/

Humboldt Bay Trails Feasibility Study: Eureka to Arcata (2007)

Multi-use trail standards:

- Width: eight feet (minimum) but ten feet wherever possible
- Shoulder width: two feet minimum
- Minimum setback from edge of highway to edge of tread: five feet without a barrier, two feet with barrier
- Minimum setback from railroad track centerline to obstructions or edge of trail: eight and one-half feet
- Typical setback from edge of tread to obstructions and buildings: three feet
- In Rail-with-Trail corridors, fencing to be installed eight and one-half feet (minimum) from the centerline of an active rail line on a straightaway, nine and one-half (minimum) feet on a curve and three feet from the edge of the trail tread. Five foot fencing breaks should be installed every 500 feet. Fencing height should range between thirty-six and forty-eight inches, with forty-two inches standard.

The Humboldt Bay Interpretive Signing Program (2003)

This program document is a complete guide to educational and access signage around Humboldt Bay. Both design elements and precursors to establishing appropriate designs are discussed. Design elements include language and theme choices, text and graphic layout, working with templates; sign panel material alternatives, sign base and kiosk structures, and local templates. The complete manual is available at:

www.nrsrcaa.org/interp/manual/index.htm

Humboldt County Bicycle Facilities Planning Project (1997)

The study describes bikeway design options for Class I, II, and III facilities and also includes plan views for Class II bike lanes. The study also details Rail-with-Trails standards and maintenance considerations.

Humboldt County Corridor Preservation Report (2010)

This report contains a collection of standard designs for a variety of corridor types in Humboldt County. The report also contains street network design standards. The design standards contained within this document are largely focused on roadway and associated pedestrian travelway facility designs. Design standards included in this document are as follows:

- Principal/arterial 4-lane street cross section
- Minor arterial 4-lane street cross section
- Major collector 4-lane street cross section
- Major collector 2-lane street cross section
- Minor collector 2-lane street cross section
- Local subdivision street cross section
- Local rural subdivision cross section

- Suburban conventional hierarchical network
- Traditional urban connected network
- Traditional and conventional road network designs
- Road thoroughfare
- Right-of-way allocation to pedestrian facilities
- Adapting rural roadways to landform features

For more information or to review the specific standards outlined above please visit the HCAOG website at: www.hcaog.net/

Humboldt County General Plan Update (2008)

Land Use Element: UL-S6 Landscaping Standards

Landscaping shall be required for new development which creates five (5) or more new parking spaces. The landscaping policies shall be accomplished by the submittal of a landscaping plan, which shall include the information described below.

- The landscape plan shall show all existing trees on the property, and indicate those planned to be removed, and those that are to be preserved. It shall show the location of lawn areas, ground cover areas, shrub masses, and new trees to be planted. The plan shall include the use of native and fire resistant species where feasible.
- Not more than twenty-five percent of the landscaped area shall be covered by non-living materials (e.g., rock, pavers, bark, etc.)
- The landscape plan shall include measures for protection of topsoil when developing a property for construction.
- The landscape plan shall include a maintenance plan which specifies the person or agency responsible for maintenance. The maintenance plan shall address pruning, weeding, cleaning, fertilization and watering. Whenever necessary, planting shall be replaced with other plant materials to ensure continued compliance with the landscaping requirements. All screening shall be in sound functional condition, and whenever necessary, repaired and replaced.

Circulation Element

C-P27. Right-of-Way Design Standards. Right-of-way design standards should incorporate specifications for bicycles, pedestrians, public transit facilities, and buffers.

C-P28. Landscape Buffer Strips. Landscape buffer strips shall be used, where feasible, to segregate pedestrian walkways from arterial and collector roadways.

C-P29. Removal of Obstacles in Pathways. New pathways and sidewalks shall be free of obstacles such as utility poles and mailboxes. Where obstacles are unavoidable on existing sidewalks or pathways, they shall be widened or otherwise designed to provide the least amount of obstruction to users.

C-P31. Design Standards for All Pathways. Published design standards, such as the Caltrans Highway Design Manual or equivalent, shall be used by the County Public Works Department for the design and construction of pedestrian and bicycle paths. All new hard surfaced walkways shall be wheelchair accessible. Existing hard

surfaced walkways should be improved to be wheelchair accessible when funding is available or when development projects occur on adjacent parcels.

C-S8. Pedestrian and Bicycle System. A Board-adopted Pedestrian and Bicycle System Plan consistent with the Regional Transportation Plan shall identify trails and routes considered a part of county-maintained circulation system. Development projects proposed on lands that include a county-maintained trail or route may be required to dedicate easements or make improvements if an individualized determination is made that the dedication is related both in nature and extent and is roughly proportional to the impact of the proposed development consistent with standards specified in Title III—Land Use and Development Division 2 Subdivision Regulations.

C-S9. Prioritization of Pedestrian and Bicycle Facilities and Routes. Objective criteria shall be used to prioritize construction of pedestrian and bicycle facilities and routes. Criteria shall be developed to reflect consideration of:

- Providing safe and continuous connections between:
 - Neighborhoods and public schools
 - Residential areas and workplaces
 - Transit stops and public facilities
 - Adjacent open spaces or recreation areas
- Reductions in vehicle miles traveled
- Community demand and public interest

C-S10. Equestrian Horse Trails. The Federal Highway Administration, “Equestrian Design Guidebook for Trails,” or its equivalent, shall be used as a guide for the analysis and design of equestrian trails.

Air Quality Element

AQ-S4. Preservation and Replacement of On-site Trees. Discretionary review projects which remove more than fifty trees of greater than thirty inch circumference measured at four and one-half feet height shall re-plant replacement trees on-site or provide offsetting carbon mitigations.

The Humboldt County General Plan Update online address is: co.humboldt.ca.us/gpu/

Humboldt County Association of Governments (HCAOG) Regional Trails Master Plan (2010)

Chapter 6 of this planning document includes design standards for a variety of natural and paved surface trails, bike lanes and routes, trails on or adjacent to rail, ADA accessibility including trail design and amenities, crossings at a variety of intersection types, drainage and erosion control, trail support facilities and signage, trail amenities, fencing, and user conflict reduction. While all standards in Chapter 6 may be applicable to existing or future proposed trail segments in Humboldt County, they are general recommended designs drawn from within California and from out of state.

For more information on these design standards and other parts of the plan please see the complete plan online at: www.hcaog.net/

Humboldt County Trails Master Plan (1978)

Objective of the plans include the following design guidelines:

- Adopt trail designs which minimize trail maintenance
- Provide a variety of trail experiences by locating trails of varying lengths and difficulty through diverse terrain, scenery, and points of attraction to draw users and maintain their interest
- Blend trails into the natural environment with as little environmental disruption as possible
- Provide trees and other available landscaping along equestrian trails located adjacent to roadways to serve as an partial barrier between trail and vehicle lanes
- Provide staging areas where suitable for equestrian and hiker groups
- Construct trails according to fundamental state guidelines to ensure user safety and basic uniformity with trails developed by other agencies statewide
- Construct bicycle shoulders along designated bicycle routes as general road improvements are being made, particularly where grade and/or sight distance limitations impede safe route use
- Orient bikeway development to the improvement of on-street (Class II-III) bicycling conditions rather than off-street (Class I and IV) routes

The Trails Master Plan encourages trail support facilities, i.e. horse hitching rails, drinking water, public telephones, benches and picnic tables, air for bicycle tires and parking where existing public parking is not available.

The Humboldt County Trails Plan can be found here:

www.humboldt.edu/~nvk2/resources/hctp/sec1/sect1.shtml

North Coast Railroad Authority

The North Coast Railroad Authority (NCRA) has developed trail project guidelines to ensure uniform and consistent standards are applied to the design, construction, safety, operations and maintenance of trails within the Northwestern Pacific Railroad Company's (NWP) right-of-way. The guidelines outline the minimum standards and general requirements to place a trail in the NWP right-of-way. It is important to note that the NCRA has exclusive authority to approve, deny, or approve with conditions, any proposed projects.

Design Standards

In general, the Caltrans and MUTCD design standards shall be followed to the greatest extent practicable. Minor deviations may be permitted by NCRA. Major deviations that are consistent with the overall intent of the guidelines may be granted by the NCRA. The design standards reference the terms "Public Agency" and "Member Agencies" in several instances. Preceding specific design standards, the two terms are defined.

Public Agency is defined as: the federal government and any agencies, departments or subdivisions thereof; the State of California; and any county, city, city and county district, public authority, joint powers agency, municipal corporation, or any other political subdivision or public corporation therein, requesting and sponsoring a Rails-with-Trails project.

Member Agencies are the NCRA and/or Sonoma-Marín Area Rail Transit District (SMART) as the property or easement owner.

At-grade crossings

- If adverse impacts are anticipated at at-grade crossings, mitigation shall be required.
- The Rails-with-Trails (RWT) design shall acknowledge any future rail and highway improvements; and safety requirements, including but not limited to, turning radii for design vehicles, preemption timing, street profiles and railroad and traffic signals at grade crossings.
- Rails-with-Trails users shall be routed to existing signalized grade crossings. A Public Agency shall obtain approval from the Member Agencies and from the California Public Utilities Commission (CPUC) prior to the construction of any new grade crossing.
- The Public Agency shall work with the designated Member Agency and regulatory agency to pay for and not hamper or preclude the installation of such improvements and requirements.

Clearances

- Best practices from the most recent safety studies shall be incorporated into the design.
- The RWT should be located as far from the tracks as possible, with the setback of the trail edge as far from rail track centerline as practicable.
- Where the minimum setback cannot be met, additional safety features including barrier fencing shall be incorporated where pinch points create a safety issue.

Trail Surface

- The RWT path surface and bridges shall be designed and constructed to accommodate heavy railroad trucks and equipment if no other access is available for emergency vehicles.

Utilities, Ingress and Egress

- Rail facilities shall be represented on RWT plans with efforts made to avoid relocation of existing and planned rail elements.
- Written approval of design work shall be obtained from all appropriate utility companies before commencement of construction work.
- The Public Agency shall notify the appropriate regional notification center prior to any excavation.
- The Public Agency and/or its contractors will be subject to FRA Regulations regarding Roadway Worker and Bridge Worker Protection.

Landscaping, Fencing and Lighting

- The project landscaping shall meet all requirements specified by the Member Agencies.
- Trail designs and barriers should incorporate best practices from the most current safety studies available.
- A three-rail split-rail fence, in combination with landscaping which can serve both as a visual and physical barrier, may be used in a rural or environmentally sensitive areas.
- Fence and/or barrier designs will be reviewed and approved by NCRA.

- Public Agency shall provide lighting for the RWT if required by local, state or federal guidelines, rules or regulations, or by the Member Agencies.

Drainage

- The Public Agency, at its sole cost and expense, shall provide and maintain suitable facilities for draining the RWT project area and shall not permit storm and irrigation water to flow or collect upon the NWP Line right-of-way.

Access

- The Member Agencies and utility companies must be able to readily access, inspect, repair and maintain their facilities from existing roadways and RWT's projects.
- Motorized vehicles (excluding emergency and maintenance vehicles) and animals shall be prohibited from the RWT unless approved by Member Agencies.
- RWT's shall be subject to and subordinate to the rights of all current and future tenants and licensees of the Member Agencies.

Construction

The Public Agency shall comply with all construction rules and regulations that are promulgated by Member Agencies. Further, the Public Agency shall not allow any parties to cause or permit any hazardous materials to be brought upon, stored, used, generated, or treated on or about the NWP Line right-of-way.

Maintenance

The Public Agency shall maintain the Rails-with-Trails project and associated features to the satisfaction of the Member Agency. In addition:

- The Public Agency shall notify the designated Member Agency five (5) working days in advance of any construction or maintenance activity that will occur within the NWP Line right-of-way.
- Warning signs shall be prominently displayed and regularly maintained.

Municipal and Community Design Standards

City of Arcata

Arcata General Plan: 2020 (2010), Design and Historical Preservation Element

Policy D-2 Downtown (Central – Commercial) Design, Streetscape Design:

- Increase the width of sidewalks
- Demarcate pedestrian crosswalks with pavement marking and special paving materials and colors
- Provide or improve bike lanes, where appropriate
- Incorporate street trees in appropriate locations
- Use special paving materials or patterns for sidewalks at key locations or intersections

- Provide landscape screening between parking lots and the street
- Provide street and parking lot lighting that is adequate for safety but that is not overly bright
- Establish a uniform lighting fixture and post (or pole) design for streetlights
- Establish a uniform design for various items of “street furniture,” such as benches, trash receptacles, water fountains, etc.
- Require undergrounding of utilities and elimination of poles and overhead wires.

Arcata Parks and Recreation Plan (1994, update pending)

Connecting parks to key destinations via multi-use trails is supported by the Parks and Recreations Master Plan. Multi-purpose trail needs listed in the plan are:

- Trail development that connects parks and natural area with business, commercial, industrial and residential sections of town.
- In new linear park corridors, consider pairing hard-surfaced multi-purpose trails with soft-surfaced jogging or dog-walking trails. Also consider adding par course equipment (no impact or low impact fitness stations) to add to the trail’s recreation potential.

Eureka Trails Committee Waterfront Trail and Promenade Recommendations (2005)

Design specifications have been recommended for the Waterfront Trail and Promenade segment of the California Coastal Trail to reflect the local characteristics and flavor. Creative structures, materials and colors are encouraged when considering amenities. Standards are delineated by facility type: Multiple-Use Path or Trail, Promenade and Boardwalk.

Multiple-Use Paths are separate from roadways in less urbanized areas of the waterfront such as Eureka Slough, Inner Reach and South Waterfront trail segments.

Standard minimum trail width specifications:

- Sixteen feet (min.) total clearance, including a twelve foot surfaced pathway and two foot (min.) shoulder on each side.
- One foot (min.) clearance between shoulder edge and stationary objects.

Surface material options:

- Medium: Compacted gravel and native surface (like the existing Elk River Wildlife Sanctuary trail).
- Hard: Paved surface. Options include asphalt, concrete, or alternative materials such as a natural-looking epoxy resin and gravel surface equivalent to the hardness of asphalt
- Pervious: Efforts should be made to develop permeable trail surfaces to reduce stormwater management challenges and impermeability of developed areas.

Trailheads with parking, signage, lighting, benches, viewing areas, trash/recycling receptacles, landscaping and restrooms are recommended trail support facilities.

Promenades are intended to be part of the streetscape in urban areas, such as Old Town and Working Waterfronts. Bicyclists would be accommodated separately with on-street bike lanes or a bicycle boulevard.

A hard promenade surface is recommended with widths that vary according to amenities and context. Recommended widths are:

- Twelve feet (min.) hard surface.
- Sixteen feet (min.) if landscaping or street furniture is included.
- Twenty feet (min.) in areas of amenity ‘hubs’ (viewing areas, signage, benches and landscaping).

Creative and attractive surface design is encouraged. Surface material options are limited to concrete or otherwise pervious hard surface.

Promenade amenities are to be consistent with an urban streetscape, such as lighting, benches, street trees, distinctive route/street signage, landscaping and trash/recycling receptacles.

Boardwalks are intended to primarily provide access adjacent to, or across, areas of sensitive or aquatic habitat. Surface materials can be wood, composite structure or concrete. Recommended widths are:

- Fourteen feet (min.), but preferably wider since boardwalks with guardrails feel more confining than trails.
- Regular spacing of viewing “pull-outs” recommended.

Amenities recommended are “pull-outs” with benches and interpretive panels and lighting.

Art is an important component of Eureka’s history and culture. Creative design applied to fixtures and furnishings, pavement patterns, murals and sculpture is encouraged in the Waterfront Trail and Promenade project. The designs should be context sensitive, for example, prominent urban and classic artistic elements maybe more appropriate in Old Town than in Elk River Wildlife Sanctuary.

The full report can be found at:

www.naturalresourcecesservices.org/assets/files/Documents/EurWaterTrail/Eureka%20Trails%20Committee%20Waterfront%20Trail%20and%20Promenade.pdf

City of Trinidad Trails Plan, Administrative Review Draft (2001)

The City, as well as state and county parks, have developed ordinances restricting certain activities. Some of the trails are adjacent to residences and therefore the city requests that users be considerate of those adjacent property owners.

Currently brass-like plaques attached to low rocks identify trailheads to several city trails. The designs for two additional types of signs are proposed to identify trails in an unobtrusive, uniform, simple manner.

- Primary trail marker – identifies the beginning of trails and additional information
- Trail marker - identifies when a trail turns a corner, connects to street and side pedestrian access or where sections of trails might otherwise be missed

Benches and bike racks should be part of a trails plan. More specific information on trail regulations is available at City Hall.

Hammond Coastal Trail Extension Analysis: From Trinidad to Fortuna (1997)

This report on future planning and design of the Hammond Trail discusses general design standards and considerations for trail segments between Trinidad and Fortuna. The following is a summary of general design standards and considerations:

- Where the trail will be designed as a Class I bike path, refer to the Caltrans Highway Design Manual
- When design decisions cannot meet Class I standards, the trail should be designed to maintain the future possibility of upgrading to those standards
- Multiple use routes should include an eight foot paved wide portion of the trail for cyclists and an additional four foot wide unhardened portion of trail for pedestrians and equestrians
- Make sure to look at travel continuity when considering combining Class I, II, and III facilities
- Find a balance between cost-effective design standards, partnering agency requirements, and designs that minimize the amount of ongoing maintenance required of the county
- Use appropriate fencing and screening to keep users on the trail
- Include trail improvements that blend with and enhance the natural environment
- Avoid cost-prohibitive routes

Additional general design considerations for specific locations considered within the plan may be reviewed by accessing the original document online at: naturalresourceservices.org/HammondTrail.html

Hammond Coastal Trail Extension, Next Steps (2008)

Class I adjacent to roadway bikeway standards and guidelines for typical gate installation.

Hammond Coastal Trail South Implementation Strategy Report (2005)

This report recommends Class I standards where feasible, which include a paved multipurpose way with adjacent unpaved, soft shoulders. The report also touches on appropriate design standards for roadways with Class III bike routes.

Type Selection Study for the Hammond Trail Bridge over the Mad River

The Humboldt County Department of Public Works contracted CH2M HILL to perform a type selection study for the replacement of the Hammond Bridge. CH2M HILL recommended a post-tensioned, cast-in-place box girder. They specifically recommend a three span structure because it minimizes the obstructions in the water and is considered more attractive. The document covers everything from geotechnical considerations to economics.

Mad River Bluffs (MRB) Background Description and Management Plan (2003)

Trail Standards

Trail development standards were developed with the assistance of Johnny Caulkins of the California Conservation Corps and Steve Fischer of the California Department of Parks and Recreation. All recommendations within the plan are given on a site-specific basis taking into consideration soils, vegetation, volume of use, and existence of water on or around the trail.

Trail Width

The main east/west trail should be widened to a minimum width of five feet to accommodate two trail users walking side by side.

Trail Surfacing

The trail surface of the main east/west trail should be hardened to provide handicap access. Asphalt and pavement are not recommended due to their non-natural appearance. Rock base used on trails is desired to have coloration similar to the local soils. Resin pavement is the recommended trail surface hardener due to its ease of application and freedom from petrochemicals. Resin pavement complies with ADA trail standards for a hardened trail surface. For more information on resin pavement see page seventy two of the MRB plan.

Trail Stairs

A cable ladder and wooden steps, similar to those found at Houda Point, would be used at Northern Bluff Trail #2 to assist users at this coastal access point. The steps would be filled with rock. Interlocking trail steps are also recommended in the plan. For detailed drawings of the stair types please see page seventy seven of the MRB plan.

Bridges and Other Crossing Structures

Along the main north/south forest trail, recommendations for improving the trail through a low wet area on the existing trail corridor include a short puncheon bridge and a trail reroute to avoid continued use of the area.

Bank Stabilization

Two types of walls are proposed for bank stabilization of the Northern Bluff Trail #2. One option is the Wooden Wall (including full crib steps) with requirements of being five feet thick with gravel fill, have a fourteen inch landing on each step, and be free-standing (requiring no excavation and not impacting the existing bank). The second option is the Cellular Confinement Wall (also with full crib steps) which is described as a honeycomb plastic material filled with rock or gravel.

Trail Closures

A buck-and-rail fence is recommended to block access to a decommissioned trail proposed for Southern Bluff Trail #2.

Trail Facilities Standards

The plan recommends a variety of standards for various trail-related facilities including park benches, dog waste stations, and picnic areas. Recommendations for these specific facilities were based on public demand. Cost estimates are included for various Dogi Pot and bench designs.

Signage

The design of signage at the MRB site will be as consistent as possible with the signage designs found at Hiller Park. Additional ideas for signage design were taken from the “Humboldt Bay Interpretive Signage Program,” work by other land trusts, and the LTA “Standards and Practices Guidebook.” Wayside panels will be weather- and vandalism-resistant and alternatives to metal were being investigated for the sign structure. Main kiosks should be pitched roof structures holding Plexiglas that open to allow changing of information. One-sided signs should mimic the rustic square shape of the MCSD sign erected along the Hiller Loop Trail.

For design standards outlined for specific sections of the MCSD trail network and other information pertaining to the plan please see the plan online at: www.naturalresourcecesservices.org/mrbb.html

Highway 101 Interchange Community Design Fair (2010)

Suggested signage includes a yellow bicycle warning sign and ‘share the road’ or ‘share the road with bicyclists’ placard (*Humboldt County Regional Bicycle Transportation Plan Update*, Humboldt County Association of Governments, 200 Pacific Coast Bike Route Study March 2003).

Orick Community Action Plan (2003)

Design standards are limited to general concepts to preserve and enhance community character. Two sites are identified as priority projects that impact implementation of the California Coastal Trail:

- Improve the US 101 corridor through tree plantings and town beautification
- Improve the levee to ensure the safety of the people of Orick as well as their investments in the community.

Non-profit Design Standards

APBP Bicycle Parking Guidelines

The Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines addresses the selection and placement of appropriate bicycle racks for short-term outdoor parking. The APBP Bicycle Parking Guidelines discuss four major components:

- 1) **The rack element.** The rack element is the part of the bike rack that supports one bicycle. APBP recommends several characteristics for this device. The rack element should support the bicycle by its frame in two places and allow



Bicycle racks present opportunities for unique features which make a trail experience memorable

front-in and back-in parking. Comb, toast, schoolyard and other wheel-bending racks that provide no support for the bicycle frame are not recommended.

- 2) **The rack.** The rack is one or more rack elements joined on any common base or arranged in a regular array and fastened to a common mounting space. The rack should provide easy, independent access. For instance, inverted “U” rack elements mounted in a row should be placed on thirty inch centers. This allows enough room for two bicycles to be secured to each rack element.
- 3) **The rack area.** The rack area is a bicycle parking lot where racks are separated by aisles. The minimum separation between aisles measured from tip to tip of bicycle tires should be forty-eight inches. A wider aisle width is recommended in high traffic areas. Six feet (seventy-two inches) of depth should be allowed for each row of parked bicycles.
- 4) **The rack area site.** The rack area site is the relationship of the rack area to a facility entrance and approach. The best location for a rack area is immediately adjacent to the entrance it serves. Racks should not be placed so that they block the entrance or inhibit pedestrian flow in or out of the building. Racks that are far from the entrance, hard to find, or perceived to be vulnerable to vandalism will not be used by most cyclists.

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Appendix I: Trail Design Standards

The California Coastal Trail system through Humboldt County will require a number of trail types that respond to the context of each dynamic local landscape as well as a variety of trail users. The Coastal Trail will be a “braided” trail system connecting communities and resource lands, while providing opportunities for pedestrians, bicyclists, equestrians and persons with mobility impairments to experience and interact with the coastal landscape. Where the right-of-way is constricted, multiple users may share the same trail corridor and/or the right-of-way with vehicles. In these cases, strategies are recommended to separate uses to reduce user conflicts.

This section presents best practices for trail design guidelines for off-street paths and trails, along with on-street facilities needed to complete the network. The design guidelines are not engineering specifications and are not intended to replace existing applicable mandatory or advisory state and federal standards, nor the exercise of engineering judgment by licensed professionals. In certain cases, some material and recommendations contained herein fall outside the current standards but are of sound principle and have been employed successfully in many communities throughout the United States and abroad. A technical chapter including additional local, regional, state and federal trail design guidelines is included in Appendix H: Design Standard Review.

The State of California requires that all facilities constructed with public funds (federal, state, county, municipal or any political subdivision of the State) be “accessible to and usable by persons with disabilities”. It is important to note that all trails do not have to be accessible to all people, but accessibility is to be considered for new trail construction and reconstruction of trails managed for pedestrian use. Where it is impractical to comply with the technical provisions in the Americans with Disabilities Act (ADA) or Architectural Barriers Act (ABA) requirements, exceptions are allowed. Situations where meeting accessibility standards may not be possible include: harm to significant cultural or natural resources, a significant change in the intended purpose of the trail, requirements of construction methods that are against federal, state or local regulations, or terrain characteristics that prevent compliance. ADA compliance is the responsibility of the permitting agency.

When an entity determines a trail or portion of a trail cannot comply with the accessibility requirements, the basis of the decision must be documented. The documentation is to be permanently maintained with the project records. Additional discussion of accessibility requirements and resources as relate to trails is found within this Appendix.

Standards often refer to a minimum necessary condition needed for safe operation. The minimum standard is typically not the preferred or recommended design but rather represents a configuration that may be used in constricted situations due to site challenges.

The design guidelines are organized into the following sections:

- **Paved Trails.** Paved trails include trails that meet or are proposed to meet the dimensional, geometric and functional standards set forth by the California Department of Transportation (Caltrans), the American Association of State Highway Transportation Officials (AASHTO) and California Manual on Uniform Traffic Control Devices (CAMUTCD). They are paved surface, multipurpose pathways, sidewalks,

bicycle lanes, and bicycle routes that serve a variety of commuter trips, utilitarian trips, and recreational trips.

- Rural Roadways. Rural roadways improved with expanded shoulders, safe crossings, sidewalks and wayfinding elements benefit touring, recreational and commuter cyclists, as well as the occasional pedestrian, while enhancing safety for motor vehicle traffic.
- Natural Surface Trails. Natural surface trails are primarily recreational trails that serve a variety of recreational user groups. They include improved trails, equestrian trails, mountain bike trails and multipurpose trails. Natural surface trails may occasionally serve transportation needs such as school access, commuter use, or local errands. There is no one set of standards for natural surface trails, but there are many resources available for constructing successful trails. California State Parks points to the Federal Highway Administration (FHWA) Equestrian Design Guidebook, the Professional Trailbuilders Association website, the International Mountain Biking Association (IMBA) website and the Rails-To-Trails Conservancy as guides to trail design and construction. In addition, other nationally recognized sources include The U.S. Forest Service's Trail Construction and Maintenance Notebook, Student Conservation Association's Lightly on the Land, and Natural Surface Trails by Design: Physical and Human Essentials of Sustainable, Enjoyable Trails. Natural surface trails do not comply with the Caltrans Highway Design Manual, AASHTO or other applicable standards for non-motorized transportation funding grant programs.
- Beach Corridors and Routes. Beach routes will typically consist of a wide corridor with way-finding elements but no improved trail surface. The path will vary with the rise and fall of the tide. Some sections of a beach route may consist of improved trail segments (natural surface improved paths, ropes, stairs, and ladders) to allow passage up and around obstacles that prevent continuous beach access. Some beach routes can be hazardous at high tides.
- Boardwalks. Some sections of the California Coastal Trail may require special trail design treatments to complete trail connections. Engineered boardwalks are trail surface options that can allow passage through sensitive or otherwise inaccessible areas. Due to their expense, these trail applications should be reserved for sections where alternative alignment options are not available. Although such trails may be more costly, they provide opportunities for landmark destinations.
- Rail Trails. The linear nature of rail corridors offers trail connection opportunities that might not otherwise be available. Railroad companies own rights-of-way that can often accommodate a trail, either alongside an existing railroad line or by use of a railroad corridor that has been rail banked or is otherwise out-of-service. Trails in active rail corridors (rails-with-trails) must be designed to meet both the operational needs of the railway system and road systems, as well as the safety of trail users. Trails developed in converted rail corridors (rails-to-trails) are built to the standards that govern the trail type (i.e., paved multi-use, natural surface, etc.).

National design standards have not been developed for Rails-With-Trails, although standards have been developed from studies conducted by the Federal Highway Administration and the Rails-To-Trails Conservancy. Relevant guidelines have also been published by the Public Utilities Commission, Caltrans (Highway Design Manual), and the North Coast Railroad Authority.

- Universal Trail Design. Accessible trail design is important for both recreational and transportation trails and the standards for accessibility are generally established by the United States Access Board and the U.S. Department of Transportation, the Federal Highway Administration, the Americans with Disabilities Act (ADA) Standards for Accessible Design, and the Recreational Trails Program Guidance¹. In addition to federal transportation facility standards, California State Parks has published accessibility

¹www.fhwa.dot.gov/environment/rectrails/guidance.htm; Website accessed December 18, 2009.

standards for recreational trails. The discussion included in this section introduces the basic concepts of accessible trail design, which provide for the needs of people with varied mobility requirements.

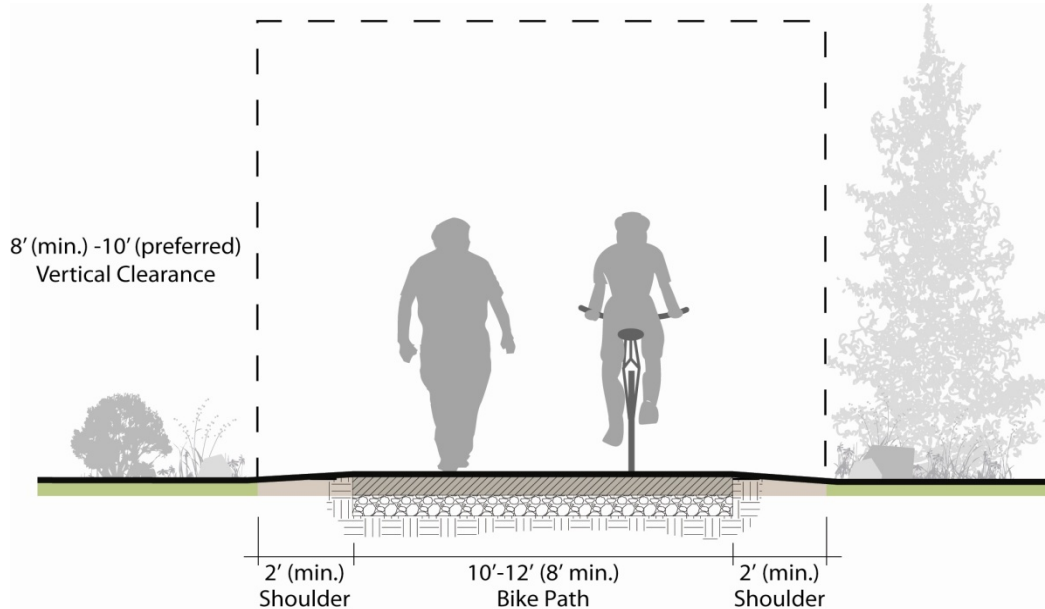
- Crossings. The design of trail crossings of streets, roads, highways, railroads, driveways, creeks and streams must account for a variety of factors and always requires site-specific traffic engineering and safety analysis. The framework presented here introduces the key variables that influence trail crossings.
- Trail Support Facilities. Trail support facilities should provide trail users with the information and accommodations to safely and comfortably enjoy the trail system. Trail support facilities also help educate trail users in, and assist them in complying with, trail use regulations. Trail support facilities include trailheads and access points, signs and amenities such as lighting, benches and bike racks.
- Drainage and Erosion Control. Properly designed trails can maximize drainage, minimize erosion and maintenance needs, and ensure long-term sustainability. This aspect of trail design is critically important to trail and resource managers. This section introduces basic drainage and erosion control concepts that are particularly appropriate for the climate and geography of Humboldt County.

Paved Trails

Class I - Bike Paths

Description
<p>Class I bike paths are facilities with exclusive right-of-way, with cross flows by motorists minimized. Section 890.4 of the Streets and Highways Code describes Class I bike paths as serving "the exclusive use of bicycles and pedestrians." Experience has shown that if significant pedestrian use is anticipated, a completely separate facility for pedestrians is necessary to minimize conflicts. The Caltrans Highway Design Manual supports separate facilities and notes that the shared use of a path by pedestrians and bicycles is undesirable, and wherever possible the two uses should be separated. In practice, however, Class I bike paths are typically shared by bicyclists, pedestrian, skaters, wheelchair users, joggers and other non-motorized users.</p> <p>The anticipated range of users and forecast level of use by different user groups should dictate the design of each specific facility. Higher use, greater variety of use, and higher speed differentials all require greater width, increased separation of uses, and greater attention to regulation and education of bike path users. At a minimum, Class I bike paths require a minimum eight foot wide paved surface and a minimum of two foot wide clear, graded shoulders on both sides. This minimum standard is not appropriate for moderate to high-use segments accommodating mixed uses or high speed bicycle traffic. For moderate to high-use segments, a wider paved surface of ten to twelve feet (minimum) should be considered. In areas where a variety of users are expected, expanded unpaved shoulders should be included where possible. Where a path also doubles as an access route for maintenance or emergency vehicles, a minimum twelve foot wide path is recommended, as narrower paths tend to break up along the edges due to vehicle loads.</p> <p>Class I paths immediately parallel and adjacent to highways must be separated from automobile traffic by a five foot separation or a two foot separation with barrier, per the Caltrans Highway Design Manual. Paths adjacent to roadways can provide critical links in regional trail systems where a local, county or Caltrans public right-of-way is the only viable alignment alternative.</p> <p>All standards set forth in Caltrans Highway Design Manual Chapter 1000 (1003.1) shall be met in order for a Class I bike paths to serve as a transportation facility. In addition, the Manual of Uniform Traffic Control Devices (MUTCD) provides guidance on appropriate signage and controls at trail roadway intersections.</p>

Graphic



This graphic is presented to illustrate classification standards and not meant as design guidelines.

Standards

- Ten to twelve foot paved width (eight foot min.)
- Twelve foot width where path doubles as an access route for maintenance or emergency vehicles
- Two foot minimum required clear graded shoulder width on each side, three feet is preferred
- Eight foot minimum vertical clearance, ten feet is preferred
- 2% cross slope to facilitate drainage
- A grade of 2% or less accommodates the widest range of cyclists and is recommended. A 5% (maximum) grade allowed. Steeper grades can be tolerated for short segments (up to 150 meters or about 500 feet), although design speeds should be increased and path width should allow for additional maneuverability.

Potential Applications

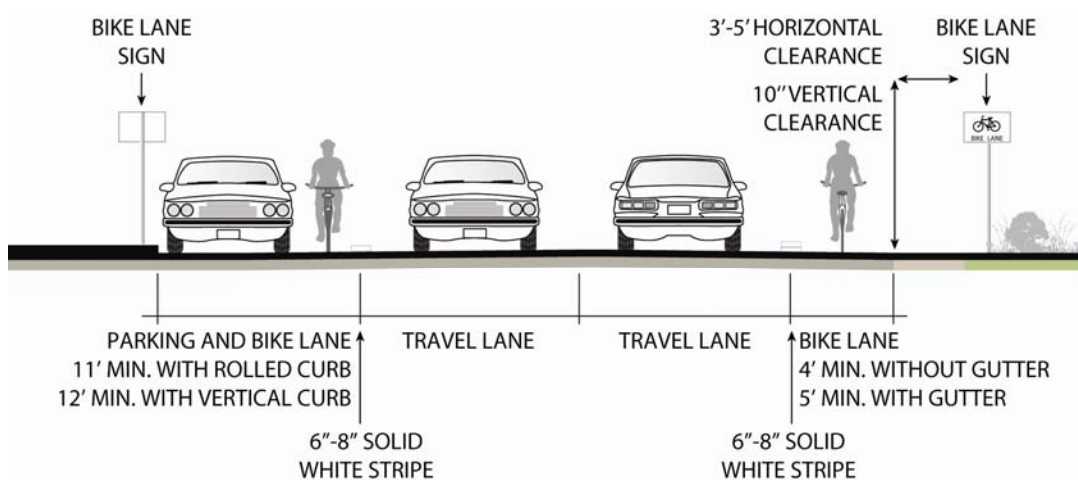
- High use commuter and recreational corridors where accommodation of bicyclists and pedestrians separate from local streets and highways is desirable
- Publicly-owned easements and right-of-ways that connect major community destinations or connect independent communities and may provide a non-motorized commute facility
- Caltrans rights-of-way where separated path is feasible and complementary to the existing State Route transportation function
- Railroad corridors (additional standards apply, see Rail Trails section)

Class II - Bicycle Lanes

Description

Bicycle lanes are defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. Bicycle lanes may be installed on arterial, collector and neighborhood roadways where space allows and subject to locally established minimum travel lane widths. The minimum recommended width for a bicycle lane is five feet. In the context of the California Coastal Trail, bike lanes may serve as some of the urban segments, or facilitate bicycle access to the California Coastal Trail.

Graphic



Standards

- Five foot width is recommended for bike lanes without on-street parking. This width will allow for added separation between bicyclists and vehicles. (Existing Caltrans minimum is four feet, but is not recommended)
- Four foot minimum if no gutter exists, measured from edge of pavement
- Five foot minimum with normal gutter, measured from curb face; or three feet (0.9 m) measured from the gutter pan seam
- Five foot when on-street parking stalls are marked

Potential Applications

- Streets and roads that provide connections to community destinations, e.g. shopping, schools, library, and employment centers

Class III - Bicycle Routes

Description

Bicycle routes can provide continuity in a bicycle network, where bike paths and lanes are not feasible or practical. Bicycle routes share travel lanes with motor vehicles and are typically on roads with low speeds and traffic volumes; however they may be used on higher volume roads with wide outside lanes or with shoulders.

Bicycle routes are identified through route signage using the standard “Bike Route” sign. CAMUTCD allows for an alternative bike route sign to reflect a numerical route and name designation. Supplemental plaques can be used to direct bicyclists to high demand destinations (e.g. “California Coastal Trail,” “To Downtown”). Bicycle routes can also have shared lane pavement markings, also called “sharrows” as exemplified in the photo below. Shared pavement markings alert vehicle drivers to the presence of cyclists on arterials as well as advise bicyclists of the safest portion of the travel lane to ride in.

In the context of the California Coastal Trail, a bike route may serve as some of the urban segments, or facilitate bicycle access to the California Coastal Trail.

Graphics



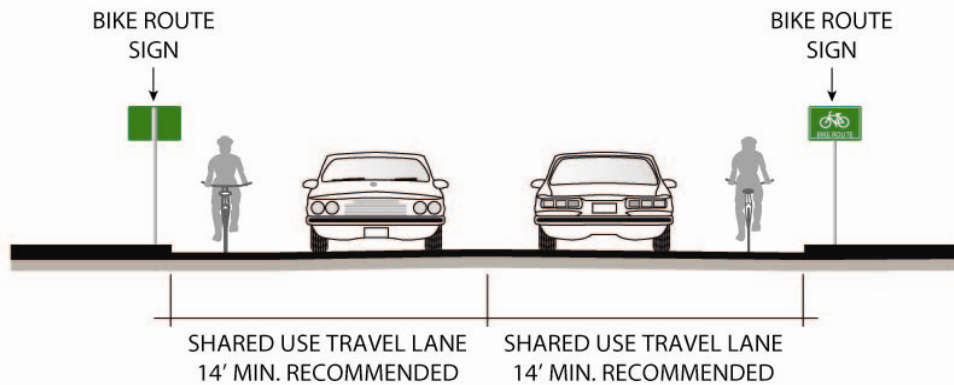
Standard bicycle route sign on left, alternative on right



Supplemental plaques may be used in conjunction with the "Bike Route" sign



Shared lane pavement marking



Standards

- Caltrans does not define a standard travel lane width. However, AASHTO recommends fourteen foot wide travel lanes.
- Bicycle Route Signage installed at decision points along designated bicycle routes and at regular intervals. Intervals should consider the location of the bike route, i.e., longer intervals for regional routes and shorter intervals for local routes.

Potential Applications

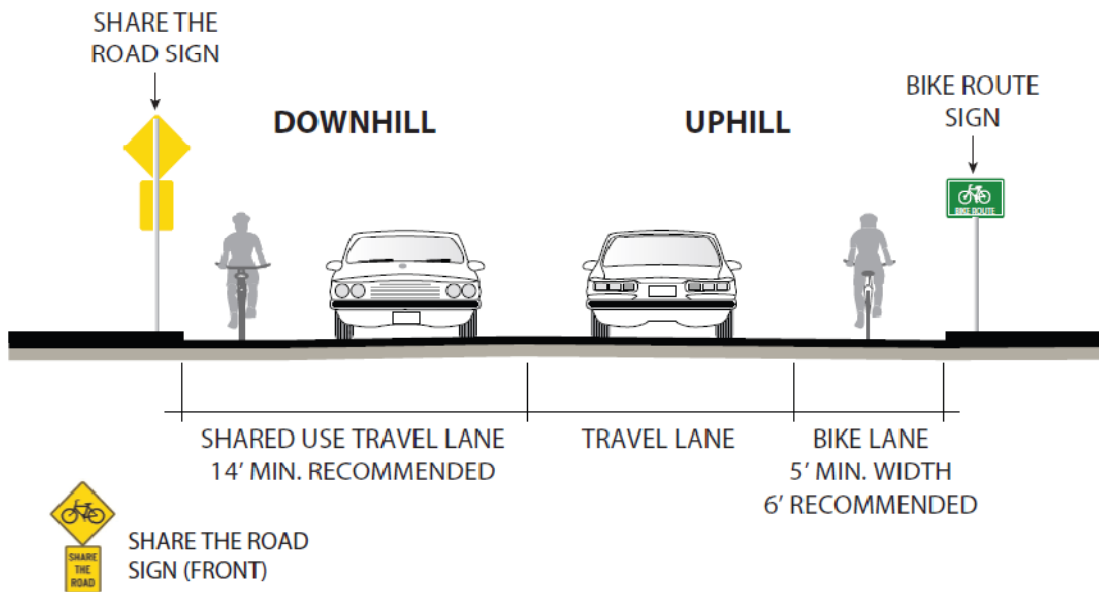
- Local streets without adequate width for bicycle lanes
- Regional roadways frequently used by bicyclists
- Connection of discontinuous bikeway facilities

Class II - Uphill Bicycle Lanes/Class III - Downhill Bicycle Routes

Description

Sections of bicycle lane (Class II) may be applied to steep grades on otherwise shared roadway (Class III) situations. These uphill climbing lanes get slow-moving cyclists out of the travel lane and should be six feet wide to provide extra room for maneuvering. At downhill grades where cyclists will move at speeds approaching those of automobile traffic, bike lanes in the downhill direction are not needed or advised.

Graphic



Standards

- Uphill bike lane should be five feet or six feet wide (six feet is preferable as additional maneuvering room on steep grades can benefit bicyclists).
- Can be combined with Shared Lane Markings for downhill cyclists who can match prevailing traffic speeds.
- Placing the shared-lane marking in the center of the travel lane has advantages of being more visible to motorists and lasting longer since it goes between tire tracks.

Rural Roadways

CCT alignments should be separated from motorized roadways to the maximum extent feasible. In rural areas however, roadways often represent the only corridors which provide connections between community centers. For this reason, bicyclists and pedestrians are allowed on highways within Caltrans District 1. Rural roadways improved with expanded shoulders, safe crossings, sidewalks and wayfinding elements, benefit touring, recreational and commuter cyclists, as well as the occasional pedestrian, while enhancing safety for motor vehicle traffic.

AASHTO Guidance

The 2010 Draft, “AASHTO Guide for the Planning, Design, and Operation of Bicycle Facilities,” makes several recommendations to accommodate bicyclists and pedestrians on rural roadways. Adding or improving paved shoulders on rural roadways with higher speeds or traffic volumes has many safety benefits for motorists, bicyclists and pedestrians. Expanded shoulders provide space: for maintenance operations, to escape potential crashes or for temporary storage of disabled vehicles. They extend the service life of the road by reducing edge deterioration and further improve sight distances in areas with curves and cut sections. Paved shoulders can benefit pedestrians as well by providing a place for them to walk in locations where there is no sidewalk and the current roadside condition is unsuitable for walking.

Roadway retrofits for bicycle facilities are best accomplished as part of repaving or reconstruction projects. On uncurbed cross sections with no vertical obstructions immediately adjacent to the roadway, paved shoulders should be at least four feet (1.2 m) wide to accommodate bicycle travel. Rugged terrain and other physical features however, may impact the amount of horizontal space available for a roadway section. In retrofit situations where minimal right-of-way is available, a minimum width of three feet (0.9 m) of operating space is allowed between the edge line of the vehicle travel lane and the edge of pavement (where there is no curb). Where physical space is limited, additional real estate for shoulders may be gained by restriping roadways to decrease the width of vehicle travel lanes. The AASHTO Draft Guide states the following:

“Where the total width of the outside travel lane is 14 feet (4.3 m), it would be preferable to instead provide a 10-11 foot (3.0 - 3.4 m) travel lane and a 3 - 4 foot (0.9 - 1.2 m) shoulder. Re-striping a 14 foot (4.3 m) travel lane as a 12 foot (3.7 m) lane and a 2 foot (0.6 m) shoulder is not recommended. Since the paved shoulder would not accommodate bicycle operating width, and trying to avoid or repeatedly crossing an edge stripe is uncomfortable, bicyclists would need to ride in the travel lane instead. Even if a bicyclist manages to ride (partly or mostly) on such a narrow paved shoulder, this design may convey a misleading impression of adequate width to a motorist overtaking the bicyclist in the adjacent travel lane, when in fact it would be necessary for the motorist to be driven at least part way into the next lane in order to pass the bicyclist with adequate clearance.”



Signs should be used on rural roadways where non-motorized users are anticipated, to alert motorists that bicyclists may be encountered and that they should be mindful and respectful of them. Options available include the “Share the Road” sign assembly (W11-1 + W16-1P).

The AASHTO Draft Guide further states that rumble strips create a potential hazard for bicyclists and are not recommended to be used on shoulders where cycling is anticipated. If they are to be used, a minimum clear path of four feet from the rumble strip to the outside edge of the paved shoulder should be provided.

Additional Guidance

The Oregon Department of Transportation (ODOT) provides guidance that is considered best practice for providing bicycling and pedestrian facilities on rural roadways. The Oregon Department of Transportation (ODOT) maintains that “*good transportation policies are based on the premise that the public right-of-way is to be shared by all travel modes*” and that well-designed roads accommodate all users. The 1995 Oregon Bicycle and Pedestrian Plan Element of the Oregon Transportation Plan was created to assist ODOT, cities and counties in designing, constructing and maintaining pedestrian and bicycle facilities on state highways. Pedestrian and bicyclist needs in a rural environment can differ from those same users in the urban environment. For example, in rural areas, pedestrian activity may be limited due the distance between destinations. The plan addresses the needs and issues of both urban and rural highway systems.

ODOT’s notable policies for rural roadways include: integrating bicycle and pedestrian facility needs into all planning, design, construction and maintenance activities; and retrofitting existing roadways with wide paved shoulders or bike lanes to accommodate bicyclists, and with sidewalks and safe crossings to accommodate pedestrians. These two strategies, where feasible, are intended to be implemented when modernization or preservation projects occur. Improvements that connect schools, parks, residential areas and other trip generators are given the highest priority, with a pedestrian path considered where warranted. Special consideration is given to widening rural road shoulders near urban areas, to encourage bicycle commuting.

Design Guidelines

The 1995 Oregon Bicycle and Pedestrian Plan, an Element of the Oregon Transportation Plan, includes design guidelines pertinent to bicyclists and pedestrians on rural highways:

- Standard rural highway shoulder width recommendations based on ADT and road types. page 82-84
- Rural roads with shoulders width of 4 feet or greater, and where average traffic volumes of less than 1000 per day, are considered suitable for bicycling. Six foot shoulders are recommended.
- Pavement design, page 84
- Rumble strips, page 91
- Pedestrian facility recommendations for rural areas, page 107
- Sidewalk location where open ditches are present, page 120
- Drawbacks of rural interchange design for pedestrians and bicyclists, page 150
- Signing on rural roads, page 143
- Rural highway construction zones, page 195
- Facility recommendations based on development types (rural, suburbs that have rural qualities, transition areas between rural and urban areas.)

Natural Surface Trails

The successful design, construction and management of natural soft-surface trails are critical to building a trail network that accommodates a wide range of users. The following trail classification guidelines are not a “how-to” for building trails; rather, they offer a framework for management and decision-making to help build the California Coastal Trail in Humboldt County. In addition, this guide establishes standard terms and definitions that can aid communication with planning partners about trail needs, design standards and environmental issues. Table I-1 was created from national “best practices” for designing and constructing natural surface trails.

Table I-1: Natural Surface Classifications Summary

Trail Type	Tread Width	Trail Corridor	Surface	Average Grade	Max Grade*	Outslope	Turn Radius
Hiking	18"-48"	3'-6' (w) 7'-8' (h)	Native soil and rock; compacted	≤ 5%	15-25%	2-5%	3'
Equestrian	1.5'-12'	3.5'-12' (w) 10'-12' (h)	Native soil and rock; compacted	2-10%	5-20%	2-10%	5-10'
Mountain Bike	12"-36"	2'-6' (w) 6'-8' (h)	Native soil and rock; compacted	2-10%	≥15%	5-10%	≥2'
Multipurpose	4'-8'	8'-12' (w) 8'-12' (h)	Native soil or compacted granulated stone	≤ 5%	10%	2-4%	5-10'

* Max grade depends largely on soil type and running distance of slope

Hiking Trails

Description

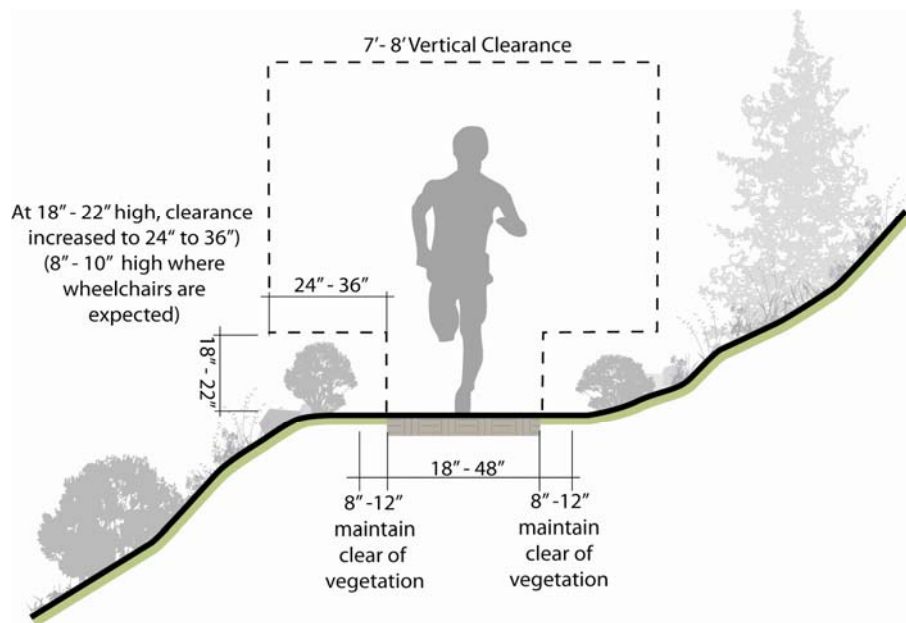
Hiking trails accommodate walking and hiking in a variety of contexts and are generally defined by a compacted natural soil surface, the presence of tread dips, trail structures (i.e. retaining walls, water bars) and bridges, where required. In Humboldt County, trails may be surfaced with crushed fines to improve trail conditions due to climate. Typical trail widths vary from eighteen to forty-eight inches, and vegetation should be maintained clear on both sides of the trail tread for a minimum of twelve to thirty-six inches.

To encourage the natural appearance of the trail, vegetation under eighteen to twenty-two inches in height and eight to twelve inches from the trail edge can remain. Vegetation eighteen to twenty-two inches and above should be cleared to meet a twenty-four to thirty-six inch horizontal clearance minimum (see illustrative graphic below). Where wheelchairs are expected, the height at which the additional clearance should begin is eight to ten inches above the trail surface.

Regulatory, resource protection and user reassurance signs, such as directional and destination signs, should be installed as part of the trail system.

This is the minimum trail standard often incorporated into a regional trails network. This facility type is typically located at local and county parks and in open spaces, undeveloped public rights-of-way such as utility corridors, and in parkland and resource land units with frequent public access, including coastal access.

Graphic



This graphic is presented to illustrate classification standards and not meant as design guidelines.

Standards

- Vegetation cleared outside of trail way
- Trail bridges and boardwalks as needed for resource protection and appropriate access
- Generally native materials are used for trail surface
- Trail tread width may vary from eighteen to forty-eight inches depending on context and use
- Trail clearance should be maintained on both sides of trail tread at twenty-four to thirty-six inches or greater

Potential Applications

- Local parks and open space
- State and federal parks and resource lands
- Public utility corridors and rights-of-way not suited to paved Class I bike paths

Equestrian Trails

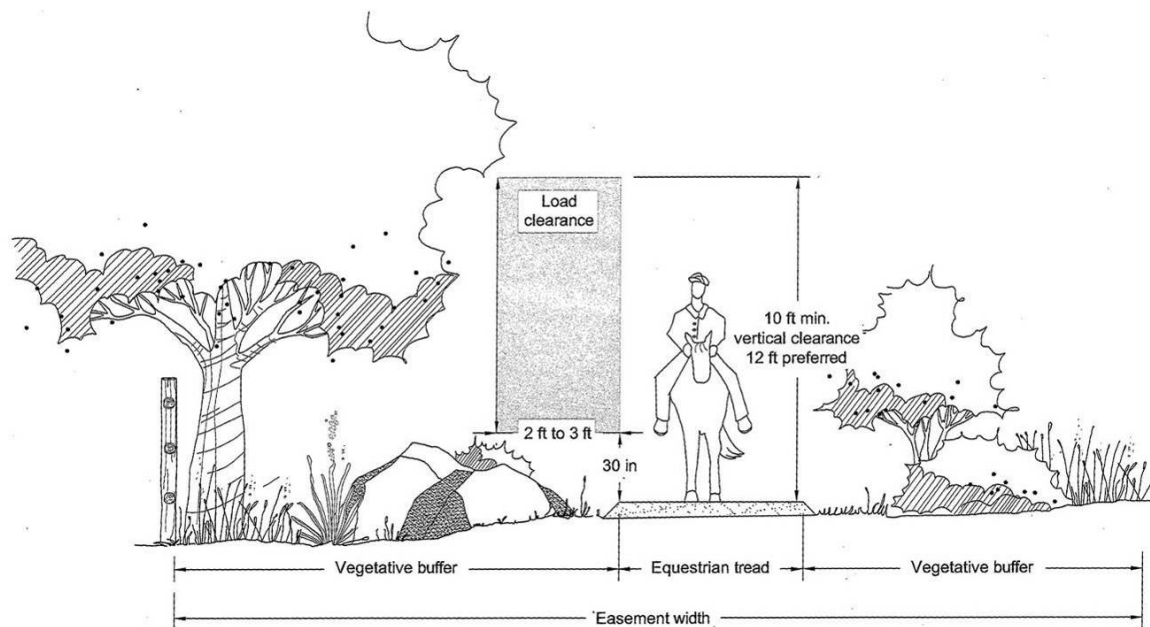
Description

Equestrian trails constructed as a part of the regional trails network should be designed to accommodate a horse and rider comfortably while minimizing the required zone of trail construction and maintenance impact. Regional equestrian trails should provide for local and long-distance trail rides. In all cases for the CCT, these trails will also serve multiple user types.

Basic dimensional requirements include an eighteen to thirty-six inch wide trail tread and appropriate horizontal clearances. Compacted natural soil is typically the preferred trail tread, but surfacing trails with crushed fines is preferred in Humboldt County, due to climate conditions. A narrow eighteen inch trail tread should include a minimal twelve inch vegetation clearance on both sides of the trail, providing clear passage while preserving a backcountry trail ride experience. In high use and developed areas, a minimum tread of seven to eight feet should be provided to allow for riding side by side as well as opportunities for passing when bidirectional movements are expected.

It should be noted that trails developed for equestrians are also comfortable for pedestrians.

Graphic



*This graphic is presented to illustrate classification standards and not meant as design guidelines.
Source: USDA/FHWA, Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds*

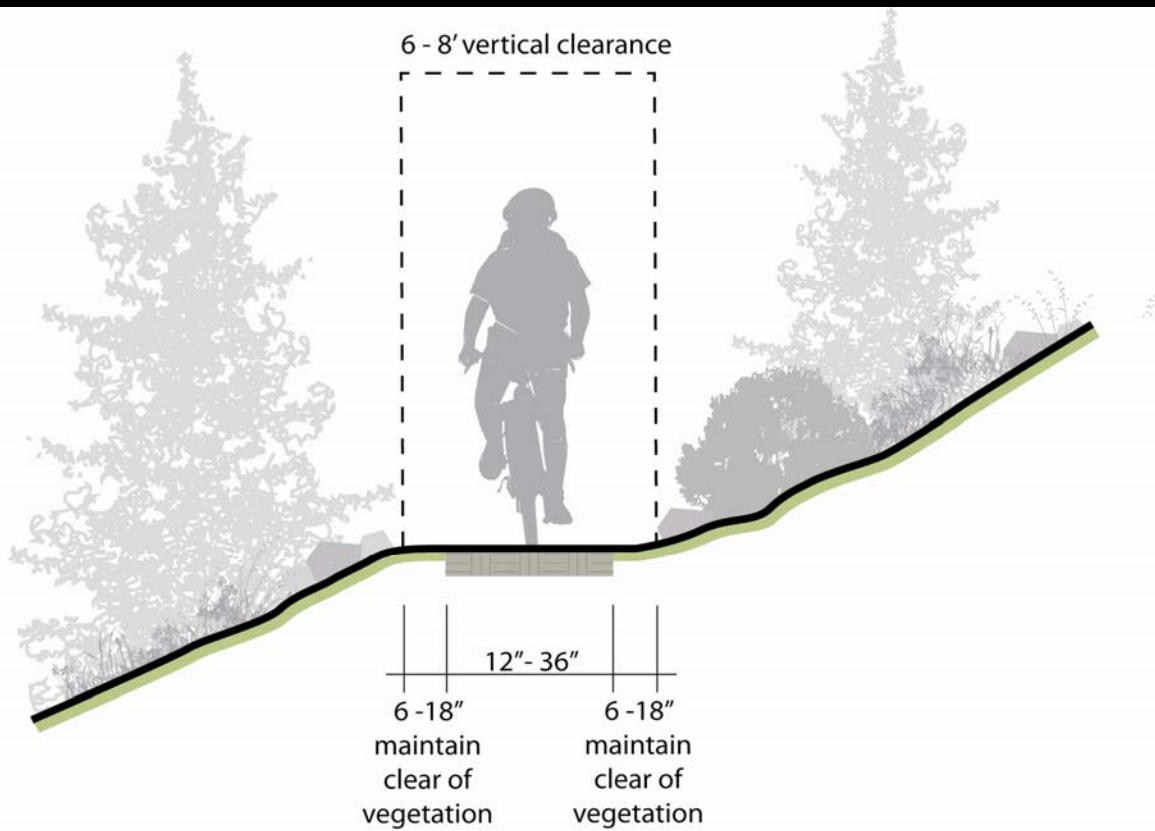
Development Standards						
Level of Development	Tread Width	Clearance Width	Average Grade*	Maximum Grade	Outslope	Turn Radius
Low	1.5'-2'	5.5'-8' (w) 10' (h)	≤ 12%	20% No more than 200'	5-10%	5'-6'
Moderate	3'-6'	9'-12' (w) 10'-12' (h)	≤ 10%	15% No more than 200'	5%	6'-8'
High	8'-12'	14'-18' (w) 12' (h)	≤ 5%	5-8% (800'-1500') 8-10% (500'-800') 10% (≤500')	2-5%	8'-10'
*Target range (over at least 90% of trail) <i>Source: USDA/FHWA, Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds</i>						
Standards						
<ul style="list-style-type: none"> • Vegetation cleared outside of trail way • Limited conflicts with protected natural resource areas • Trail bridges with five foot railings should be designed to accommodate loaded horses • Compacted native materials used for trail surface • Trail tread width may vary from one and a half to twelve feet depending on context and level of use • Trail clearance should be maintained on both sides of trail tread 						
Potential Applications						
<ul style="list-style-type: none"> • Equestrian and equestrian/pedestrian segments of the regional trail network 						

Mountain Bike Trails

Description

Mountain bicyclists have a broad range of riding abilities. This guideline for single track mountain bike-only trails focuses on recreational experience and a range of technical challenge. The International Mountain Bike Association (IMBA) has developed a classification system similar to ski runs, which is indicated by the colored symbols below. These symbols may accompany wayfinding and warning signage to alert bikers of upcoming trail conditions. In addition, mountain bicyclists are typically permitted on shared-use trails (described in the following guideline) and should be aware that they must yield to all other users.

Graphic



This graphic is presented to illustrate classification standards and not meant as design guidelines.

Standards

Skill Level	Tread Width	Surface	Average Grade	Max Grade	Unavoidable Obstacles
Easiest ○	≥ 72"	Hardened or Surfaced	<5%	≤10%	None
Easy ●	≥ 30"	Firm and Stable	≤ 5%	15%	≤ 2"
Moderate ■	≥ 18"	Mostly stable; some variability	≤ 10%	≥15%	≤ 8"
Difficult ◆	≥ 12"	Variable	≤15%	≥15%	≤15"
Extremely ◆◆ Difficult	≥ 6"	Widely variable & unpredictable	≥ 20%	20%	≥15"

Standards

- Tread width varies from twelve to thirty-six inches
- Allowance for passing

- Native materials
- Obstacles occasionally present
- Blockages cleared to define route and protect resources

Potential Applications

- Mountain bike-only segments of the regional trail network
- Topographically varied terrain

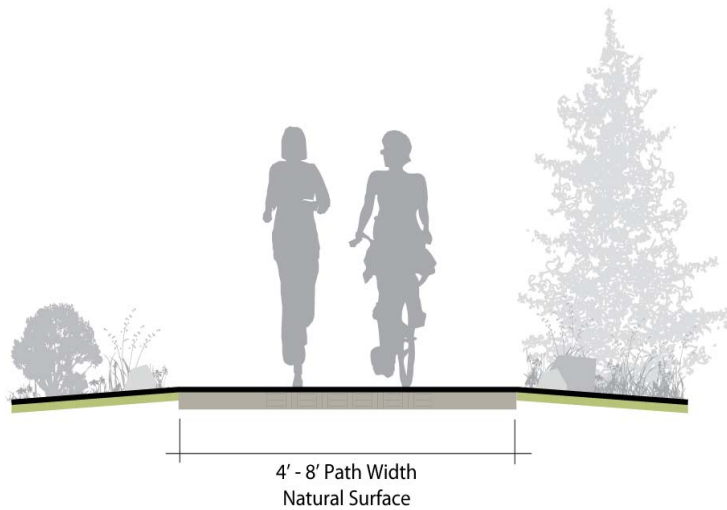
Multipurpose Trails

Description

Unless designated otherwise, all recreation trails are considered multipurpose trails. Multipurpose trails are designed and managed for all types of non-motorized users and are substantially wider than other narrow soft-surface trails described above. Multipurpose trails are wide enough to accommodate the widest range of users among the natural surface trail types presented. As the width of the trail increases, the less technical the trail becomes, but it can also become more accessible to users with a broader range of abilities.

Anticipated levels of use, local public opinion, resource sensitivity and site evaluations should be used to determine whether or not a multipurpose trail is an appropriate solution. These paths, while constructed with native surface materials, provide wide treads and clearances potentially accommodating significant volumes of hikers, equestrians and bicyclists. Regulatory signs should be installed to alert trail users to their limitations and responsibilities for sharing the trail. Where hikers, bikers and equestrians are allowed on the same trail, “Yield to” signage should be installed to notify user rights-of-way.

Graphic



This graphic is presented to illustrate classification standards and not meant as design guidelines.

Standards

- Tread width varies from four to eight feet
- Allowance for passing
- Native materials
- Obstacles occasionally present
- Blockages cleared to define route and protect resources
- Prevailing grade five percent, with limited steeper segments
- Clearances and turning radius to accommodate all uses
- Yield right-of-way signage to encourage awareness of multiple user groups on the trail

Potential Applications

- Local parks and open space
- Low use areas of state and federal parks and resource lands
- Public utility corridors and rights-of-way not suited to paved multi-use pathways
- Not recommended as a high speed transportation facility for cyclists

Beach Routes & Access

Description

Sections of the California Coastal Trail alignments will be along the coastline. Beach routes will typically parallel the ocean and will vary in location and accessibility depending on tide levels and topography. Shoreline trail segments that may not be passable at all times should provide inland alternative routes. Beach routes are typically wide corridors with no improved trail surface. A corridor, as opposed to a defined path, allows trail users navigational flexibility based on the tide. A corridor application is suitable for locations where a defined trail is not practical and would require continuous maintenance.

Trail improvements (natural surface improved paths, ropes, stairs and ladders) allow passage up and around obstacles that prevent continuous beach access.

Way-finding information should be employed to identify the preferred route at strategic locations. Corridor and trail markers and wayfinding amenities include informational signs, blazes and cairns. Trailheads or coastal access points with adequate parking and wayfinding signage are critical amenities to potential users of beach routes.

Centralized information about the hazards of tidal fluctuations should be provided at key points of coastal access. Beach routes are accessible to pedestrians and often equestrians, if beach obstacles do not hinder travel by horse. Beach routes are not accessible to bicyclists.

Graphic



Lost Coast at low tide.

Source: www.blm.gov/ca/st/en/fo/arcata/kingrange/trail_conditions.html

Beach Route Amenities

Graphic



Stair systems can allow for passage around beach obstacles



Rock cairn marker. Source: cairngp.com/images/cairn_web.jpg



*Coastal Trail marker at the top of a stairway
Source: www.coastwalk.org/CCT/cct.htm*



Trail marker on the Lost Coast

Potential Applications

- Trailheads
- Deviation points from the beach due to obstructions or inaccessibility due to tides (i.e. tops and bottoms of stairways or hill scrambles)
- Areas in which a trail is not visibly worn (i.e. rocky ridgelines)
- Crossing of creeks and streams

Boardwalks

Description

The CCT may cross wetlands and other environmentally sensitive habitats for which careful consideration of potential trail development impacts should be taken. Trail development through wetlands should seek to avoid or minimize the filling of wetlands by choosing the least environmentally damaging feasible trail alignment. If wetlands or other sensitive habitat areas are impacted, mitigation measures and best management practices will need to be employed as outlined by CEQA and the Coastal Act to minimize adverse environmental impacts. Boardwalks can minimize impacts to sensitive wetlands and create “showcase” trail segments that allow users to experience riparian or sensitive coastal ecosystems with minimal impact.

Biological conditions may require platforms to be located so as not to shade sensitive resources. Trail treads should allow light to penetrate to vegetation under the trail. Screw piles are recommended for building boardwalks and viewing platforms along the California Coastal Trail. Screw piles are less disruptive to the creek or wetland beds than wooden pier foundations and more environmentally sensitive than using chemically treated lumber. Boardwalk surfacing should resist deformation and user slippage. Boardwalks can be very expensive and should go through an extensive design process so they do not contribute to flooding hazards, are ADA-compliant, and minimize impact to the surrounding environment.

Graphic



Boardwalk through a wetland



Boardwalk through a biologically sensitive area



Boardwalk at Redwood Creek Visitor Center

Rail Trails

Railbanking

In 1983, concerned about the rapid contraction of America's rail network, the U.S. Congress amended the National Trails System Act to create the railbanking program. Railbanking is a method by which rail lines proposed for abandonment may be preserved for future rail use through interim conversion to trail use. Either a public agency or organization may request to railbank a trail by sending the request to the Surface Transportation Board (STB). A statement of willingness to assume financial and legal responsibility must accompany the request.

The Rails-to-Trails Conservancy identifies the following important points regarding railbanking:

1. A railbanking request is not a contract and does not commit the interested party to acquire any property or to accept any liability. It invites negotiation with the railroad company under the umbrella of railbanking.
2. A party filing a Statement of Willingness to Assume Financial Responsibility is not accepting any financial responsibility. It is merely expressing an interest in possibly doing so.
3. The tracks and ties on a railbanked line can be removed. However, bridges and trestles must remain in place, and no permanent structures can be built on the right-of-way.
4. Railbanking can only be requested for a rail line that is still under the authority of the STB. The STB has authority over the corridor until the railroad company files a notice of consummation, which must be filed within one year of the abandonment decision (unless the railroad company requests an extension). If no notice of consummation is filed by the railroad within one year, abandonment authorization lapses. Railbanking requests are due within the period specified in the applicable notice of abandonment. However, late-filed requests will be accepted for good cause so long as the STB retains authority to do so.
5. Some railroad rights-of-way contain easements that revert back to adjacent landowners when abandonment is consummated. However, if a line is railbanked, the corridor is treated as if it had not been abandoned. As a result, the integrity of the corridor is maintained, and any reversions that could break it up into small segments are prevented.
6. Railbanking can be affected through a sale, a donation or a lease of the corridor, the details of which are subject to negotiation with the railroad.
7. A railbanked line is subject to possible future restoration of rail service. The abandoning railroad company maintains the right to apply to the STB to resume rail service on a railbanked corridor



Rail corridors present some of the most scenic opportunities with grades and geometries appealing to a wide range of trail users.

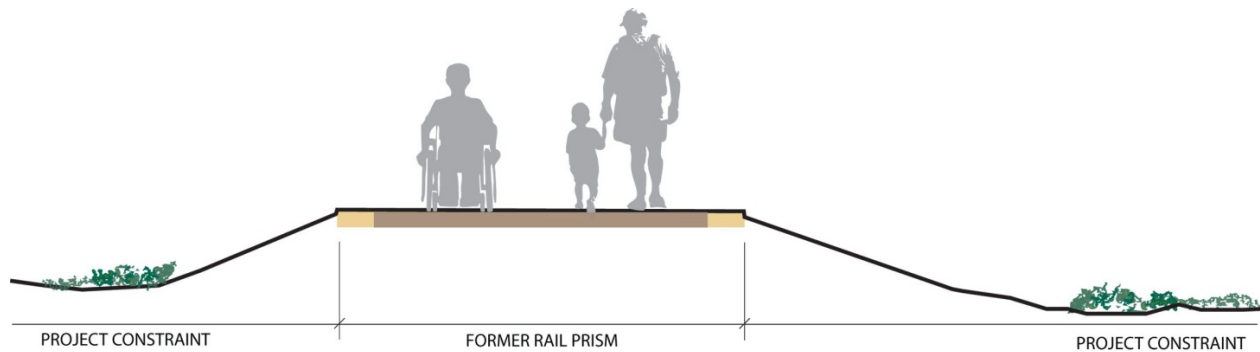
which will then vacate the trail use ordinance. The terms and conditions of a transfer back to rail service must be negotiated with the trail manager.

Rails-To-Trails

Rails-to-trails are former rail corridors which have been converted to trails for public use. Due to the gentle grades and curves required of trains, rail corridors typically have subtle grade changes and geometries appealing to a wide variety of trail users. Rail corridors are typically long in length and if preserved for trail use, present opportunities for significant regional trail systems through some of the country's most beautiful landscapes. Rails-to-trails do not have specific trail design requirements.



A former rail corridor provides recreation and transportation options for a multitude of users.



A rail to trail design via railbanking may be appropriate when rail operations are no longer feasible and physical or environmental constraints are present.

Rails-With-Trails

Description

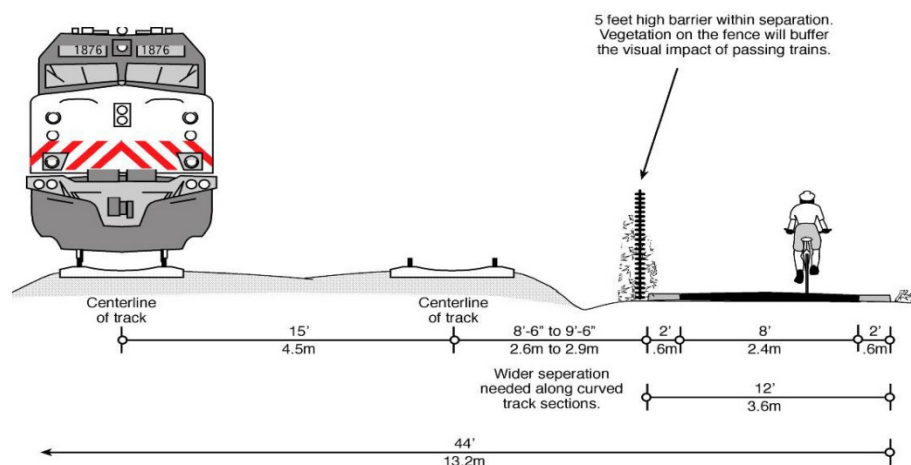
Rails-with-trails (RWT) are trail paths that follow existing and often active rail lines. Despite the many benefits of trails constructed in rail rights-of-way, rails-with-trails also present a range of security and safety issues for trail users that should be addressed through planning and design processes.

National design standards have not been developed for rails-with-trails, although the Federal Railroad Administration (FRA) publishes minimum setback standards for fixed objects next to active railroad tracks, the distance between two active tracks, and adjacent walkways (for railroad switchmen). These published setbacks represent the legal minimum setbacks based on the physical size of the railroad cars and are commonly employed along all railroads and at all public grade crossings. Most Public Utilities Commissions (PUCs), which regulate railroad activities within states, also have specific minimum setbacks for any structures or improvements adjacent to railroads, including any sidewalk or trail that parallels active railroad tracks.

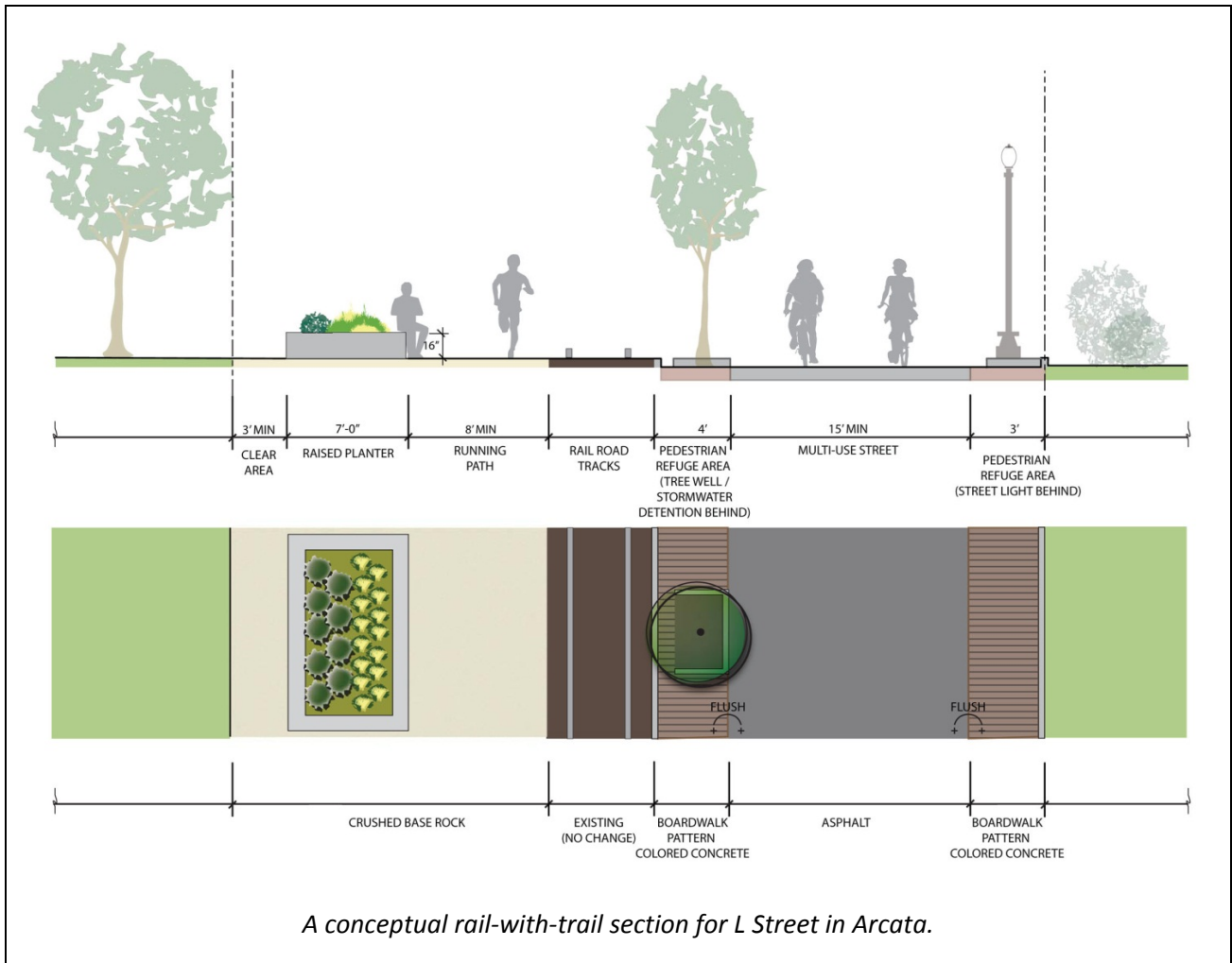
The North Coast Railroad Authority (NCRA) was created in 1989 by the California legislative body through the North Coast Railroad Authority Act. The NCRA has jurisdiction over the existing rail line through Humboldt County. Trails within the NCRA right-of-way must be approved by the NCRA Board of Directors and trail applications are reviewed on a case-by-case basis. The NCRA Board has developed a policy & procedures manual for “Trail Projects on the NWP Line Rights-of-Way: Design, Construction, Safety, Operations, and Maintenance Guidelines,” which was adopted in 2009.

The standards presented below are the result of studies completed by the Federal Highway Administration and Rails-To-Trails Conservancy, along with the PUC and NCRA guidelines. Other useful sources include AASHTO, CAMUTCD and American Disabilities Act Accessibility Guidelines (ADAAG).

Graphic

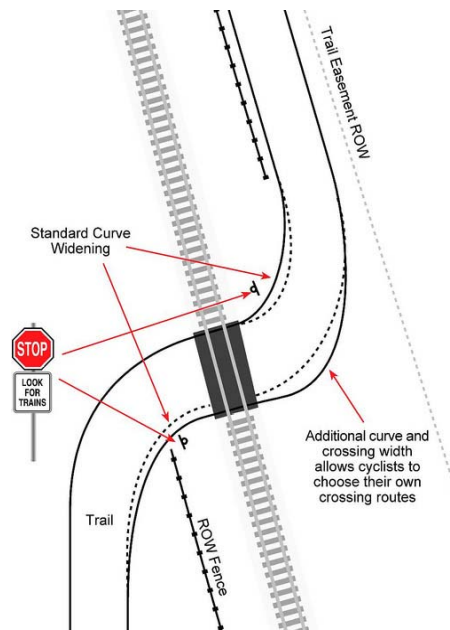


The above graphic shows minimum setbacks as defined by most Public Utility Commissions. Best practices seek to maximize setbacks from rail centerline as much as practicable. NCRA guidelines ask that trails be placed at the outer edges of rail ROW to the greatest extent possible.





A popular RWT showing 8.5' minimum setback from edge of trail to rail centerline



Crossing angle at tracks should be as close to a Ninety degree angle as possible

Standards

- NCRA design standards specify that where trails provide the only access for maintenance and emergency vehicles, they should be built to accommodate heavy vehicle loads. A twelve foot width is strongly recommended for these dual-purpose paths, as narrower paths can crack along the edges due to vehicle loads.
- Where maintenance and emergency access is available from an existing street, pre-selected access routes and curb ramps should accommodate heavy vehicle loads
- Setbacks should be maximized and correlate with train type, speed, frequency, and separation technique, varying from eight and a half feet (nine and a half feet on curves) to one hundred feet
- Two foot minimum distance between paved edge of trail and fencing, three feet is preferred
- Fencing and barriers should meet the requirements of the railroad company, i.e. NCRA. The NCRA suggests a three rail split-rail fence with landscaping in rural or environmentally sensitive areas
- Five to six foot high fencing is adequate for separation in most instances
- Vegetation may grow on fencing to buffer noise
- Storm and irrigation water may not flow or collect in the railroad right-of-way
- At-grade trail crossings of the rail line should be minimized

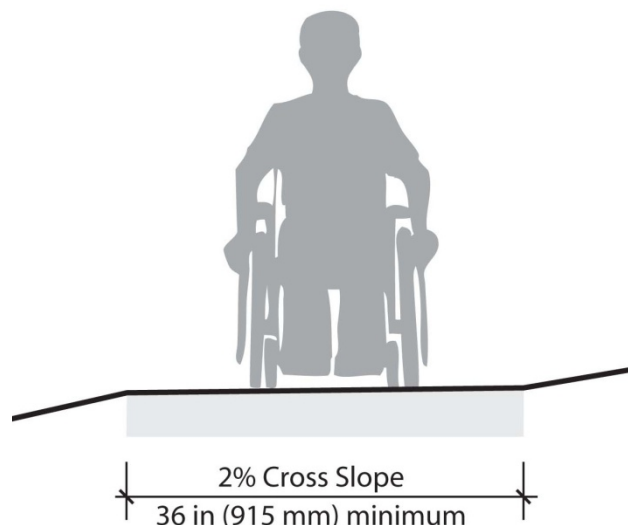
Potential Applications

- NCRA rights-of-way connecting community and/or recreational destinations

Universal Trail Design

Description

Regional trails strive to meet the needs of a broad range of users, including those with physical and cognitive impairments. Oftentimes, constructing outdoor trails includes challenges that make meeting ADA guidelines difficult and sometimes prohibitive. Prohibitive impacts of meeting ADA standards include harm to significant cultural or natural resources, a significant change in the intended purpose of the trail, requirements of construction methods that are against federal, state or local regulations, or terrain characteristics that prevent compliance.



The Architectural and Transportation Barriers Compliance Board (Access Board) is responsible for producing accessibility guidelines that are in accordance with the Americans with Disabilities Act (ADA) of 1990 and the Architectural Barriers Act (ABA) of 1968. As a result of the ADA, the Federal ADA Accessibility Guidelines for Buildings and Facilities (ADAAG) was created to outline the scoping and regulatory requirements of ADA. The ADAAG document does not specifically cover accessibility of outdoor facilities, so to address this deficiency, the Access Board established a regulatory negotiation committee in 1997 to develop accessibility guidelines for outdoor facilities. As a result, the Access Board released the Draft Final Accessibility Guidelines for Outdoor Developed Areas (AGODA) in 2009.

The AGODA establish accessibility guidelines for camping facilities, picnic facilities, viewing areas, outdoor recreation access routes, trails, and beach access routes that are constructed or altered by or on behalf of the federal government. The Draft Final Accessibility Guidelines apply to federal land management agencies, including the U.S. Forest Service, National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management, Bureau of Reclamation, and Army Corps of Engineers.

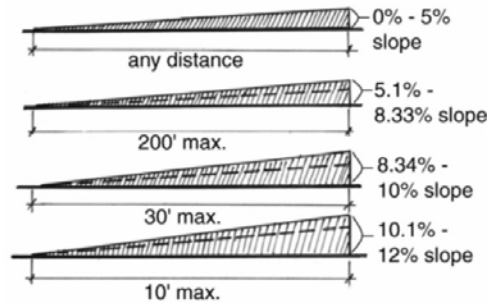
The Draft Final Accessibility Guidelines for Outdoor Developed Areas are available at the following link: www.access-board.gov/outdoor/draft-final.htm

Trails are defined as pedestrian routes developed primarily for outdoor recreational purposes. The technical provisions for trails require the surface to be firm and stable, a minimum clear tread width of thirty-six inches, passing spaces at least sixty inches wide and maximum obstacle heights of one-half to two inches depending on surface type. Additional provisions address openings, slopes, resting intervals, protruding objects, gates and barriers.

Trailheads are defined as an outdoor space developed to serve as an access point to a trail. The AGODA require new signs provided at trailheads on newly constructed or altered trails to include information on

the length of the trail or trail segment, surface type, typical and minimum tread width, and typical and maximum running slope and cross slope. At least twenty percent of each type of outdoor constructed feature within a trailhead must be accessible.

The AGODA for beach access routes include specifications for connections, surface conditions, slopes, obstacles, clear widths, openings, resting intervals, protruding objects and elevated dune crossings. Beach access routes shall connect an entry point to the beach to the high tide level at tidal beaches, mean high water level at river beaches, or normal recreation water level at lake, pond, and reservoir beaches. At least one beach access route for each half mile of shoreline managed by the entity is required to meet the guidelines.



Trail gradients as recommended by the California State Parks Accessibility Guidelines

Furthermore, the State of California requires that all facilities constructed with public funds (federal, state, county, municipal or any political subdivision of the state) be “accessible to and usable by persons with disabilities”. The California State Park Accessibility Guidelines were created to serve as a reference manual of standards, recommendations, and regulations to ensure projects undertaken within the state park system meet universal access requirements.

As stated in the Guidelines, every effort should be made to install and maintain accessible trails. To this end, the Guidelines contain standards for accessible trails such as maximum running slopes, minimum width and frequency of resting spaces, maximum acceptable gaps in the trail surface, optimal clearances and signage requirements. The Guidelines further state that accessible trails should represent the most significant features and environmental experiences unique to the area.

www.parks.ca.gov/pages/21944/files/ca_stateparksaccessguiderev_titlepagewithdisclaimer.pdf

The following table represents the best practices as outlined by the California State Parks Accessibility guidelines and the U.S. Access Board’s Draft Final Accessibility Guidelines for Outdoor Developed Areas.

Standards		
Item	Recommended Treatment	Purpose
Trail Surface	Hard surface such as asphalt, concrete, wood, compacted gravel	Provide smooth surface that accommodates wheelchairs
Trail Gradient	5% maximum without landings 8.33% maximum with landings 10% maximum for a distance of 30 feet 12% maximum for a distance of 10 feet	Greater than 5% is too strenuous for wheelchair users
Trail Cross Slope	2% maximum	Provide positive trail drainage, avoid excessive gravitational pull to side of trail

Trail Width	36” minimum, 60” passing areas	Accommodate a wide variety of users and allows for the passage of two wheelchairs
Trail Amenities: phones, drinking fountains and pedestrian-actuated buttons	Place no higher than 4’ off ground	Provide access within reach of wheelchair users
Detectable pavement changes at curb ramp approaches	Place at top of ramp before entering roadways	Provide visual and/or tactile queues for visually impaired users
Trailhead Signage	Accessibility information such as trail gradient/profile, distances, tread conditions, location of drinking fountains and rest stops	User convenience and safety
Parking	Provide at least one accessible parking area per every 25 vehicle spaces at each trailhead	User convenience and safety
Rest Areas	On trails specifically designated as accessible, provide rest areas or widened areas on the trail optimally at every 300 feet	User convenience and safety
Potential Applications		
<ul style="list-style-type: none"> • Where feasible on the CCT • Major trailheads • Trails accessing community and recreational destinations 		

Crossings

Roadway Intersections

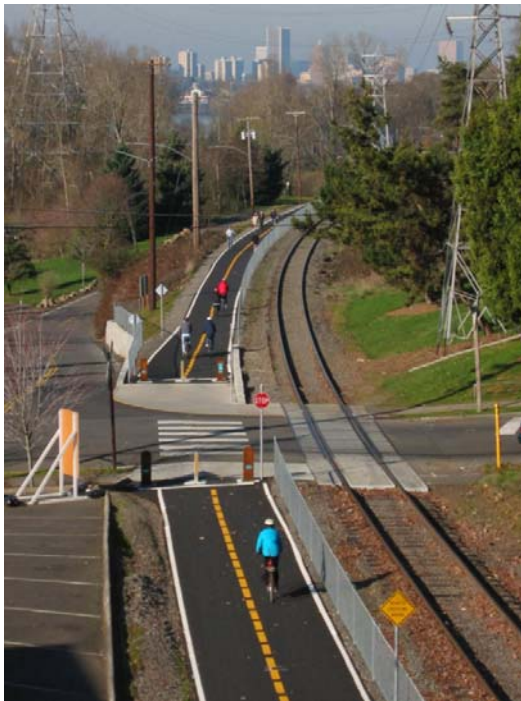
Description

Where a proposed off-street multipurpose path will cross a roadway at-grade, it is important to remember two items: 1) trail users will be enjoying an auto-free experience and may enter into an intersection unexpectedly; and 2) motorists may not anticipate bicyclists riding out into the roadway from a perpendicular trail. However, in most cases, it is possible to design an at-grade trail crossing with a reasonable degree of safety while meeting existing traffic engineering standards.

Evaluation of multipurpose trail crossings should involve an analysis of vehicular traffic patterns, as well as consideration of the behavior of trail users. This includes traffic speeds (85th percentile), street width, traffic volumes (average daily traffic and peak hour traffic), line of sight, and trail user profile (age distribution, range of mobility, destinations). A traffic safety study should be conducted as part of the actual civil engineering design of the proposed crossings to determine the most appropriate design features. This study would identify the most appropriate crossing options given available information, which must be verified and/or refined through the actual engineering and construction document stage.

Graphic

Standards (CAMUTCD)

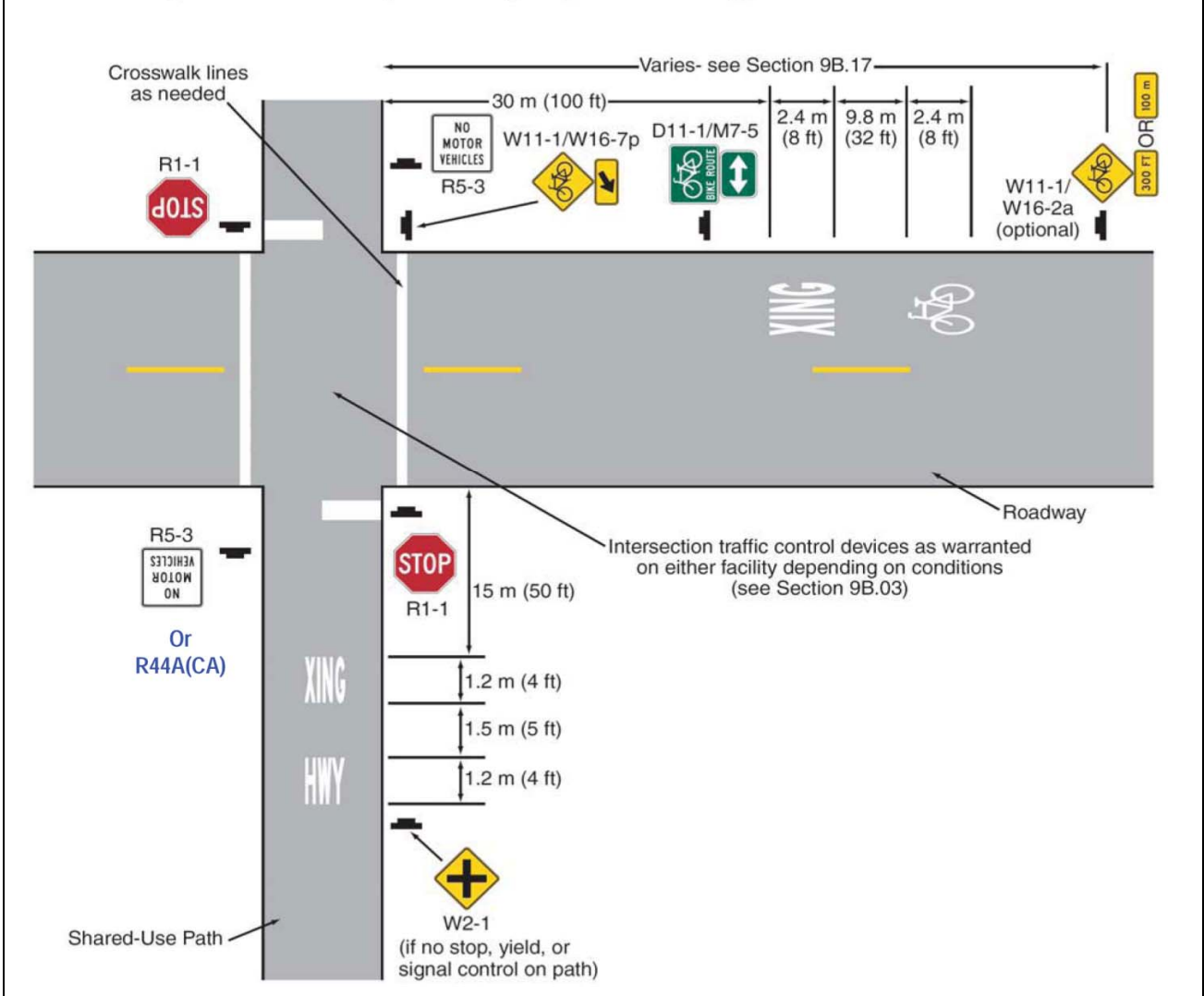


Trail-roadway crossing on the Springwater Trail in Portland, OR

- Intersection Warning (W2-1) signs should not be used where the shared-use path approaches a controlled intersection
- Engineering judgment may determine that limited visibility of a controlled intersection may require Intersection Warning signs.
- Bicycle Warning signs (W11-1) alert the road user to unexpected entries onto the roadway by bicyclists

Graphic (CAMUTCD, Part 9)

Figure 9B-7. Examples of Signing and Markings for Shared-Use Paths



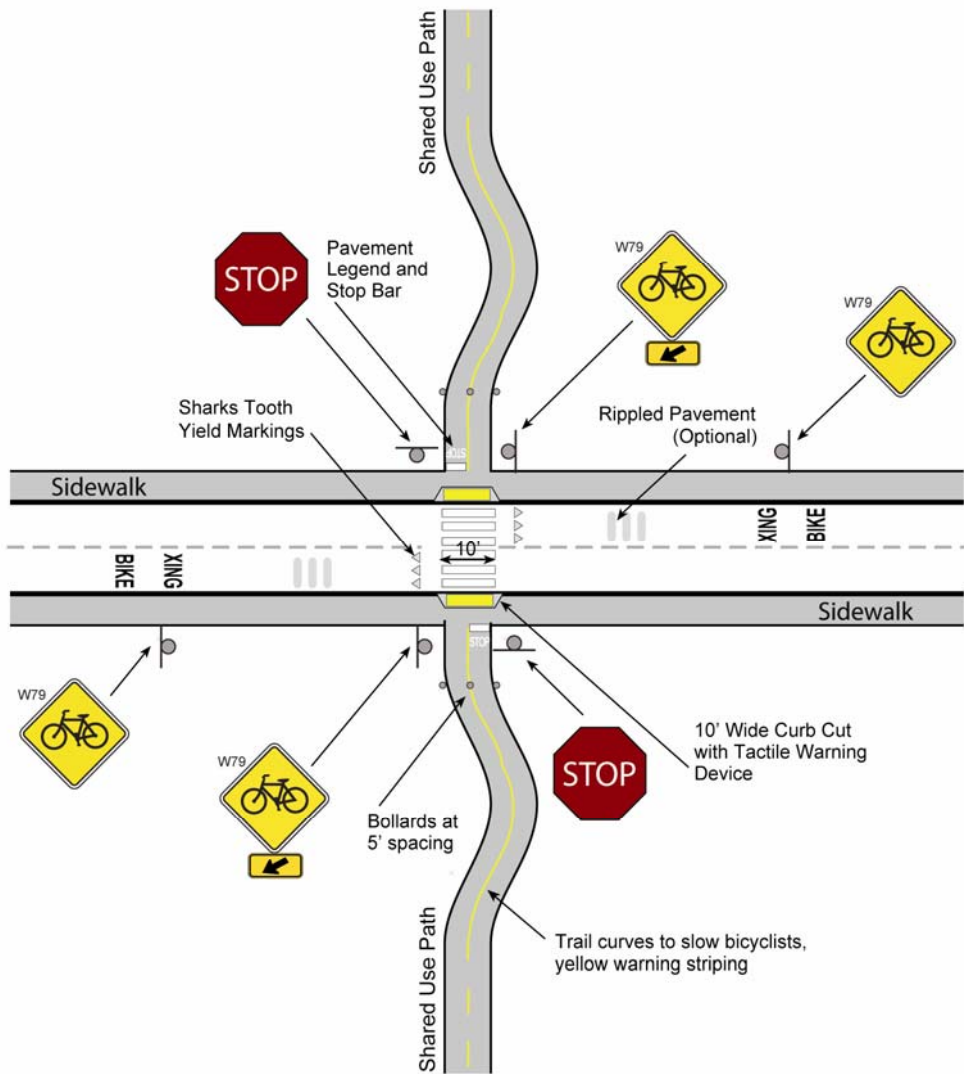
Type 1: Unprotected Crossings

Description

Uncontrolled or Type 1 crossings (unsignalized, but with other traffic control devices) are recommended for streets with 85th percentile travel speeds below 45 mph and Average Daily Trips (ADTs) below 10,000 vehicles.

The approach to designing crossings at mid-block locations depends on an evaluation of vehicular traffic, line of sight, trail traffic, use patterns, road type and width, and other safety issues.

Graphic



Type 1 Unprotected Crossing

Type 2: Route to Existing Intersections

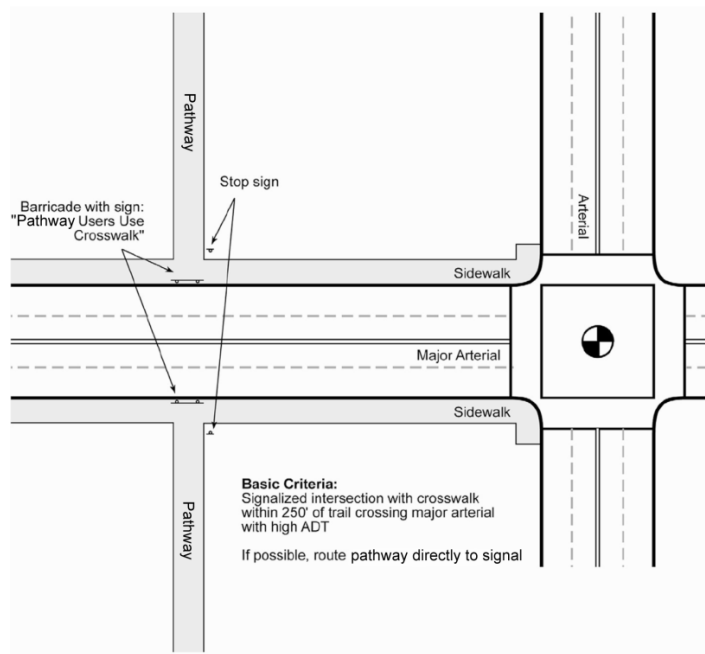
Description

Bike paths that either parallel a roadway or emerge closer than 200 feet from a protected intersection should be routed to that crossing in most cases. The reason is that motorists are not expecting to see pedestrians and bicyclists crossing so close to an intersection, traffic congestion may extend to the point of trail emergence, and the crossing may unnecessarily impact traffic capacity on a corridor.

One of the key challenges with using existing intersections is that it requires bicyclists to transition from a separated two-way facility to pedestrian facilities such as sidewalks and crosswalks, normally reserved for pedestrians. Widening and striping the sidewalk (if possible) between the trail and intersection may help to alleviate some of these concerns.

Where the California Coastal Trail does not emerge at an existing intersection, carefully thought out physical design and directional signing will be required to keep bicyclists and others from crossing at the unmarked location. Signs warning motorists of the presence of bicycles may be needed, as well as right turn on red prohibitions.

Standards



Type 2 Crossing

Maximum Distance from Trail to Intersection:

- 200' for street width 40' or less
- 350' for street width over 40'

Length of barrier to prevent informal crossing:

- 50' for street width 40' or less
- 100' for street width over 40'

Intersection Improvements:

- Warning signs for motorists
- Right turn on red prohibitions
- Elimination of high speed and free right turns
- Adequate crossing time
- Pedestrian-activated signals

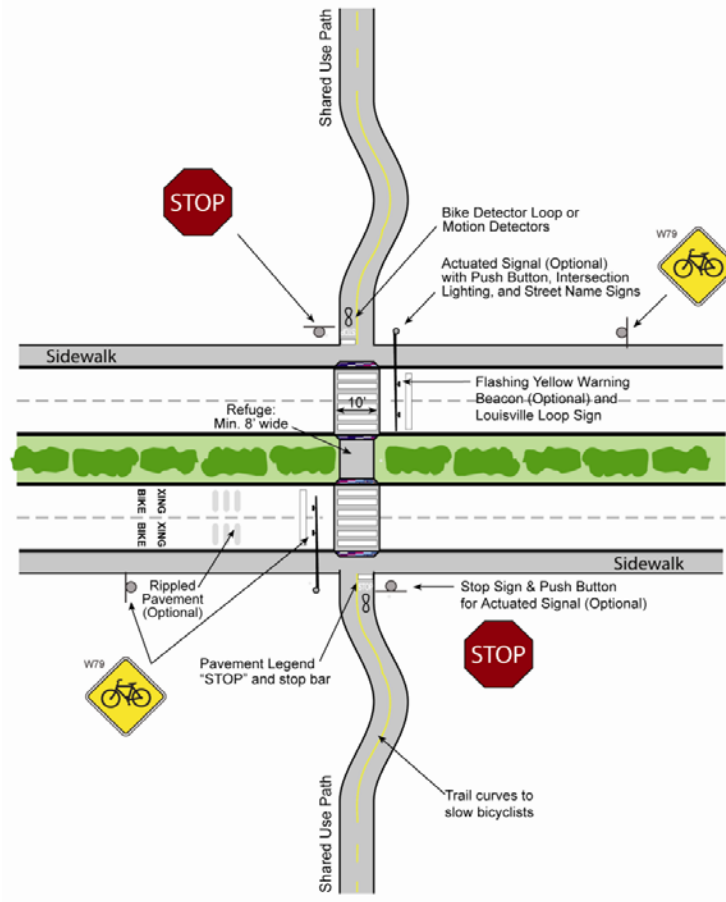
Type 3: Signalized Crossings

Description

New or exclusive signalized crossings (Type 3) are identified for crossings more than 200 feet from an existing signalized intersection and where 85th percentile travel speeds are 45 mph and above and/or ADTs 10,000 vehicles. New signals require the input of local traffic engineers, who review potential impacts on traffic progression, capacity, and safety. On corridors with timed signals, a new trail crossing may need to be coordinated with adjacent signals to maximize efficiency.

Trail signals are normally activated by push buttons, but may also be triggered by motion detectors. The maximum delay for activation of the signal should be sixty seconds, with minimum crossing times determined by the width of the street and trail volumes. The signals may rest on flashing yellow or green for motorists when not activated, and should be supplemented by standard advance warning signs. Typical costs for a signalized crossing range from \$75,000 to \$150,000.

Graphic



Type 3 Signalized Crossing

Type 4: Grade-Separated Crossings

Description

Grade-separated crossings are needed where ADT exceeds 25,000 vehicles, and 85th percentile speeds exceed 45 mph. Safety is a major concern with both overcrossings and undercrossings. When designed properly, grade-separated crossings practically eliminate any safety concerns related to crossing a roadway.

Grade-separated crossing approaches should minimize the out-of-direction travel required by the trail user, so that users don't alternatively attempt to dart across the roadway. Undercrossings, like parking garages, have the reputation of being places where crimes occur, but these safety concerns can be addressed through design. An undercrossing can be designed to be spacious, well-lit, equipped with emergency phones at each end, and completely visible for its entire length prior to entering. For cyclists and pedestrians, vertical clearance should be a minimum of eight feet, with ten feet preferred and twelve feet minimum for equestrians.

Overcrossings, or bridges, avoid darkness and safety concerns that occur with an at- or below-grade option. Any bicycle and pedestrian bridge needs to be approached via ADA compliant ramps (running slopes less than 5%). Bridges present unique opportunities for creating landmark architectural and artistic statements.

Standards



Type 4 grade-separated undercrossing

Maximum Distance from Trail to Intersection:

- 200' for street width 40' or less
- 350' for street width over 40'

Length of barrier to prevent informal crossing:

- 50' for street width 40' or less
- 100' for street width over 40 feet

Intersection Improvements:

- Warning signs for motorists
- Right turn on red prohibitions
- Elimination of high speeds
- Adequate crossing time
- Pedestrian-activated signals

Railroad Crossings

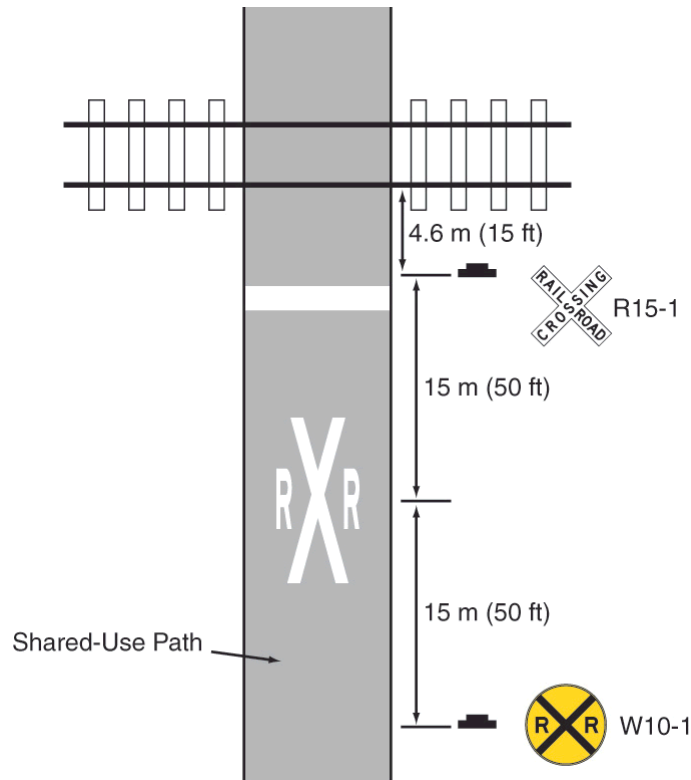
Description

The preferred CCT alignment may include at-grade crossings of railroad tracks. New pedestrian railroad crossing flashers are typically not required for sidewalk crossings at legal crossings as they are redundant with adjacent vehicle crossing warning equipment.

Efforts should be made to have bicyclists cross railroad tracks at as close to a ninety degree angle as possible. As crossing angles deviate from perpendicular angles, possibilities increase for a bicycle wheel to become trapped in the flangeway, or for cyclists to lose traction on wet rails. AASHTO guidelines do not specify a minimum crossing angle; however, any crossing that is less than a forty-five degree angle should be accompanied by a widening in the trail or shoulder area in order to permit a cyclist to cross the track at a safer angle, preferably perpendicular.

Standard concrete railroad crossings with compressible flangeway fillers permit rail operations while creating a smooth or subtle bump for cyclists. Crossing materials should be skid resistant. Colored surfaces also help alert cyclists to potential conflict points. Rubber and concrete materials require less maintenance and have a longer lifespan than wood or asphalt.

Graphic



MUTCD example of signing and marking for shared-use path/railroad crossing

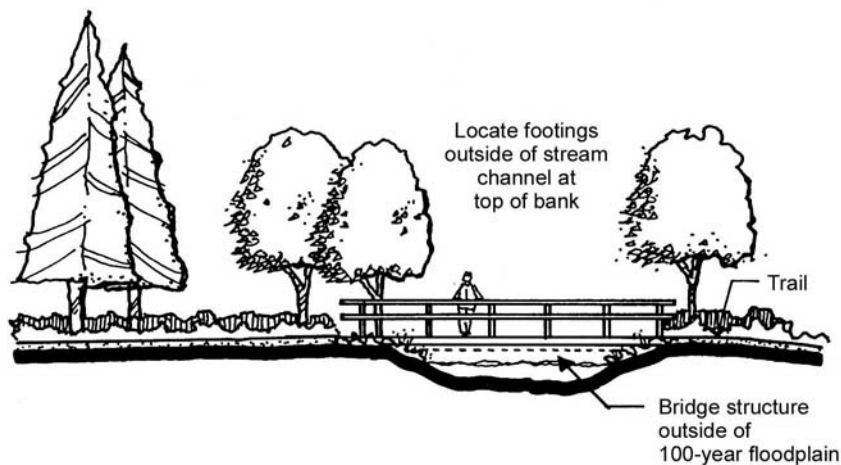
Stream or River Crossings

Description

The preferred alignment may require a stream or river crossing with a bridge. While bridges can be some of the most interesting features of a trail system, they can also be the most challenging. Bridges should be at least as wide as the trail. ADA guidelines require handrails no shorter than thirty-six inches and decking material that is firm and stable. Bridges should accommodate maintenance vehicles if anticipated. Bridge structures should be located out of the 100-year floodplain. Footings should be located on the outside of the stream channel at the top of the stream bank. The bridge should not impede fish passage or constrict the floodway. In the Coastal Zone, bridges should be designed to reduce corrosion and need for maintenance, such as by using composite or other rust-free materials.

All bridges and footings in the California Coastal Trail corridor will need to be designed by a registered structural engineer. Cost, design, and environmental compatibility will dictate which structure is best for the trail corridor.

Graphic



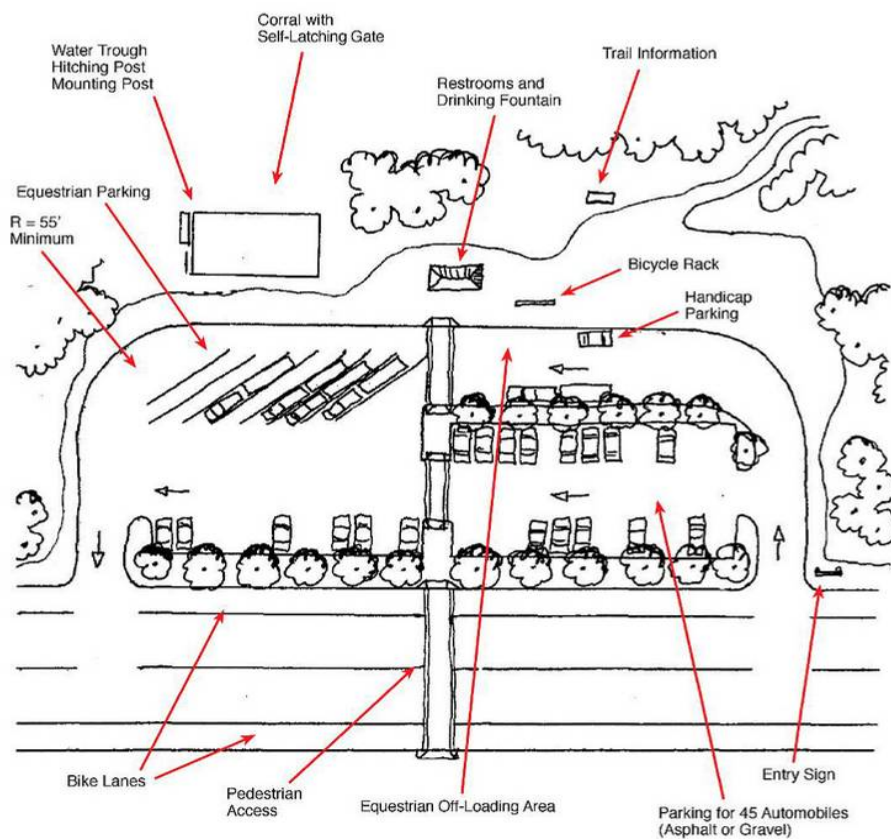
Trail Support Facilities

Trailheads

Description

Clearly defined trail access points are crucial to making trails inviting and accessible. Trail access points should provide the appropriate facilities to accommodate the permitted user types and expected user volumes. The graphic below is an example of a major trailhead access point to a trail that allows hikers, equestrians and bikers. This trail also provides ADA access as indicated by the accessible parking stall nearest the entrance.

Graphic



Standards

- Signage displaying permitted uses, regulations and emergency contact information
- CCT wayfinding and informational signage
- Appropriate number of automobile, trailer & bike parking spaces and horse stalls based on expected user volume
- For major trailheads, provide restrooms and drinking fountains

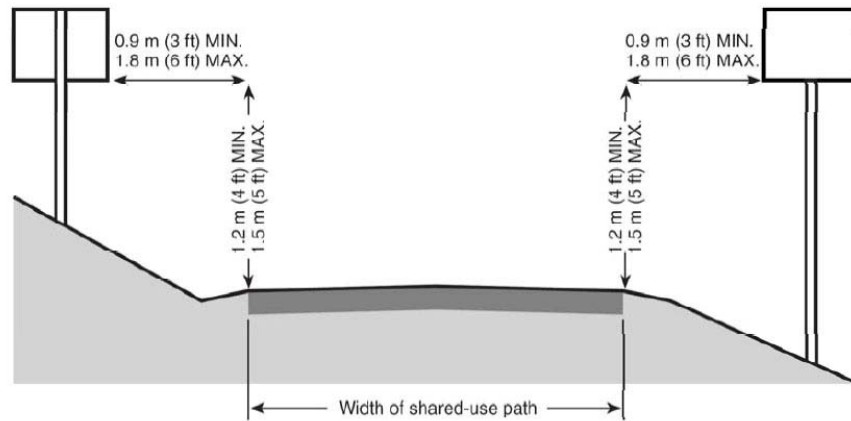
Signs

Signs and markings are an important component of safely directing and regulating bicycle, pedestrian and equestrian usage on regional trail facilities. The California Manual on Uniform Traffic Control Devices (CAMUTCD), Part 9 Traffic Controls for Bicycle Facilities, 2003, should be consulted for typical design standards.

Design and Placement


The CAMUTCD states that all signs shall be retro-reflectorized. Standard sizes for signs oriented towards bicyclists and motor vehicle drivers are available in Part 9 of the CAMUTCD. Vertical sign clearances from multipurpose paths shall be between four and five feet in height. Horizontal clearances shall be between three and six feet from path edge.

The final striping, marking, and signing plan for the Humboldt CCT will be resolved in the full design phase of the trail, and should be reviewed and approved by a licensed traffic engineer or civil engineer. This will be most important at locations where there are poor sight lines from the trail to cross-traffic (either pedestrian or motor vehicle).



The CAMUTCD specifies clearances for signs on shared-use paths.

Regulatory Signs

Description	
<p>Regulatory signs should state the rules and regulations associated with trail usage, as well as identify the managing agency, organization or group. The purpose of trail regulations is to promote user safety and enhance the enjoyment of all users. It is imperative that before any trail is opened, trail use regulations are developed and posted at trailheads and key access points. Trail maps and informational materials might include these regulations as well. Establishing that the trail facility is a regulated traffic environment just like other public rights-of-way is critical for compliance, and often results in a facility requiring minimal enforcement. An attorney can review the trail regulations for consistency with existing ordinances and enforceability. In some locations, it may be necessary to pass additional ordinances to implement trail regulations.</p>	
Typical Trail Regulations	Graphic
<ul style="list-style-type: none"> • Hours of use • Motorized vehicles, other than power-assisted wheelchairs, are prohibited • Keep to the right except when passing • Yield to oncoming traffic when passing • Bicyclists yield to pedestrians • Give an audible warning when passing • Pets must always be on short leashes • Travel no more than two abreast • Alcoholic beverages are not permitted on the trail • Do not wander off of trail onto adjacent properties 	 <p><i>Sign displaying trail rules</i></p>

Warning Signs

Description

Warning signage alerts trail users of upcoming conditions, which may include steep grades, turns and roadway crossings. Warning signs should be installed in a location that provides the trail user with ample time to react. Care must be taken not to place too many signs at crossings lest they overwhelm the user and lose their impact. Sign selection, sizing, clearances and locations are specified in the CAMUTCD, Part 9.

Warning signs should also be installed to alert vehicle drivers of the potential presence of trail users at intersections.

Graphic



Typical warning plaque



W8-10: Bicycle Surface Condition Warning Sign



Trail crossing signs

Wayfinding Signs

Description

A comprehensive sign system makes a trail system memorable and navigable. Informational kiosks with maps at trailheads and other pedestrian generators can provide enough information for someone to use the trail system with little introduction. A trail way-finding map typically includes current location, nearby destinations, and prominent natural and built features.

Trail navigability and identity is enhanced by having a consistent, unique logo or design that will help guide people to and along the trail. Gateways or entry markers at major access points with trail identity information further augment the trail experience. They should be visually clear and distinctive while maintaining consistency with other sign features found on the trail.

Clear, pedestrian-scaled signs and markers will aid in way-finding and separation of user groups. Signs should be consolidated to avoid clutter and sign fatigue. In addition to a trail logo being posted on bollards, gates, and at trailheads, way-finding markers and signs should be placed at key decision points and trail junctions. Distances may also be marked periodically so that trail users who wish to pace themselves have a means of doing so.

Graphic



California Coastal Access sign



Pedestrian scaled mile marker signs



California Coastal Trail marker

Interpretive Installations

Interpretive installations and signs can enhance the trail experience by providing information about the history, culture, and ecology of the area. Installations may discuss local flora and fauna, environmental issues, and other educational information. While interpretive features are often assumed to be sign elements, a variety of means may be used to convey interpretive information including art pieces and interactive exhibits.



Site Furnishings

Trails with high user volumes, particularly those that have drive-in access and service a destination point, should provide amenities to support users. Amenities include trash and recycling receptacles, benches, restrooms, and informational kiosks. Trails that restrict bike or equestrian use, or that facilitate pedestrian coastal access, should provide parking for bikes and horses at their entrances.

Seating & Tables

Providing seating at key rest areas and other appropriate locations encourages people of all ages to use the trail by ensuring that they have a place to rest along the way. Seating can be simple benches with wood slats or more ornate with stone, wrought iron, and concrete. Benches should ideally utilize shady areas to provide trail users relief from the sun. Tables provide picnicking opportunities and should be installed in easily accessible areas near trailheads.



Shaded seating node along the trail.

Bicycle Parking

Bicycle parking allows trail users to safely park their bicycles if they wish to stop along the way or leave their bicycle at trailheads while they hike. Bicycle parking may be installed at trailheads, bicycle trail intersections with trails that prohibit bicycle use, and at popular destinations along a trail.

Lighting

Lighting improves the safety of the trail or path user by increasing visibility during non-daylight hours. Lighting should consider the surrounding land use to minimize unwanted light pollution in unwanted residential areas. Lighting fixtures should be pedestrian scale and installed near benches, drinking fountains, bicycle racks, trailheads, and roadway crossings.



Bicycle racks present opportunities for unique features that make a trail experience memorable.

Under certain circumstances, lights can disorient migratory birds flying at night or attract wildlife, such as insects and insectivores. Potential adverse impacts of new or modified light sources and any appropriate mitigation will need to be determined on a case-by-case basis during environmental review in compliance with CEQA and/or NEPA. In general, lighting systems should direct light to prescribed areas with limited scatter. Lights should avoid unnecessary glare, night sky pollution, light trespass on neighboring properties, and energy waste.

Restrooms

A properly designed public restroom improves the experience of both those who operate the facility and those who use it. Proper design reduces queuing, misuse and the potential for vandalism and lowers initial and recurring costs. At a minimum, restroom layout and design must comply with the ADA and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities. The recommendations below may further improve safety for users and lower maintenance costs.

- Restrooms should be sited to benefit from natural surveillance by the community. Activate the surrounding area with information kiosks, picnic areas, bus stops or parking pay stations.
- Choose vandal-resistant hardware and graffiti-resistant surfaces.
- Clean restrooms frequently. A high level of maintenance can be an effective deterrent to vandalism, litter, and encroachments. Establish a monitoring and evaluation plan for maintenance.
- Lower the risk of in-stall vandalism by putting sinks and trash bins outside in the open.
- Consider the installation of unisex stalls. With unisex stalls, individual toilets can be cleaned or repaired without closing the facility.
- Install a tap for power washing.
- Install ample lighting. Special lighting may be required at entry vestibules.

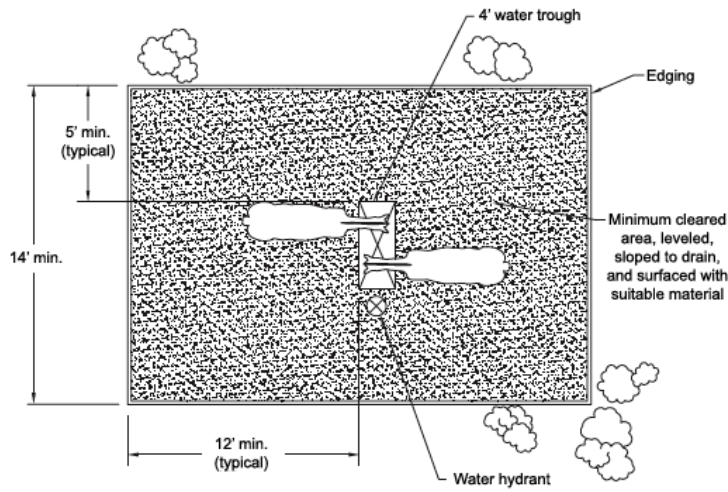


Equestrian Support Facilities

Description

Equestrians benefit from a number of elements that increase user comfort and encourage trail use. Elements recommended include water facilities, mounting blocks, hitch rails and pull-through parking stalls.

Graphic



Water Trough Wearing Surface
Source: USDA/FHWA, *Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds*



Tie rail with chain stops.



Sign denoting that pull-through stalls are reserved for equestrians.

Standards

Water

- Stock need an average of fifteen gallons of water per day, per animal. Due to concerns about disease transmission, some riders prefer to provide their own water for their stock and do not permit shared use of water with other stock. Other riders prefer to fill their own bucket from a hydrant, while other riders prefer a water trough. To meet the needs of all riders, a hydrant and shallow water troughs are recommended. Self-draining water troughs can reduce standing water problems and algae growth. Raised shallow basins allow horses to see in all directions.
- Water facilities should be located at the perimeter of parking areas and along paths and be free from vegetation and obstructions. Water troughs should be installed on a wearing surface. The wearing surface should be on an aggregate base, sloped for drainage, and allow for adequate clearance from the trough and hydrant on all sides.

Mounting Blocks

- Mounting blocks typically resemble a short staircase that ends in midair to assist riders in mounting their horses. Mounting blocks can be made from fiberglass, wood, metal, concrete or plastic. Mounting blocks can also be rocks, hay bales, stumps, etc. It is important to note that riders usually mount horses from the left, thus adequate clearance of any obstructions should be allowed around the horse and mounting block. A clearance between eight and ten feet is recommended. Many riders provide their own mounting blocks, but some permanent fixtures are recommended.

Hitch Rails

- Hitch or Tie rails should be available throughout the trailhead to anchor horses. Hitch rails can be made of wood, metal (i.e., rebar) or other sturdy material and should have “stops” along the rail to prevent reins from sliding.

Parking Stalls

- Pull-through stalls (15' x 45') on a compacted natural surface for trucks and horse trailers is recommended. The pull-through stalls should allow enough room for the loading and unloading of stock and some “tacking up.”

Access Management

Description

Access management strategies should be used to address identified hazards such as adjacent roadways, railroads and motorized vehicles on trails. Fencing and other barriers can also define a trail corridor, prevent trespassing on private or sensitive land and separate trail users. A combination of fencing and barrier types is often required to manage access to and from multipurpose pathways.

Fence types should be selected based on context and purpose. Three to four feet high fencing constructed from natural or native materials may be appropriate in scenic areas where trespassing is not an issue. Metal fencing, six feet and higher, can prevent trespassing along railroads or highways where a history of trespassing has been noted. Sight lines should also be considered when selecting fence type. Visually permeable fencing should be utilized in locations where equestrians are expected.

Railings or safety barriers are recommended when a trail occurs within six feet of a steep slope (more than 3:1) with a vertical grade change or drop off of more than thirty inches.

Equestrian “step overs,” also known as cavaletti, are barriers that allow a horse to step over the barrier, but deter motor vehicle passage. Pedestrians and bicyclists can typically negotiate a cavaletti, however cyclists with panniers may have trouble with passage.

Vegetation can perform the function of a physical and visual barrier on a trail. Vegetation may be used: along trail edges to encourage trail users to stay on the trail; between parallel or split trails to reinforce separation of trail uses; in conjunction with fencing to reinforce the barrier; to soften trail edges; to provide privacy screening; and to provide a windbreak. Vegetation may also be used at split trail access points to deter motor vehicle access.

Elevation changes provide physical and visual separation of a trail from other trails and road or railways. Elevation differentials can range from a six inch curb to a major grade change to attain the type of barrier needed.

Bollard use on a multipurpose pathway should only be considered when there is a known history or significant potential for unauthorized motorized vehicles driving on paths. Bollards can deter some types of motor vehicle access onto a trail or provide a physical barrier between motor vehicle traffic and adjacent non-motorized traffic. Efforts should be made to minimize the use of bollards to avoid creating obstacles for bicyclists and other trail users. When bollards must be used, flexible bollards or posts pose less risk to trail users and thus are recommended as alternatives to concrete or metal bollards. Flexible bollards are typically made of plastic and are anchored to concrete supports. Flexible bollards give way on impact, and then return to an upright position. To deter vehicular access, bollards should be spaced five feet apart. Where off-highway vehicles, such as four-wheelers and motorcycles, are anticipated, bollards would be spaced closer together. Bollards should never be placed in the center of the bicycle travel way.

Graphic



An equestrian caveletti, used in combination with fencing and a gate, deters motorized vehicles.



A combination of bollards, fencing and a "step over" were used on this trail to manage motorized access.



Vegetation provides an effective barrier between these two parallel trails.



Fencing provides a physical barrier between the pathway and a parallel dirt road, keeping motorized vehicles off the trail.

Standards

- Four foot fence height for rural areas without a history of trespassing, set back twenty-five feet from railroads or highways if possible
- Five foot fence height for protecting users from wind and debris
- Six foot fence height made from metal in areas with a history of trespassing
- Two foot minimum shy distance from paved edge of trail to fence
- Five foot maximum spacing between bollards, bollard not to be placed within the center of the travel route

Potential Applications

- Areas with a history of trespassing
- Areas with livestock and likelihood of dog use on trails
- Deterring motorized access
- Necessary improvements in private property fencing along trail routes
- Separation from roadways, railroads, hazards, and debris
- Separation of trail users

User Conflict Reduction Strategies

Description

Bicyclists, pedestrians, equestrians and motorists, should exercise caution when sharing a trail facility. Horses in particular may be startled by a fast moving trail user. Pedestrians and equestrians are often compatible on the same trail as they both accept unpaved surfaces and move at relatively slow speeds. There are many means of reducing trail user conflicts including trail width, distance, striping, surfacing, time, barriers and education.

Width: Planning for, and constructing, a multipurpose pathway with a tread wide enough to accommodate user capacity and demand is one of the most effective measures to avoid conflicts between bicyclists and pedestrians (*FHWA University Course on Bicycle and Pedestrian Transportation, 2006*). Recommendations for trail width depend on the amount of space available and type of trail users expected. Recommendations for trail widths by facility type are discussed in this appendix.

Distance: Distance separation refers to a physical separation of trail users. In corridors where ample right-of-way is available, a number of design treatments may be applied to separate trail users, including vegetated buffers, fencing, elevation changes and split trails.

Elevation changes provide a physical and visual separation of a trail from other trails and roadways. Elevation differentials can range from a six inch curb to a major grade change to attain the type of barrier or separation needed.

Split trails are two or more parallel trails, with each trail having a specific designated use. Split trails are often implemented to ease trail congestion and conflicts between non-compatible trail users. Split trails can be used to separate pedestrians and bicyclists, bicyclists and equestrians, two-way bicyclist traffic, as well as deter motorized vehicles from entering a trail at an access point.

Striping: Where multipurpose paths are of adequate width, pavement striping can serve as visual delineation between opposing travel lanes as well as indicate separation of travel modes. The CAMUTCD (Section 9C.03) supports yellow centerline markings where there is heavy pathway use, sightlines are restricted, and on unlighted paths where nighttime riding is anticipated. Solid white lines can be used to separate different types of users traveling in the same direction. Supplemental pavement markings are recommended to assist trail users in identifying the appropriate pathway for use.

Surfacing: When a pathway corridor width is constrained, another approach to conflict reduction is to locate two different pathways side by side (with no separation) and use different surfaces to foster visual separation and clarity. The surface treatment chosen should be suitable for its anticipated user group. To accommodate equestrians in these constrained conditions, often an expanded natural surface trail shoulder is used.

Time: Time separation applies when different user groups are expected to use a corridor at different times of the day, week or year (such as cyclists during weekday commute hours and equestrians during evenings or weekends only, or cross country skiers during winter months only).

Barriers: When barriers are necessary to separate user types, options include vegetation, walls, fences, and railings. Vegetation can be used in a number of ways: between parallel or split trails to reinforce separation of trail uses; in conjunction with fencing to reinforce the barrier; to soften trail edges; to provide privacy screening; to provide a windbreak; to manage stormwater; and improve site aesthetics.

Walls, fencing and railings should be selected based on location and purpose. Three to four feet high fencing, constructed from natural or native materials, is appropriate for scenic areas where trespassing is not an issue. Metal fencing, six feet and higher, can prevent trespassing along railroads or highways. Sight lines should be considered when selecting a fence type. When solid walls are necessary, vegetation should be used to soften the structure's appearance. Where equestrians are anticipated, the accepted height for equestrian barriers is fifty-four inches. Solid barriers significantly limit an animal's peripheral vision and sense of security, and thus are not recommended.

Education: Informing trail users of acceptable trail etiquette, is a common concern when multiple user types are anticipated. Yielding the right-of-way is a courtesy and yet a necessary part of a safe trail experience involving multiple trail users. Trail right-of-way information should be posted at trail access points and along the trail. The message must be clear and easy to understand. Where appropriate, trail etiquette systems should instruct cyclists to yield to pedestrians and equestrians and pedestrians to yield to equestrians.

Graphic



This trail is heavily used by bicyclists and pedestrians. A split trail configuration would ease congestion and conflicts.



Fencing helps define the trail corridor. Pedestrians and bicyclists on the left, equestrians on the right.

Graphic



Vegetation, different surface treatments and signs assist users in choosing the appropriate pathway.



These split trails separate pedestrians and bicyclists. Trail signage and pavement markings direct users to the appropriate trails.



Trail etiquette signs are highly recommended on multipurpose pathway.



This sign reminds users to share the trail and watch for equestrians.

Drainage & Erosion Control

Description

Erosion control is necessary to maintain a stable walkway and trail surface. Following land contours helps reduce erosion problems, minimizes maintenance and increases comfort levels on all trail types.

Paved Surfaces: A 2% cross slope will resolve most drainage issues on a paved path and should be used for both the trail and its shoulders. A maximum 1:6 slope may be used for the shoulders, although 2% is preferred. For sections of cut where uphill water is collected in a ditch and directed to a catch basin, water should be directed under the trail in a drainage pipe of suitable dimensions. Per NCRA guidelines, water should be directed away from rail tracks. It is preferable where possible (especially with high precipitation rates in Humboldt County), to reduce concentrating water into drainage systems and to design trails that dissipate runoff with crowning or cross-slope. During trail construction, local erosion control best practices should be followed.

Natural Surfaces: Erosion will occur on natural surface trails. Natural surface trails should be designed to accommodate erosion by shaping the tread to limit how much erosion occurs and to maintain a stable walkway and trail surface. The goal is to outslope the trail so that water sheets across, instead of down, its tread. Even the most well-built trails will break down over time from forces such as compaction and displacement. It is preferable to use crushed fines for surfacing of natural trails where possible, especially on slopes, to reduce trenching and rilling over time.

Designing trails with rolling grades is the preferred way to build sustainable natural surface trails. “Rolling grade” describes the series of dips, crests, climbs and drainage crossings linked in response to the existing landforms on the site to form a sustainable trail. The tread of the trail must be able to drain to a point lower than the trail at all times. When a natural rolling grade cannot be developed, grade reversals (sometimes known as grade dips, grade breaks, drain dips or rolling dips) are constructed to create trail undulations. Frequent grade reversals are a critical element for controlling erosion on sustainable trails. A general rule-of-thumb is to incorporate a grade reversal every twenty to fifty linear feet along the trail to divide the trail into smaller watersheds so the drainage characteristics from one section won’t affect another section. Water which is allowed to flow parallel to the direction of travel of the trail will cause incised erosion channels.

Grade reversals have the added benefit of adding interest to any trail. All trail users appreciate the short downhill break during a long climb, or the opportunity to ‘let off their brakes’ for a bit during a long downhill trek. Rolling grade and grade reversals are preferred to other mechanical methods of routing water off of trails such as water bars, check dams, and culverts because they do not present a barrier to users.

In 2002, the Humboldt County Board of Supervisors adopted grading ordinance revisions. The purpose of these revisions is to set forth provisions related to grading, some of which relate to trail implementation. Trail construction as part of a County Public Works project is exempt from permitting, unless it is located within a Streamside Management Area, geologically unstable area or flood plain.

Graphic



Water erosion undercuts an asphalt trail surface, posing a safety issue for trail users and costly maintenance repairs.



Natural surface trails are subject to erosion when water is allowed to travel along their length.

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Appendix J: Trail Management

This section discusses potential strategies municipalities can employ to facilitate trail development and management efforts along the CCT in Humboldt County. The strategies are based on obstacles and constraints cited by local jurisdiction staff. Constraints include limited long-term funding to support trail operations and maintenance, an uncoordinated approach to trail system development and management, and a lack of trail development mechanisms (e.g. adopted trail design guidelines, policies or plans) in place at the local level. It is hoped these strategies will stimulate discussions, both locally and regionally, on ways to overcome trail development obstacles.

Operations and Maintenance

A high level of trail maintenance is critical to the overall success and safety of any trail system. Maintenance includes activities such as pavement stabilization, landscape maintenance, facility upkeep, sign replacement, fencing, mowing, litter removal, painting, and pest control. However, the benefits of a good maintenance program are not limited to the physical and biological features of the trails:

- A high standard of maintenance is an effective way to advertise and promote trails as a local and regional recreational resource and destination
- The psychological effects of good maintenance serve as an effective deterrent to vandalism, litter, and encroachments
- Regular maintenance is necessary to preserve positive public relations between adjacent land owners and trail managing agencies
- Good maintenance makes enforcement of regulations on the trails more efficient. The management agencies, local organizations and service groups will take pride in “their” trail and will be more apt to assist in protection of the trail system.
- A proactive maintenance policy will help improve safety along the trails

Costs for routine operations and maintenance on the Hammond Coastal Trail and estimate for O&M on trails throughout the County are given in Appendix M: Funding Considerations.

Maintenance Guidelines

A successful maintenance program requires continuity and a high level of citizen involvement. Regular, routine maintenance on a year-round basis will not only improve trail safety, but will also prolong the life of the trails. Maintenance activities required for safe trail operations should always receive top priority.

The California Coastal Trail system through Humboldt County will consist of a variety of facility types, each with distinct maintenance requirements. The table below summarizes typical maintenance standards for regional trail systems:

Table J-1: Schedule of Maintenance Standards

<i>Maintenance Task</i>	<i>Suggested Frequency</i>
Major damage response (fallen trees, washouts, flooding)	Immediate in response to need
Site furnishings; replace damaged components	As needed
Graffiti removal	Weekly; as needed
Shrub/tree irrigation for introduced planting areas	Weekly during summer months until plants are established
Trash disposal	Weekly during high use; twice monthly during low use
Litter pick-up	Weekly during high use; twice monthly during low use
Fencing repair	Inspect monthly for holes and damage, repair immediately
Inspections	Seasonally (4 times/year)
Pavement sweeping/blowing	As needed; before high-use season
Culvert inspection	Before rainy season; after major storms
Maintaining culvert inlets	Inspect before onset of wet season
Lighting repair	Annually
Waterbar maintenance (earthen trails)	Annually
Shoulder plant trimming (weeds, trees, branches)	Bi-annual (Fall or Spring)
Sign repair/replacement	1-3 years
Pavement markings replacement	1-3 years
Introduced tree and shrub plantings, trimming	1-3 years
Pavement sealing; pothole repair	5-15 years

Paved Multipurpose Path Maintenance

Cracks, ruts and water damage will need to be repaired periodically. In addition, vegetation control will be necessary on a regular basis. Where drainage problems exist along trails, ditches and drainage structures will need to be kept clear of debris to prevent wash outs. Checks for erosion along the trails should occur immediately after any storm that brings flooding to the local area. The trail surface should be kept free of debris, especially broken glass and other sharp objects, loose gravel, leaves and stray branches. Trail surfaces should be swept periodically to keep them clear of debris. Sweeping should be scheduled based on need. Path segments in forested areas will tend to accumulate surface debris such as leaves and branches at a faster rate than other path segments. These areas should be swept more frequently in order to maintain safe surface conditions on paved multipurpose paths.

On-Street Bikeway Maintenance

While implementing bikeway facilities is important, keeping them in good condition is equally important. When a bicycle lane becomes filled with debris, cyclists are forced into the motor vehicle lane. Poor bikeway maintenance can contribute to accidents and deter potential cyclists unwilling to risk flat tires and skidding on roadways. Periodic checks should be made of the on-street bikeway network with work being confined to spot fixes and damage response. Street sweeping of on-street facilities will need to be coordinated with the management agency's roadway maintenance program to ensure that the roadway is cleared curb to curb. Activities could also be driven by maintenance requests from the public.

Sidewalk Maintenance

The ongoing maintenance of sidewalks and promenades associated with trail systems is key in providing safe and convenient access to recreational opportunities in and around developed areas. It should be the ultimate goal of the management agencies to clear all sidewalks in the winter and summer to enhance mobility, access to recreational opportunities, and public safety. Sidewalk maintenance is typically the responsibility of a Public Works Department and should be achieved either through ordinance or the creation of new assessment districts. Recreational trails funding should not be used for sidewalk maintenance purposes.

Natural Surface Trail Maintenance

In general, trail users should have clear views of their surroundings so plantings along trails should be maintained to allow for visibility. Understory vegetation along trail corridors should not be allowed to grow higher than thirty-six inches. Tree species selection and placement should be made that minimizes vegetative litter on the trail. Vertical clearance along the trail should be periodically checked and any overhanging branches over the trail should be pruned to a minimum vertical clearance of ten feet (twelve feet where equestrians are anticipated).



Trail closure signage identifying the dates of closure and impacted trail segment.

Vegetation eighteen to twenty-two inches and above should be cleared to meet a twenty-four to thirty-six inch horizontal clearance minimum.

The trail surface should be inspected and repaired to avoid erosion and tripping hazards. The management agency should correct or improve drainage to retain the integrity of the trail structure, including the removal of trail edges where berms tend to build up and where uphill slopes erode onto the trails. In flat areas, the trail should be constructed to provide a surface with a crown or cross slope. Trails in hillside areas should be maintained to provide an outslope. Similar to paved multipurpose paths, the trail surface should be kept free of debris, loose gravel, leaves, and stray branches.

Temporary Trail Closures

The trail, or sections of the trail, may be closed from time to time for maintenance of the facility. Trail users will need to be managed during these closures. The procedural policies that should be followed prior to the closing of the trail are listed below.

- The management agency should post signs at all trail entrances on the impacted segments to be closed indicating the duration of the closure.
- The management agency should keep the public informed and make every effort to keep the closure period as short as possible. The forty-eight hour notice shall be waived in the case of emergencies.
- The management agency should physically block the trail that is being closed with barriers and post “Trail Closed” signs.
- The management agency should provide “Detour” signs describing alternate routes.

The management agency should not re-open the trail until it has been inspected to ensure that the trail is in usable condition. Where obstructions remain, the management agency should provide warning signs for trail users to slow down or dismount where needed.

Trail Monitoring and Safety

This section discusses security and public safety and trail user education and outreach for the Humboldt County portion of the California Coastal Trail system.

Security and Public Safety

Properly designed and managed, the Humboldt County portion of the California Coastal Trail system will provide a reasonable level of safety and security. Additionally, studies have shown that high use is the most effective method of enhancing safety and security. While portions of the trail are expected to occur in rural areas, trails in isolated locations throughout California have generally not experienced significant safety problems.

In order to maximize safety and functionality for users, and to minimize liability exposure for the management agencies and



Patrols encourage appropriate facility use.

other property owners, the trail design shall meet all mandatory and advisory standards as identified by Caltrans in the Highway Design Manual, CAMUTCD and the Americans with Disabilities Act (ADA) where feasible and appropriate.

Trail Patrols and Enforcement

Generally, the trail is expected to be self-enforcing by the general public. For the first three months after opening, the management agencies should patrol the trail on a daily basis. After the first three months, the management agencies should patrol on an intermittent basis. The level of patrols should be based on reported incidents and problems.

Community Involvement with Trail Safety

Creating a safe trail environment goes beyond law enforcement officers and should involve the entire community. The most effective and most visible deterrent to illegal activity on any trail is the presence of legitimate trail users. As a general pattern, introducing legitimate use on the trail right-of-way will discourage illegitimate use. Getting as many “eyes on the corridor” as possible is a key deterrent to undesirable activity on the trail. There are several components to accomplishing effective community involvement in trail safety as outlined below.

Provide Access to the Trail

Wherever feasible, provide public access to the trail. Access points should be inviting and signed to welcome the public onto the trail. This includes access from trailheads, other trails, adjacent communities, at roadway crossings and destination points.

Good Visibility from Adjacent Neighbors

Neighbors adjacent to the trail potentially provide twenty-four hour surveillance of the trail and can become a trail manager’s ally. Though some screening and setback of the trail is needed to protect an adjacent neighbor’s privacy, complete visual blocking of the trail from neighborhood view should be discouraged.

High Level of Maintenance

A well-maintained trail sends a message to the public that the community cares about the trail. This message discourages undesirable activity along the trail.

Programmed Events

Events along the trail will help increase public awareness of the trail, thereby bringing more people to the trail. Efforts should aim at raising public awareness while increasing support for the trail. Events might include a daylong trail clean up or a series of short walks led by long-time residents or local leaders.

Community Projects

Community projects are the strongest means of creating a sense of ownership along the trail and they are perhaps the strongest deterrent to undesirable activity along the trail. Ideas for community projects include volunteer planting events and art projects.

Adopt-a-Trail Program

Businesses and residential communities may abut the CCT.

Neighbors of the trail often see the benefit of involvement in trail development and maintenance. Businesses and developers may view the trail as an integral piece of site planning and thus be willing to take on some level of responsibility for the trail. Creation of an adopt-a-trail program should be explored to capitalize on this opportunity and build civic pride. The adopt-a-trail program could include an adopt-a-creek component to keep the county's creeks clean from garbage.



Trails Trust of Humboldt Bay work party event.

Trail Safety Education and Outreach

On-going safety education is an important means of reducing liability exposure and encouraging safe behavior. Management agencies need to ensure that warning signs explaining the importance of staying on the authorized trail are prominently displayed and regularly maintained. Additionally, the management agencies could create trail brochures or initiate more formal education programs and engage in trail patrols.

Trail Brochures

Management agencies may consider developing, printing, and distributing brochures. Content may include safety information, maps of existing and planned trails, walkways, bikeways, and other trail related facilities, as well as information encouraging more local trips by foot, horse or bicycle. Maps should include transit stops to demonstrate how people might walk or bicycle to transit. Brochures should be available at trailheads, City Halls, county offices, visitor centers, libraries, community centers and local bicycle shops.

Trail Patrols for User Outreach

Volunteer or professional trail patrols are also beneficial in improving trail safety. Patrols range from informal monthly clean-up and maintenance crews to daily patrols that provide maps, information and emergency assistance. The primary function of these patrols should be to educate trail users and to provide assistance when necessary. Patrols should also be equipped to alert emergency services quickly if needed. Above all, the presence of a patrol deters crime and improves users' enjoyment of the trail. Trail managers should be creative in using "friends of the trail" groups, local community organizations and law enforcement to maintain and monitor the trail.



Trail safety education and outreach are important means of reducing liability exposure and encouraging safe behavior.

Volunteer Trail Stewards Program

In the interest of helping jurisdictions meet challenges with operations and maintenance of current and future trail systems, the volunteer supported program 'Volunteer Trail Stewards' (VTS) was formed from a cooperative partnership between two local non-profits-the Trails Trust of Humboldt Bay and Friends of the Dunes.

Volunteers participating in this program typically are those trail users who walk sections of the trail on a daily or weekly basis. Volunteers act as eyes and ears on the ground, aiding jurisdictions in monitoring trail usage and performing light maintenance duties on local trails. The program trains Stewards to report back on trail conditions after each walk, provide trail information to other users, help prioritize maintenance needs requiring immediate versus long-term attention, and organize periodic maintenance days to improve the trail environment. The primary goal of the VTS program is to get neighbors and frequent users of trails involved in the daily operations and maintenance of their local trails.

Currently, volunteers of the Trails Trust are working out MOUs with the City of Eureka and the County of Humboldt in an effort to embark on two pilot projects located at Eureka's Cooper Gulch Park and the Hammond Trail. Agreements between the VTS program and each jurisdiction will vary slightly depending on each jurisdiction's unique needs. Friends of the Dunes, provides insurance coverage and will work as a partner in the program. The VTS program may serve as an effective tool in the future for enabling the development of new trails by addressing concerns over the ability of an agency to meet the burden of additional operations and maintenance demands and costs.



Volunteer trail steward event at Cooper Gulch Park.

Trail Corridor Acquisition Mechanisms

Lead agencies seeking to implement a trail on another property owner's land typically have five options in gaining authority over the portion of the property needed for the trail. These five options (purchase, easement, prescriptive rights, dedication, and memoranda of understanding) offer a range of control of the land and assumed liability.

Purchase

Public agencies may purchase land for trails to ease coordination and implementation efforts, and provide ongoing maintenance. One important benefit of purchasing property has to do with liability. Civil law regarding liability applies differently to government agencies than to private landowners. Generally, government agencies are provided a level of liability immunity against civil actions for injury on public property and/or facilities (i.e. trails). The downside of purchasing property outright is the cost, as public agencies rarely have enough dedicated funds for such a purchase.

Easements

Obtaining easement dedications provides public agencies with an option to gain control over a desired property without purchasing the property outright. Easements are non-possessory interests to use the real property in possession of another person for a stated purpose. Easements preclude the property owner(s) from developing or engaging in other specified land use activities on the property or the portion of the property encumbered by the easement. Easements are also tied to the land, so changes in property ownership do not impact the validity of an easement dedication.

Landowners can negotiate the terms and price of the easement with the interested agency. Only after an easement dedication is accepted, does the landowner relinquish interest in the property.

The California Coastal Commission has an Offer to Dedicate (OTD) public access easement program. The program utilizes several types of easements, including vertical accessway easements, lateral easements and open space and/or conservation easements. Vertical accessway easements allow public access from the nearest public road to the shoreline. Lateral easements are parallel to the shoreline and are influenced by site topography and the mean high tide mark. Open space and/or conservation easements are intended to preserve the open space or natural resource provided by the property.

Prescriptive Rights

California law provides that under certain conditions, long term public access across private property may result in the establishment of a permanent public easement. This is called a public prescriptive right of access. The California Coastal Commission describes prescriptive rights as:

"...public rights that are acquired over private lands through use. Along the California coast the general public has historically used numerous coastal areas. Trails to the beach, informal parking areas, beaches, and blufftops have provided recreational opportunities for hiking, picnicking, fishing, swimming, surfing, diving, viewing and nature study. The public may have the right to use the property by permission of the owner or the public may acquire the right through use of the property without permission."

Where research indicates that the public use is substantial enough to create potential prescriptive rights, the Attorney General's Office has the authority to proceed with the legal action necessary to protect those areas. Basic criteria to determining a public prescriptive right include that the land has been used:

- For the prescriptive period of five years as if it were public land - the use must be substantial rather than minimal - and continual, though it need not be continuous
- Without asking or receiving permission from the owner
- With the actual or presumed knowledge of the owner
- Without significant objection or bona fide attempts by the fee owner to prevent or halt such use

Dedication

An agency may also require developers to dedicate land for recreational trails and parks. Dedications may be included as conditions of approval of the development. Agencies must prove a connection between the requested dedication and the impacts imposed by new development or sub-divisions.

Memorandum of Understanding

A Memorandum of Understanding (MOU) is a formal agreement between two or more agencies indicating a common line of action. MOUs can contain well-defined legal elements that make them legally binding. Public, private and non-profit entities and other interested parties can enter into a MOU. For the California Coastal Trail, MOUs could be useful in delegating management and maintenance responsibilities where the trail crosses multi-jurisdictional boundaries. Trail management agreements, some of which can be MOUs, are detailed below.

Trail Management Agreements

The linear nature of trail systems traversing through multiple jurisdictions will require regional participation and long-term cost-share commitments for operations and maintenance. Trail planning, development and management efforts could be strengthened through a formal, regional government planning and management process that improves information sharing and builds strong collaborative partnerships. Common concerns, such as the operations and maintenance of the trail system, can be more effectively resolved when partnerships already exist and when decision-making can be coordinated by an entity representing interests of all involved. Additionally, multi-agency support and collaboration will increase the region's capacity to leverage funds for local, tribal, county and state non-motorized transportation facilities. A local interagency collaboration has been initiated during the Humboldt County Association of Governments' Regional Trails Master Plan process.

Local Trail Management Partnerships

The CCT through Humboldt County will be implemented by multiple jurisdictions over a period of years as opportunities arise. Municipalities and agencies striving to complete the CCT through each respective jurisdiction should work towards development of the physical trail as well as proactively address policies, operations, and maintenance issues that could preclude trail development. Addressing potential programmatic barriers to the completion of the CCT should be strategically approached by each jurisdiction. Policies that may have an influence on CCT trail development such as trail design policies, coastal zone policies, resource protection policies, and recommended CCT routes are summarized by specific plans in Appendix F: Plan & Policy Review. The long-term operations and maintenance (O&M) costs for a proposed trail system can often be a substantive barrier to trail development. The O&M capacity of implementing jurisdictions should be assessed before trail implementation is deemed feasible. Many O&M concerns could be addressed systematically among multiple jurisdictions through coordination of resources and formal agreements to jointly manage and maintain trail segments.

During stakeholder outreach for this Implementation Strategy, many agency staff noted that an interagency partnership has potential to help overcome resource and management shortfalls by sharing resources. A partnership between agencies or between an agency and other organizations involved in trail planning, construction, or operations and maintenance would require an agreement to establish clear commitments and roles for each partner. A memorandum of understanding (MOU) is the most common form of agreement serving this purpose. Below, several local ongoing agreements facilitating trail implementation and maintenance are reviewed. The first example, between the National Park Service and California State Parks, is an example of an agreement between a federal and state agency. The next example, between the State Coastal Conservancy, County of Humboldt and Redwood Community Action Agency, is a commitment to a partnership for funding, implementation and O&M responsibility.

The following sections describe programmatic examples of implementation and methods to address operations and maintenance.

Redwood National & State Parks

Background:

Lands owned and managed by the National Park Service and California State Parks are intertwined within the Redwood National Park (RNP) management area. All lands fall within the congressionally authorized boundary for RNP. The agencies are still able to cooperate and share resources under an agreement titled Cooperative Management Agreement between the National Parks Service and California Department of Parks and Recreation for The Cooperative Management of the Redwood National and State Parks (CMA), signed in June of 2007. The agreement terminates in 2015 unless it is amended or terminated before that time.

There are some aspects of compliance that cannot be addressed jointly, however. For example, during the recent process undertaken by Redwood National Park to produce the Redwood National and State Parks Trails and Backcountry Management Plan, State and National Parks were not able to be jointly addressed under the Biological Opinion of the USFWS. That limited the ability for the state and federal jurisdictions to cooperatively plan trails for implementation. The state would be required to undergo a separate environmental review process.

Elements of Cooperation:

- Adopt the designation “Redwood National and State Parks”
- Utilize the General Management Plan/General Plan of 2000 to jointly manage the Parks
- Commit respective resources to the common protection of the Parks’ resources
- Mutually adopt the Mission, Vision, and Guiding Principles framework of 1996
- Project the concept of cooperative management through all communication to the public and other agencies
- Establish cooperative operating procedures and practices to result in efficiencies and cost savings including training, permitting, and planning
- Savings shall be reinvested into the Parks
- Coordinate both agencies’ hierarchical support staff
- Develop coordinated work plans that reflect shared priorities
- Cooperate on the review of plans affecting the interests of RNP
- A summary of responsibilities delegated to California State Parks and Recreation are as follows:
- The State Parks Superintendent position will manage the day to day operations of the State Parks land
- Staff a resources management liaison position who will be responsible for coordinating resource management programs and projects
- A summary of responsibilities delegated to the National Park Service is as follows:

- The NPS Superintendent position will manage the NPS land on a day to day basis
- Provide office space and support to the state parks staff as available

Hammond Coastal Trail Operations & Maintenance Agreement

Background:

In 2006, the Natural Resources Services Division of Redwood Community Action Agency (RCAA) was awarded funding to construct a multipurpose and interpretive trail segment known as the “Hole in the Hammond,” and in 2007 updated an older operations and maintenance agreement with the County of Humboldt. This is a three-party agreement between the County of Humboldt, State Coastal Conservancy, and Redwood Community Action Agency.

Elements of Cooperation:

- County will maintain, at County expense and as per County Resolution No. 05-67, the trail, all fences, access gates, drainage facilities, the slope and the structural adequacy of the bicycle bypass trail and the pedestrian interpretive trail, vegetation planted to provide visual screening for property owners adjacent to the trail, and directional signs and interpretive displays.
- The County may be excused from its obligations for operation and maintenance in the event of a catastrophic natural event that exceeds the maximum repair cost (\$20,000) and renders maintenance and continued use of the Hammond Coastal Trail infeasible. The State Coastal Conservancy would then strive to provide sufficient funds to resolve the problem, and the County shall utilize those funds and continue to maintain the Hammond Coastal Trail.
- Suitability of Humboldt County as a trail manager with the ability to operate and maintain a constructed trail segment was demonstrated through Humboldt County Resolution No. 05-67, which certifies that the County of Humboldt will have sufficient funds to operate and maintain the new trail segment.

Bear Creek Greenway: Jackson County, OR

Background:

The Bear Creek Greenway is a publicly-owned trail corridor that extends through various municipalities in southern Oregon including Ashland, Talent, Phoenix, Medford and Central Point. The Greenway encompasses over 600 acres and although many segments of trail are complete, the entire Greenway will one day include a continuous twenty-one mile path along Bear Creek and through various parks from Ashland to Central Point, Oregon. The example Jackson County JPA can be found at the end of this Appendix.

Elements of Cooperation:

- Includes a Joint Management Agreement between the cities Ashland, Talent, Phoenix, Medford, Central Point and Jackson County. The agreement created an advisory body known as the Bear Creek Greenway Joint Powers Committee (JPC). Each jurisdiction requires one member for representation on the Bear Creek Greenway Joint Powers Committee.

- Created a Bear Creek Greenway Management Plan which includes details for operations, maintenance and future capital improvement projects along the trail. In addition, the municipalities created a Bear Creek Greenway Trail Major Maintenance Fund which defined the fiscal obligations of each partner.

Jackson County agreed to provide JPC support for the first three years and will be reimbursed through Bear Creek Greenway Trail Major Maintenance Fund and the Jackson County Pedestrian /Trails Fund. Subsequent staff support will be determined by the JPC with two thirds majority vote.

Regional Trail Management Case Studies

Humboldt County CCT planning, implementation, and management efforts can be informed by practices from other regional trail systems in the state. Although the rural and micro-urban landscape through which CCT development will occur throughout Humboldt County may be unique from other parts of California, a diversity of jurisdictions have formed strong agreements to ensure long-term viability of trail systems.

Santa Paula Branch Line Recreational Trail: Ventura County, CA

Background:

The Santa Paula Branch Line Recreational Trail is a proposed rail-with-trail along the Santa Paula Railroad Branch line between San Buenaventura and the Historic Rancho Camulos in Piru. The thirty-two mile right-of-way is owned by the Ventura County Transportation Commission. Implementation required strategic cooperation with several agencies, the public, and private landowners regarding location, construction, and design strategies.

Elements of Cooperation:

- The trail is overseen by the Ventura County Transportation Commission (VCTC) as the lead agency, in partnership with the County of Ventura and the incorporated cities of Fillmore, Santa Paula, and San Buenaventura through a Memorandum of Understanding (MOU).
- An advisory committee involving local governments, public commissions and committees, private landowners, advocacy groups, and others was formed to help with the development of policies within the trail master plan and to lead a thorough public outreach effort, including targeted outreach to the local agricultural community.
- The Ventura County Transportation Commission (VCTC) was the lead agency on development of a Master Plan. The VCTC, the County of Ventura and the three incorporated cities (Fillmore, Santa Paula, and San Buenaventura) have a MOU (Memorandum of Understanding) identifying a bicycle path as a potential use of the right-of-way and addresses finances, administrative structure, maintenance, encroachment permits, leases, license, and easements.
- Operation and maintenance will be performed by each jurisdiction respective of the trail segments in their communities.

Bay Area Ridge Trail: San Francisco Bay Area, CA

Background:

The Bay Area Ridge Trail (BART) is a proposed 550+ mile trail through nine counties along the ridgelines around the San Francisco Bay. The planning process began in 1987 with the formation of the Bay Area Ridge Trail Council, and today over 310 miles of trail have been dedicated. The trail, once completed, will be a continuous multi-use trail serving mountain bicyclists, equestrians, and hikers/trail runners. The BART is overseen by the Bay Area Ridge Trail Council (BARTC), a nonprofit organization. Cooperation over the implementation of BART revolves around individual responsibility of jurisdictions for design, construction, operation and maintenance of their respective segments. Project segments are not prioritized but are built based on funding availability, right-of-way availability/acquisition, and completion of planning, design, and environmental review.

Elements of Cooperation:

- The Bay Area Ridge Trail Council is advised by a standing Trail Committee. The committee is responsible for oversight of trail completion and for review of trail planning, acquisition, construction, and maintenance. Meetings are held ten times per year and membership includes representatives from each County Committee.
- The Bay Area Trail Council oversees planning and implementation in coordination with the cities, counties, park districts and other agencies with jurisdiction over the trail segments.
- Trail operation and maintenance varies by jurisdiction. In most cases, the agency with jurisdiction over the trail segment operates and maintains the trail. The BART Council maintains a large number of volunteers who assist with trail maintenance at ‘work parties.’

American River Parkway: Sacramento County, CA

Background:

The American River Parkway is a regional park and trail in a greenbelt extending twenty-nine miles from the Folsom Dam to the Old Sacramento neighborhood. The network includes eighty-two miles of maintained bicycle and equestrian trails. In 1962, the American River Parkway Plan was adopted in concept and in 1976 the Parkway Plan was adopted as an element of the Sacramento County General Plan. A variety of advisory groups were established to cooperate with jurisdictions involved during various periods of trail development.

Elements of Cooperation:

- Oversight to the project was provided cooperatively by a group including the Sacramento County Board of Supervisors, the Sacramento Recreation and Parks Commission and the American River Parkway Advisory Committee.
- The Sacramento County Department of Regional Parks is charged with coordinating with other jurisdictions during the planning and implementation of trails.
- Operation and maintenance of the parkway and trail is provided by the County of Sacramento Department of Regional Parks. This department cooperates with volunteer maintenance and

management groups, including the American River Parkway Foundation and the American River Parkway Volunteer Equestrian Trail Patrol.

San Luis Obispo Regional Trail Management: San Luis Obispo County, CA

Background:

San Luis Obispo County has a number of trails that pass through city, county, state, federal and private lands. Funding, maintenance, and management are tightly interwoven pieces in the successful management of the San Luis Obispo regional trail system.

Elements of Cooperation:

- The SLO County and SLOCOG collaborate on the administration, planning and implementation of trails and bikeways in the county. SLO County establishes policies and programs to provide and maintain parks, recreation, and natural areas in the county. SLOCOG reviews and advises on the approval of Bicycle Transportation Account (BTA) eligible bicycle plans, distributes federal transportation funding, is responsible for the long range intermodal transportation plan and the facilitation of regional planning, coordination, and technical assistance. SLOCOG staff attends the City of San Luis Obispo and SLO County Bicycle Advisory Committee meetings.
- In a cooperative effort with trail users and other members of the public, SLO County contracts for a Volunteer Services Coordinator. The coordinator manages volunteers to patrol trails, pickup litter and perform routine trail maintenance. The manager also organizes quarterly work crews, recruits and trains volunteers in county policy, organizes fundraising events, organizes and implements interpretative programs, and coordinates with Parks and Ranger staff.
- Joint Use Agreements and Operating Agreements are used to delineate the responsibilities for funding, maintenance and operation of facilities that cross jurisdictional boundaries. Often SLO County funds the acquisition and construction of a facility, with the partner agency committing to the maintenance and operation of the facility.
- Adopt-A-Park agreements allow volunteer groups to perform construction and maintenance activities. The agreements are activity, location, and time specific.

Interagency Coordination

It cannot be overemphasized that regional planning and coordination is essential to developing a successful regional trail system. The following discussion is adapted from the Humboldt County Regional Trails Master Plan and serves to facilitate a coordinated approach to regional trail system development and management.

Regional Collaboration

Successful implementation of the California Coastal Trail will require coordination between numerous agencies. Currently, regional collaborations on county-wide transportation system activities are informal. Trail planning, development, and management efforts could be strengthened through a formal, regional government planning

process that seeks to improve information sharing and build new collaborative partnerships. Common concerns, such as the operations and maintenance of the trail system, can more effectively be resolved when partnerships already exist and when decision-making can be coordinated by an entity that has the interests of all involved. Additionally, multi-agency support and collaboration will increase the region's capacity to leverage funds for local, tribal, county and state non-motorized transportation facilities.

As a Joint Powers Agency, Humboldt County Association of Governments (HCAOG) provides the appropriate membership representation for enhanced regional active transportation system collaboration. The HCAOG Board consists of representatives from the seven incorporated cities and the County of Humboldt. In addition the HCAOG Technical Advisory Committee consists of technical representatives from the cities, County, tribal governments, Caltrans, and transit authorities. HCAOG has been working to clarify its role as the Regional Transportation Planning Agency (RTPA) in regional trail system planning, financing, development, operations and maintenance. However, since the HCAOG joint power agreement does not address implementing, operating or maintaining trail systems, recent TAC and Board discussions have focused on how to coordinate and share responsibilities/resources for multi-jurisdictional trail segments and how to reduce the number of jurisdictions involved with day-to-day operations.

Implementing a regional active transportation system depends heavily on local municipalities adopting consistent non-motorized transportation plans, policies, and projects. Several local jurisdictions do not have trail policies, recognized trail projects, or identified financial support. Without adequate policy and a systematic way of identifying and developing projects, municipalities lack the necessary foundation to construct a regional trail network. Local jurisdictions should develop or incorporate non-motorized policy, projects, design guidelines, and other implementation strategies in their local plans. The Transportation and Circulation Elements of a general plan can establish goals and policies to guide trail and bicycle facility development. The Transportation and Circulation Elements can identify specific non-motorized transportation needs within the community and design an implementation strategy for facility improvements. Additionally, non-motorized transportation projects should also be programmed into Capital Improvement Plans.

Build Political Will

During the Humboldt County Regional Trails Master Plan process, local elected officials indicated a need for the community to support trail development to make trail funding a priority. One method to build countywide support for trails is through the “three-legged stool” model. The “three-legged stool” model is a metaphor for a partnership between elected officials, local government staff and independent advocates. Each partner has a passion, commitment, or area of expertise which complements that of the other partners, and together they support a common goal.

Columbia, Missouri provides an interesting case study for the use of the “three-legged stool” model. The approach is led by mayor Darwin Hindman, the Columbia/Boone County Department of Public Health and Human Services, and the PedNet Coalition. The three partners worked tirelessly in Columbia to change the transportation culture of the area from a car-centric culture to a non-motorized culture that encourages and facilitates bicycle and pedestrian oriented transportation.

PedNet, the independent advocates, engaged the community by recruiting volunteers, providing training, and encouraging participation in non-motorized transportation activities and events that attracted local media attention.

Mayor Hindman sponsored education initiatives that promoted walking and bicycling. Those education initiatives have included:

- Mayor’s Council on Physical Fitness and Health
- Mayor’s Challenge: Bike, Walk and Wheel Week
- Safe Routes to School Walking School Bus Program
- “Why do YOU do it?” Social Marketing Campaign.

The Columbia/Boone County Department of Public Health and Human Services established social marketing campaigns based on information collected from random surveys conducted by the department. The Department of Public Health also had institutional credibility, which allowed them to recruit families and children for non-motorized transportation programs (e.g., a Walking School Bus Program) and provide an advisory role in policy decisions.

The partnership or use of the “three-legged stool” model in Columbia has resulted in the passing of local complete streets legislation, a Safe Routes to School program, the successful acquisition of a \$22 million federal Non-motorized Transportation Pilot Program grant, and a silver level Bicycle Friendly Communities award from the League of American Cyclists.

The three-legged stool approach could assist Humboldt County in improving the health and mobility of its residents. Humboldt County has a plethora of independent advocates working in the community and with local governments (e.g., Redwood Community Action Agency, Green Wheels, Bigfoot Bicycle Club, Trails Trust of Humboldt Bay), and an active Public Health Department. Local jurisdictions that would like to build political support for the development of non-motorized facilities should cultivate a partnership with the Public Health Department and independent advocates.

Local Coordination

City and county trail planning, construction, and maintenance activities primarily require the oversight of the Planning and Public Works Departments. A Planning Department is generally responsible for planning trail infrastructure and support facilities and ensuring trail plans are consistent with provisions of the General Plan. Public Works Departments spearhead project-level trail implementation activities (i.e., reviews permits, prepares engineering specifications, inspects construction activities, and looks for opportunities to expand transportation systems and enhance the trail network). While these departments are both responsible for implementation of a trail, they generally operate separately and have unique perspectives on trail development opportunities and constraints.

In our discussions with various planning and public works staffs in the county, it is apparent that improved coordination between these two departments is needed in all jurisdictions and agencies. It was found that often there are multiple points of contact within each department and information is not shared within the department or with other departments. Staff within all departments involved in trail development should meet to coordinate and discuss potential project issues, timelines, and tasks, which will result in a greater understanding of the project requirements and increased efficiency within the jurisdiction or agency.

Develop a Regional Trail Identity

The California Coastal Trail system will pass through multiple jurisdictions and a number of unique environments. Without regional coordination and a unified vision, the trail system will be developed piecemeal. This bit-by-bit strategy can result in an incongruous trail network that is difficult for all trail users to access and understand. Creating a system-wide identity is an effective approach to crafting a cohesive trail system. The trail system should convey the unique community and environmental characteristics of the area. This includes providing recognizable themes and unique designs for trails and support facilities. There are several benefits to creating a cohesive trail identity.

- Unique trail amenity design templates, such as those for trailheads, signage, sign structures, and directional signage, can be constructed and utilized by local jurisdictions to reduce costs. In 2003, the State Coastal Conservancy and the Humboldt Bay Harbor Recreation and Conservation District funded the development of a Humboldt Bay Interpretive Signing Program. With input from local, state, federal and tribal governments, artistic templates and design guidelines were provided to all local governments. These templates have been used by the BLM in all of their interpretive signage around and beyond the bay region. A graphically-related system was produced and is currently being installed on the Hammond Trail.
- A unified CCT trail identity could help to facilitate and garner regional support.
- A regional approach to trail development could aid in leveraging state and federal financing for trail development.
- A functional and attractive system will also attract users, locally and from outside the area.



Sample Intergovernmental Agreement

INTERGOVERNMENTAL AGREEMENT FOR THE JOINT MANAGEMENT OF THE BEAR CREEK GREENWAY CORRIDOR

This Intergovernmental Agreement, hereinafter referred to as “Agreement”, is made and entered into this ____ day of _____, 200__, by and between Jackson County, acting by and through its Board of Commissioners, hereinafter referred to as “County”, and the cities of Ashland; Central Point; Medford; Phoenix; and Talent, acting by and through their respective elected officials, hereinafter referred to as “Cities.”

STATUTORY AUTHORITY

- A. By the authority granted in ORS 190.010 County and Cities may enter into cooperative Agreements for the performance of any or all functions and activities that Parties to the Agreement have authority to perform. By signature on this Agreement, Cities certify that they meet the criteria of ORS 190.010 to participate in this cooperative Agreement.
- B. By the authority granted in 190.010 County and Cities agree to form an advisory body, to be known as the Bear Creek Greenway Joint Powers Committee (JPC).

RECITALS

- A. WHEREAS, the Bear Creek Greenway is near completion; and
- B. WHEREAS, it is the desire of the County and the Cities of Ashland; Central Point; Medford; Phoenix; and Talent, to promote and maintain the Bear Creek Greenway as a whole unit from Nevada Street in Ashland to Pine Street in Central Point; and
- C. WHEREAS, effective, consistent management to promote and maintain the Bear Creek Greenway requires the coordinated participation, operation, and financial support of the County, and the Cities of Ashland; Central Point; Medford; Phoenix; and Talent; and
- D. WHEREAS, the County and the Cities of Ashland; Central Point; Medford; Phoenix; and Talent, hereinafter referred to collectively as the “Parties”, desire that an Intergovernmental Agreement be entered into in order to provide for the promotion and maintenance of the Bear Creek Greenway, hereinafter referred to as the “Greenway”.

NOW THEREFORE IT IS AGREED AS FOLLOWS:

1. The Parties enter into this Agreement to jointly provide for the consistent financial support, management, promotion and maintenance of the Greenway. The Advisory Committee formed by this agreement shall be called the Bear Creek Greenway Joint Powers Committee (JPC).
2. The governing body of each of the Parties shall select an elected official or designee to serve as a representative on the JPC. Each governing body shall provide to JPC staff official notification of the appointment; such notification shall be retained in the files of JPC. The JPC shall elect, by a majority of the members present, a chair and a vice chair on a yearly basis. The first JPC meeting will be held within thirty (30) days after the Joint Powers Agreement is adopted by all parties. The JPC shall establish a quarterly meeting schedule, or a more frequent meeting schedule if necessary, and provide proper notice of said meetings to the public in accordance with the instructions of the chair and applicable law. Staff support will be provided in accordance with Exhibit A, Table II, column B.
3. No decision can be made by JPC unless a quorum is present. A majority of the JPC constitutes a quorum for the transaction of JPC business. All decisions made by JPC shall be made per simple majority of members present vote, unless otherwise provided herein.

4. Each Party shall pay its annual obligation for major maintenance and staffing of JPC as shown in Exhibit A, Table II, Column C, to the Bear Creek Greenway Trail Major Maintenance Fund, which will be handled as a separate and distinct set of accounts within Jackson County's Bear Creek Capital Project Fund.. Initial payments shall be made to Jackson County within six (6) months of the signing of this Joint Powers Agreement or no later than August 15, 2008. Subsequent annual payments shall be made to Jackson County on or before August 1 of each of the following years. The Jackson County Bear Creek Capital Project Fund is established within the Jackson County budget. Jackson County will have fiduciary responsibility for these Funds. Expenditures from these Funds will only be made by approval of the JPC by a two-thirds majority vote of the JPC representatives.
5. Each jurisdiction will be responsible for regular annual funding for operation and maintenance of the trail within their respective city limits or boundaries approved by JPC as shown in Exhibit A, Table I, Column D. Each year the jurisdictions shall strive to appropriate at least the same amount. Regular, routine maintenance is described in the Bear Creek Greenway Management Plan, which is herein incorporated in its entirety by reference, and footnote 2 of Exhibit A.
6. If any Party expends funds for major maintenance without JPC approval or authority, the Party shall defend, indemnify, and hold harmless the Parties and their officers, employees, and agents from all claims and resulting damages, judgments, penalties, attorney fees, litigation expenses, arbitration expenses, and other expenses and liabilities that arise from unapproved or unauthorized act or acts.
7. At three (3) year intervals, the Bear Creek Greenway Management Plan and the Funding Table (Exhibit A) will be examined and revised by JPC representatives as necessary and approved by a two-thirds majority vote of JPC representatives. Any revisions shall be forwarded to Jackson County and to the Cities (to the Parties) for approval by their respective governing bodies. That approval shall be communicated to JPC in writing and maintained in JPC files maintained by JPC staff; the staff is described in paragraph 8, below.
8. For the initial three (3) year period, Jackson County will provide JPC staff support. Jackson County shall be reimbursed for the cost of the position from the Bear Creek Greenway Trail Major Maintenance Fund and the Jackson County Pedestrian/Trails Fund as reflected in Exhibit A, Table II. Subsequent funding for staff support will be negotiated among the member jurisdictions and approved by a two-thirds majority vote of JPC.
9. The JPC shall, on an annual basis, establish a priority schedule for major maintenance projects.
10. For the purposes of this Agreement, operational guidelines, capital improvement projects and major and ordinary maintenance activities are described in the Bear Creek Greenway Management Plan, 2005-2010.
11. Any of the parties to this Agreement, with approval of JPC by majority vote of all representatives, may act as a project administrator to hire contractors to perform major maintenance and capital improvements for projects identified on a JPC priority list. Project Administrators are required to follow all public contracting rules and regulations. Up to five percent (5%) of project costs will be reimbursed to the project administrator. Project costs include preliminary engineering (PE), construction engineering (CE), and construction costs. A report of actual project costs will be presented to the JPC.
12. This Agreement shall be of perpetual duration unless any Party gives written notice to each other Party of its election to withdraw at least one hundred and eighty (180) days prior to the due day of an annual payment as described in paragraph 4, above. If any of the parties withdraws from the Agreement, a majority of the remaining JPC members will review the Agreement and submit recommended revisions to Exhibit A; those recommended revisions shall be forwarded to each governmental body for approval. The remaining JPC members may also decide to recommend disbanding the JPC and terminating this Agreement.

- 13. Cash payments to the Major Maintenance Fund are shown in Exhibit A. Table II, Column C attached.
- 14. Notwithstanding any other provision of this Agreement to the contrary, in the event insufficient funds are appropriated for the payments under this Agreement and the member has no other lawfully available funds, then the member may terminate this Agreement at the end of its current fiscal year, with no further liability or penalty to JPC. The member shall deliver written notice to JPC of such termination no later than thirty (30) days from the determination of non-appropriation.
- 15. Each Party to this Agreement shall maintain self insurance or insurance coverage.
- 16. Subject to the limitations and conditions of the Oregon Tort Claims Act, ORS 30.260 *et seq.*, and Article XI, Section 7 of the Oregon Constitution, each Party to this Agreement shall hold each other harmless from and against liability for damage to life, person, or property arising solely from the negligence of any one or combination of Parties, their respective officers, divisions, agents, employees, and members in providing services to any Party under this Agreement.
- 17. This Agreement may not be amended, changed or modified in any way, except by written Agreement signed by all Parties hereto.
- 18. This Agreement contains the entire Agreement between the Parties hereto and supersedes any and all prior express and/or implied statements, negotiations and/or Agreements between the Parties, either oral or written.

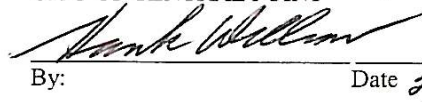
IN WITNESS WHEREOF, the Parties hereby enter into this Agreement.

Each Party, by signature below of its authorized representative, hereby acknowledges that it has read this Agreement, understands it, and agrees to be bound by its terms and conditions. Each person signing this Agreement represents and warrants to have the authority to execute this Agreement.

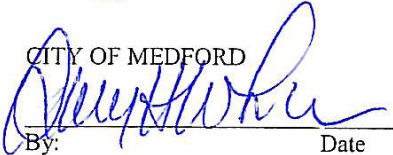
CITY OF ASHLAND

 1/31/08
By: _____ Date

CITY OF CENTRAL POINT

 2/14/08
By: _____ Date

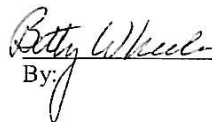
CITY OF MEDFORD


By: _____ Date

CITY OF PHOENIX

 1/8/08
By: _____ Date

CITY OF TALENT

 1/16/08
By: _____ Date

JACKSON COUNTY

 12/12/07
By: **DANNY JORDAN** Date
County Administrator

APPROVED:


Allie O'Connor
Assistant County Counsel

Exhibit A. Bear Creek Greenway Funding Table

I. Estimated Jurisdiction Maintenance			
	Population of Greenway users (2005 PSU estimates)	Estimated mileage	D Estimated cost to maintain section of trail within each jurisdiction...
Jackson Co.	(1) 59,975	6.0	\$39,600
Medford	70,860	6.9	\$45,540
Phoenix	4,660	1.6	\$10,560
Central Point	15,645	1.5	\$9,900
Ashland	20,880	1.9	\$12,540
Talent	6,255	2.0	\$13,200
Totals	178,275	19.9	\$131,340

(1) The Jackson County population excludes Butte Falls, Eagle Point, Gold Hill, Jacksonville, Rogue River, and Shady Cove because residents of these cities are less likely to use the Greenway. Residents of these cities and other rural residents might use the Greenway occasionally, but less often than urban residents.

(2) Estimated cost is \$6,600 per mile for regular, routine maintenance, which includes activities such as mowing vegetation, leaf blowing, clearing of graffiti, shoulder repair, sweeping, lighting, signs, pavement marking, restroom maintenance, bollards, bike racks, crack sealing, etc. It does not include asphalt replacement or other major maintenance. This cost is borne entirely by the jurisdictions, and may vary.

II. Contributions for Joint Powers Major Maintenance and Staff				
	A	B	C (A+B)	E (C+D)
	Population of Greenway users (2005 PSU estimates)	Estimated mileage	Amount to contribute to major maintenance fund (3)	Amount to contribute to staff the Joint Powers(4)
			Total amount for major maintenance and staff	Total amount to budget for (standard + major maintenance + staff)
Jackson Co.	(1) 59,975	6.0	\$22,851	\$64,851
Medford	70,860	6.9	\$28,381	\$30,981
Phoenix	4,660	1.6	\$0	\$2,600
Central Point	15,645	1.5	\$6,437	\$9,037
Ashland	20,880	1.9	\$9,331	\$11,931
Talent	6,255	2.0	\$0	\$2,600
Totals	178,275	19.9	\$67,000	\$122,000
				\$104,451
				\$76,521
				\$13,160
				\$18,937
				\$24,471
				\$15,800
				\$253,340

(3) Major maintenance includes asphalt repair or replacement costs based on actual costs from 2005, funding for the Pavement Management Program, which evaluates the condition of the entire Greenway trail, and other projects prioritized by the Joint Powers Committee. How much each jurisdiction is asked to contribute is based on the number of miles they will maintain within their UGB, their population, and other factors as reflected on Exhibit B.

(4) The County will provide an employee for staffing the Greenway for 24 hours per week. The County will pay \$42,000 for labor and absorb the overhead cost for housing the employee (estimated at \$18,700 per year). The total labor cost for staffing is \$55,000. The 5 cities will each pay \$2,600 of the remaining \$13,000 labor. Costs will be re-evaluated, and may be adjusted as necessary, on three (3) year intervals.

Exhibit B. Calculations

	A	B	C	D	E (D-C)	F	G	H (E-G)
	Population of Greenway users (2005 PSU estimates)	Estimated mileage	Cost to maintain Gwy within jurisdiction (\$6,600 x estimated mileage)	Predicted maintenance cost based on population (jurisdiction population x cost per user)	Amount to contribute to major maintenance fund (predicted maint. by pop. minus maintenance cost per mile)	Percent of mileage within each jurisdiction calculated without Talent and Phoenix	Amount to subtract if Talent and Phoenix pay \$0 (vs. receiving payment). Split \$11,617 by % of mileage each city is responsible for.	Amount to contribute to major maintenance fund with Talent and Phoenix paying \$0
Jackson County	59,975	6.0	\$39,600	\$66,725	\$27,125	36.8%	-\$4,275	\$22,851
Medford	70,860	6.9	\$45,540	\$78,835	\$33,295	42.3%	-\$4,914	\$28,381
Phoenix	4,660	1.6	\$10,560	\$5,184	-\$5,376	NA	\$0	\$0
Central Point	15,645	1.5	\$9,900	\$17,406	\$7,506	9.2%	-\$1,069	\$6,437
Ashland	20,880	1.9	\$12,540	\$23,230	\$10,690	11.7%	-\$1,359	\$9,331
Talent	6,255	2.0	\$13,200	\$6,959	-\$6,241	NA	\$0	\$0
Totals	178,275	19.9	\$131,340	\$198,340	\$67,000	100.0%	-\$11,617	\$67,000
Amount for major maintenance Fund =			\$67,000					
Total needed for maintenance =			\$198,340					
Maintenance cost per user (total maintenance cost/total population)			\$1.11					
Amount for Major Maintenance Fund								
Annual Needs	Pavement Management Program - 1st year	Asphalt Repair at \$14.67 per sq. ft. (3,000 sq. ft./year)	Resurfacing (approximately 1 section per year)	Annual Amount Needed	First year			
1st year	\$7,900	\$44,000	\$20,000	\$71,900				
2nd year	(not needed annually)	\$44,000	\$20,000	\$64,000	2nd year			
every 3rd year	\$2,500	\$44,000	\$20,000	\$66,500	3rd year			
Estimated amount needed (rounded average)				\$67,467	Average			

Appendix K: Alignment Evaluation

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Appendix K: Alignment Evaluation

The potential preferred trail alignments for the CCT were evaluated based on a system designed to determine whether selected routes were compatible with the vision for the CCT. Previous planning efforts have established guiding goals/principles for development of the CCT. California Coastal Trail alignments should provide:

- A scenic experience, as close to the shore as possible
- Maximum access for a variety of non-motorized uses
- Connectivity to destinations and amenities along the coast and local communities
- Separation from motorized traffic where possible
- Trail designs that will minimize impacts on natural habitats, cultural and archeological resources
- Respect for private property

Route selection confirmation was based on these broad goals and trail user safety. Each alignment scored either positive (1) or neutral (0) for each category.

Scenic Quality and Experience

Alignments were scored based on proximity to the coast and whether they offer a coastal experience. Those alignments that provide direct access to the coast line and/or scenic vistas along the length received a positive ranking. Alignments without direct access, but offering some ocean views and or a very attractive alternative (such as coastal redwoods) received a positive score as well. Alignments with no ocean access, limited or no view, and limited scenic amenities received a neutral score.

Ownership/Private Property Impacts

Alignments were scored based on their proximity to parcels owned by public entities and anticipated impact on private property. Trail proximity to private property is often a sensitive topic with landowners – it is important to gain input from land holders to ensure trail designs and location meet local needs, do not create maintenance or management issues, and provide positive experiences for neighbors. Alignments that completely occur within publicly held parcels are given a positive score. In addition, alignments that occur partially on public land or rights-of-way and have a known private interest in a trail corridor received a positive score. Alignments where there was no public ownership and an unwilling or unknown private landowner received a neutral score.

Universal Access

Alignments were scored based on their capacity to serve the widest range of users: pedestrians, equestrians, bicyclists of varying abilities, and those with physical impairments. Alignments that allowed for routes that would serve all user types as well as those that would serve at least two different types of users well received a positive score. Those alignments that would accommodate only one user type received a neutral score.

Environmental Impact

Alignments were scored based on their potential impact to environmentally sensitive areas. Alignments not impacting sensitive areas and those that occur within or near sensitive areas but are proposed to be designed sensitively (i.e. the use of boardwalk through a wetland area) or mitigate for impact received a positive score. Alignments in or near wetlands, threatened and endangered species habitat or other sensitive areas were considered to have a potentially negative impact and thus received a neutral score.

Cultural Resources Impact

Alignments were scored based on their potential impact to sensitive cultural or archeological sites. Alignments that do not cross sensitive areas or where there is a clear mechanism to mitigate or avoid impact received a positive score. Those alignments that directly cross through sensitive sites were considered to have a potentially negative impact and thus received a neutral rating.

Connectivity

Alignments were scored based on whether the trail segment represents a significant link in the Coastal Trail or provides a key connection from the main trail to a regional destination, trail or amenity. Any alignment that provides a link in the main CCT route is scored positively. Alignments that are not integral to the primary route and do not provide a direct connection to other primary route segments received a neutral score.

Safety

Alignments were scored based on their anticipated relationship between trail users, motor vehicles, and other environmental hazards. Safety is a significant concern for creating an ideal trail alignment and the criterion aims to achieve a safe experience for trail users. Alignments that do not cross roads and are buffered from roadways/railroad for the entire length receive a positive score; alignments that are adjacent to very low volume roadways received a positive score. Alignments with a challenging road crossing or known marine hazard received a neutral score; alignments in the road ROW also received a neutral score.

Table K-1: Alignment Analysis North

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
North	Segment	Street or Alignment											Notes
N1. Redwood National Park and Prairie Creek Redwoods	N1.01	Red Park Road/Coastal Drive. Carruthers Cove Trailhead to Newton B Drury	0	1	1	1	1	1	1	6	Y	E	Existing - do not forward to implementation
	N1.02	Carruthers Cove Trailhead to Beach. Along beach to Butler Camp. From Butler Camp to the north end of Davison Road	1	1	1	1	1	1	0	6	Y	E	Existing - do not forward to implementation
	N1.03	Beach route: access near the north end of Davison Road to the Skunk Cabbage Trail Trailhead where trail leaves the beach	1	1	1	1	1	1	0	6	Y	E	Existing - do not forward to implementation

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
North	Segment	Street or Alignment											Notes
N1.Redwood National Park and Prairie Creek Redwoods (Continued)	N1.04	From the existing Skunk Cabbage Trail, onto proposed Redwood National Park Trail "X" to intersection with US 101. Cross 101, continue on trail/old haul road to Bald Hills Road, connect to the west with US 101	1	1	0	0	1	1	1	5	Y	Y	Provides option for trail users to avoid safety concerns on US 101. Much better scenic experience. Uses levee and supports local community connections.
	N1.05	Skunk Cabbage Trail from where trail is accessed from the beach to US 101 access point.	1	1	1	1	1	1	1	7	Y	E	Existing - do not forward to implementation
	NB1.01	Newton B Drury Parkway from northern intersection with US 101, through Prairie Creek State Park, to south intersection with US 101. Continue to Skunk Cabbage trail access.	0	1	1	1	1	0	1	5	Y	E	Bicycle Alternative - existing part of the PCBR

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
North	Segment	Street or Alignment											Notes
N2. Orick	N2.01	Multipurpose trail on north Redwood Creek levee to the US 101 bridge	0	1	1	1	1	0	0	4	Y	Y	Safety concerns associated with sharing roadway with heavy traffic. Particular concerns south of the Skunk Cabbage trail access road to Orick. Creates a gap for pedestrians
	N2.02	Proposed multipurpose trail on the east side of US 101 along Prairie Creek to the north Redwood Creek levee.	1	1	0	0	1	1	1	5	Y	Y	Uses levee and supports local community connections.
	N2.03	South levee to Redwood National Park Visitor Center	1	1	1	1	1	1	1	7	Y	Y	Caltrans ROW may be impacted. Alignment along the edge of Prairie Creek may need significant environmental mitigation
	N2.04	On the beach from the Redwood National Park Visitor Center to the south end of Freshwater Lagoon	1	1	1	1	1	0	0	5	Y	Y	Beach connection.
	NB2.01	From US 101 bridge over Redwood Creek to south end of Freshwater Lagoon.	1	1	1	1	1	0	1	6	Y	E	Bicycle Alternative - existing part of the PCBR
	NB2.02	Eris Ln to Old State Hwy around the east side of Freshwater Lagoon to US 101	1	0	1	1	1	0	0	4	Y	N	Hilly bike route. Problem intersection with US 101 on south end. Lagoon route with direct coastal access is more desirable for the CCT.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
North	Segment	Street or Alignment											Notes
N3. Lagoons/Patrick's Point	N3.01	North end of the Gyon bluffs to the north end of Stone Lagoon	1	1	1	0	0	0	0	3	N	N	Resource concerns. Major engineering needed. Not in current parks trails plan. Safety issues with steep cliff face.
	N3.02	Hiking trail along midslope contour of Gyon Bluffs above US 101 from south end of Freshwater Lagoon to Stone Lagoon access road	1	1	1	1	1	0	1	6	Y	Y	Very physically constrained area. Potential impact to cultural sites.
	N3.03	From the Stone Lagoon access road, along beach west of Stone Lagoon. Continue around west side of lagoon to existing trail from the environmental camp to Dry Lagoon beach	1	1	1	1	1	0	1	6	Y	Y	Safety concerns associated with breach of the lagoon in winter months - but there is no other good alternative that provides coastal access.
	N3.04	On beach from Dry Lagoon access to south end of Big Lagoon	1	1	1	1	1	0	1	6	Y	Y	Safety concerns associated with breach of the lagoon in winter months - no other good options on the east side of the lagoons.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
North	Segment	Street or Alignment											Notes
N3. Lagoons/Patrick's Point (Continued)	N3.05	On beach from south end of Big Lagoon to Agate Beach to trails south end of Agate Beach and Rim Trail in Patrick's Point State Park	1	1	1	1	1	1	1	7	Y	Y	Well used beach route. Parking, interpretation, and access to other trails available at both ends.
	N3.06	Follow Park Rd to connection with Old State Hwy. On Old State Hwy ROW along bluff to junction with US 101 near Kane Rd	1	1	0	0	1	0	1	4	N	N	Possible erosion issues. Would likely need private property agreements near Kane Rd.
	N3.07	End of Roundhouse Creek Rd on to Old State Hwy right-of-way and unofficial trail to Patrick's Point Drive	1	1	0	1	1	1	1	6	Y	N	Provides a good beach alternative, but is not a priority for State Parks. The route from Big Lagoon to Agate is a well-used stretch of beach with amenities at both ends.
	N3.08	Rim Trail through Patrick's Point State Park	1	1	1	1	1	1	1	7	Y	E	Existing - do not forward to implementation
	NB3.01	On US 101 from intersection access road at south end of Gyon Bluffs to intersection with Big Lagoon Park Road	1	1	1	1	1	0	0	5	Y	E	Bicycle Alternative - existing part of the PCBR
	NB3.02	US 101 from Big Lagoon Park Road to exit for Patrick's Point Drive	0	1	1	1	1	0	0	4	Y	E	Bicycle Alternative - existing part of the PCBR

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
North	Segment	Street or Alignment											Notes
N4. Trinidad	N4.01	Patrick's Point Drive near park entrance to Stagecoach Rd. Continue on west Stagecoach to Trinidad State Beach Elks Head/College Cove parking lot at Trinidad State Beach	0	1	1	1	1	0	1	5	Y	Y	Shared roadway. No alternative
	N4.02	Hiking trail through Trinidad State Beach that connects to beach and Trinidad Harbor	1	1	1	1	1	1	0	6	Y	Y	Confirm that alignment on map is correct. NRS better description of start/finish?
	N4.03	Trinidad Harbor south to the signed Galindo Street Trail; Van Wycke Street onto Edwards Street then to the Axel Lindgren Trail near Memorial Lighthouse and down to Old Home Beach	1	1	1	0	1	1	0	5	Y	Y	Possible slumping along access from Harbor to Van Wycke. Avoids pitch point on beach and possible impact to cultural resources in the beach/bluff area.
	N4.04	Along Trinidad Harbor connecting to Home Beach and to Parker Creek Trail connection	1	1	0	1	0	1	0	4	N	N	Concerns on cultural resources. Need possible stairs or other site modification to create access around pitch point. Erosion and sea level could impact trail improvements.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
North	Segment	Street or Alignment											Notes
N4. Trinidad (Continued)	N4.05	Main Street to View Avenue to left at Parker Creek Drive. Continue to end.	0	1	1	1	1	1	1	6	Y	N	Coastal access. Provides additional pedestrian connection to beach.
	N4.06	From Old Home Beach at the base of the Axel Lindgren Trail to Parker Creek Trail and the Groth Lane connector to Scenic Drive	1	1	1	1	1	1	1	7	Y	Y	On beach and connecting to neighborhood access points.
	N4.07	Scenic Drive from Groth Lane south to US 101	1	1	1	1	1	0	1	6	Y	Y	Shared roadway. No alternative
	NB4.01	Starting at College Cove/Elk Head parking area off Stagecoach Road. Stagecoach Rd to left on Main St and right on to Scenic Drive to Groth Lane.	0	1	1	1	1	1	1	6	Y	E	Bicycle Alternative - existing part of the PCBR

Table K-2: Alignment Analysis Central

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
Central	Segment	Street or Alignment											Notes
C1. Little River/Clam Beach/Hammond Trail	C1.01	US 101 from Scenic Drive on ramp to Crannell Drive off ramp	0	1	1	1	1	0	0	4	N	N	The bridge over the Little River does not have adequate non-motorized facilities, high traffic speeds, base of hill. Not recommended for pedestrians and is currently a gap.
	C1.02	End of Scenic Drive along bluff and down to Little River	1	1	1	0	0	1	1	5	Y	Y	Private property acquisition and potential environmental impacts. Private landowners interested in selling. Noted as significant community priority during outreach. Provides possible alternative to crossing on the existing Caltrans bridge
	C1.03	Little River Crossing/Bridge	1	1	1	0	0	1	1	5	Y	Y	Equestrians and pedestrians can connect seasonal to Clam Beach via Moonstone Beach. This is a critical crossing.
	C1.04	From US 101 weigh station access along State Parks' proposed trail near south end of Little River Bridge through Little River State Beach dunes to near access point at Crannell Drive interchange.	1	1	1	1	1	1	0	6	Y	Y	State Parks is actively working on developing this trail system. Access points near the Caltrans ROW at the Little River Bridge are not yet determined. This should be the preferred future route off the Hwy.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
Central	Segment	Street or Alignment											Notes
C1. Little River/Clam Beach/Hammond Trail (Continued)	C1.05	Dune trail in Little River State Beach, from access point near Crannell Drive interchange to State Parks' dune trail.	1	1	1	1	1	1	1	7	Y	Y	State Parks is actively working on developing this trail system. Wants it designated as the coastal trail.
	C1.06	On Clam Beach Drive beginning at Little River State Beach parking area to the connection with Hammond Trail.	1	1	1	1	1	0	1	6	Y	Y	Shared use roadway. Relatively low volume. Already used by cyclists and pedestrians regularly.
	C1.07	Hammond Trail from the access point on Clam Beach Drive to south end of the Hammond Bridge	1	1	1	1	1	1	1	7	Y	N	Existing - do not forward to implementation
	C1.08	Beach route from Little River to Clam Beach US 101 access	1	1	1	1	1	1	1	7	Y	N	Starts from the south of the Little River. Equestrians can cross, some times of year difficult for pedestrians. State Parks wants dune trails to be designated as the CCT.
	C1.08	Hammond Bridge	1	1	1	1	1	1	1	7	Y	Y	Existing - but in disrepair. It is a critical link.
	CB1.01	Clam Beach Drive from US 101 Crannell Exit to the Little River State Beach parking area.	1	1	1	1	1	1	1	7	Y	E	Bicycle Alternative - existing part of the PCBR

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
Central	Segment	Street or Alignment											Notes
C2. Arcata Bottoms - North	C2.01	Coast access. West on Mad River Road from the Hammond Bridge to the Mad River Beach.	1	1	1	1	1	0	1	6	Y	Y	Shared roadway out to beach route. Will become coastal access if not selected as the primary route.
	C2.02	Mad River Road south from the Hammond Bridge to the intersection of the Upper Bay Road and Lanphere Road	0	1	1	1	1	0	1	5	Y	Y	Shared roadway
	C2.03	On beach: Start from Mad River Beach access to access in Manila	1	1	1	1	1	1	1	7	Y	N	Change to coastal access. Does not provide a through route. Community connections are a significant priority - other routes more valuable and will connect to coastal access points.
	C2.04	Trail on rail ROW from Mad River Road to Foster Ave	0	1	0	1	1	1	1	5	Y	N	Private property impacts. Ranks well in meeting other goals for the trail. Should be considered in the future as an option to providing a trail separated from auto traffic.
	C2.05	Miller Lane to Heindon Rd to Janes Road	0	1	1	1	1	0	1	5	Y	N	Difficult intersection for northbound travelers at Janes and Heindon. Increased distance on higher volume roads for trail users.
	C2.06	Lanphere Road to Seidel Rd, ending at Foster Ave.	0	1	1	1	1	0	1	5	Y	Y	Shared roadway

Central	Segment	Street or Alignment	Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	Notes
C2. Arcata Bottoms – North (Continued)	C2.07	Upper Bay Road to Janes Rd to Spear Ave to Alliance and connect to Rail with Trail at 17th and Alliance	0	1	1	1	1	0	1	5	Y	N	Shared roadway
	C2.08	Foster Ave to Jackson Ranch Road	0	1	1	1	1	0	1	5	Y	Y	Connection to Manila route
	C2.09	Foster Avenue from intersection with Seidel to Q street to 17th Street	0	1	1	1	1	0	1	5	Y	Y	Avoids major intersection and travel along higher volume roads

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
Central	Segment	Street or Alignment											Notes
C3. Humboldt Bay/Manila	C3.01	State Route 255 - Jackson Ranch Road to L Street	0	0	1	1	1	0	1	4	N	N	Not an important connection
	C3.02	State Route 255 - Jackson Ranch Road over Mad River Slough Bridge to Young Lane	0	1	1	1	1	0	1	5	Y	Y	State Route 255 will have improved shoulders that will better accommodate bikes and pedestrians.
	C3.03	Multipurpose trail on rail corridor from Jackson Ranch Road over Mad River Slough Bridge to Young Lane	0	1	1	1	1	0	1	5	Y	Y	Provides an alternative to the State Route 255 and motorized traffic
	C3.04	Multipurpose trail through Manila along the west side of State Route 255 right-of-way from Young Lane to South Peninsula Drive.	1	1	1	1	1	1	1	7	Y	Y	Provides both Bay and Coastal access points. Provides connection from multi-use trail in Manila and connects to bridge. Should be considered for a future separated multi-use path when bridge is upgraded to better serve bicyclists and pedestrians.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
Central	Segment	Street or Alignment											Notes
C3. Humboldt Bay/Manila (Continued)	C3.05	State Route 255 from South Peninsula Drive to the Samoa bridge approach.	1	1	1	1	1	0	1	6	Y	Y	Connection from multi-use trail in Manila to bridge. Should be considered for a future separated multi-use path when bridge is upgraded to better serve bicyclists and pedestrians.
	C3.06	Samoa Bridge	1	1	1	1	1	0	1	6	Y	Y	Critical link for any western coast access on the north side. Expensive bridge retrofit.
	C3.07	Old Samoa Road from V Street to Jackson Ranch Road	0	0	1	1	1	0	1	4	N	N	Does not provide a direct connection and is just another shared road - not directly on the bay or coast.
C4. Arcata/Eureka Corridor (Humboldt Bay)	C4.01	On rail corridor from 17th Street and Alliance Road to South G Street near the Arcata Water Treatment Plant.	0	1	1	1	1	1	1	6	Y	Y	Provides access to amenities in Arcata and connection to Arcata Marsh.
	C4.02	Rail-trail from South G in Arcata to Bracut	1	1	1	0	1	1	1	6	Y	Y	Provides access to bay resources.
	C4.03	On US 101 from South G on ramp to Bracut	0	1	1	1	1	0	1	5	Y	N	Traffic volumes and speeds and lack of grade separation greatly diminish experience and user safety.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
Central	Segment	Street or Alignment											Notes
C5. Eureka Waterfront	C5.01	Rail-Trail from Bracut to Y Street to T Street	1	1	1	0	1	1	1	6	Y	Y	Provides access to bay resources and connection between communities.
	C5.02	US 101 from Bracut to V Street. West to 1st to T street and connect to Waterfront Drive	1	1	1	1	1	0	1	6	Y	N	Traffic volumes and speeds and lack of grade separation greatly diminish experience and user safety.
	C5.03	T street to Front Street to Waterfront trail	1	1	1	1	1	1	1	7	Y	Y	Connects rail trail with the multiuse waterfront trail.
	C5.04	Trail along the bay from Y street connection with proposed rail trail to existing waterfront trail	1	1	1	1	1	0	1	6	Y	N	May have resource issues. Include as potential coastal access.
	C5.05	Existing Waterfront trail from near the foot of T street to the end of J St	1	1	1	1	1	1	1	7	Y	N	Existing as a trail - the City of Eureka has a grant to improve function and upgrade to multi-purpose
	C5.06	Proposed boardwalk from J Street to G street	1	1	1	1	1	1	1	7	Y	Y	Toxic site. Cleaning a priority. Significant interest in completing section of trail.
	C5.07	F Street to C Street (boardwalk)	1	1	1	1	1	1	0	6	Y	E	Existing – no implementation
	C5.08	On road from M to J and multiuse from J to H	1	1	0	1	1	1	1	6	Y	N	Make connector - other alternatives through the waterfront are community priority.

Central	Segment	Street or Alignment	Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	Notes
C5. Eureka Waterfront (Continued)	C5.09	Multipurpose trail in rail ROW along Waterfront Drive from C Street to Del Norte Street	1	1	1	1	1	0	1	6	Y	Y	Priority for the city. Plans in place.
	C5.10	Multi-purpose trail loop along Marina Way around Wharfinger Building	1	0	1	1	1	1	1	6	Y	N	Should be a coastal access point - rather than primary trail
	CB5.01	Waterfront Drive to L Street. Proceed South on L to Second Street. Travel on Second from L to H Street; Take H Street north to 1st Street; 1st Street to Waterfront Drive at the foot of C Street	0	1	1	1	1	0	1	5	Y	Y	Bicycle Alternative

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
Central	Segment	Street or Alignment											Notes
C6. Palco Marsh/Elk River	C6.01	Palco Marsh from Del Norte Street to the north end of Bayshore Mall	0	1	1	1	1	1	1	6	Y	E	Existing - could use upgrades.
	C6.02	North end of Bayshore Mall to Truesdale	0	1	1	1	1	1	1	6	Y	Y	Priority for the city. Plans in place.
	C6.03	Truesdale to Hilfiker Lane	1	1	1	1	1	1	1	7	Y	Y	Priority for the city. Plans in place.
	C6.04	Parcel 4 hike loop behind Bayshore Mall	1	0	1	1	1	1	0	5	Y	Y	Priority of the Audubon Society.
	C6.05	Hilfiker Lane to Elk River Wildlife Area and Park and Ride at Pound Rd	1	1	1	1	1	1	1	7	Y	Y	Priority for the city. Plans in place.
C7. South Bay	C7.01	Multipurpose trail in rail ROW from Pound Rd to Tompkins Hill Rd	1	1	1	1	1	0	1	6	Y	Y	King Salmon/Fields Landing residents use this route. Provides multiple access points and good user experience.
	C7.02	End of Pound Rd to US 101 intersection - on US 101 to Eel River Drive to intersection with Cannibal island road	0	1	1	1	1	0	0	4	N	N	Traffic volumes and speeds and lack of grade separation greatly diminish experience and user safety.
	C7.03	Tompkins Hill Rd from northern US 101 interchange to Hookton Rd/US 101 southern interchange	0	1	1	1	1	0	1	5	Y	Y	Lower traffic volumes and opportunities for rural scenic quality make this a better alternative to US 101.

Table K-3: Alignment Analysis South

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	Notes
South	Segment	Street or Alignment											
S1. Loleta/Eel River	S1.01	Eel River Drive from US 101 to Cannibal Island Rd	0	1	1	1	1	0	1	5	Y	Y	Shared roadway.
	S1.02	Multipurpose trail on rail corridor from the northern end of Tompkins Hill Road to Eel River Drive in Loleta	0	1	1	0	1	1	1	5	Y	Y	Provides an alternative to an on road route. Better trail user experience. Some sections have unknown feasibility.
	S1.03	Cannibal Island Road from Eel River Drive to Cock Robin Island Rd.	0	1	1	1	1	0	1	5	Y	Y	Change to coastal access. Without Eel river crossing this won't work for the primary route.
	S1.04	Cock Robin Island Road from Cannibal Island Rd to end at south Eel River crossing	1	1	1	1	1	1	1	7	Y	Y	Change to coastal access. Without Eel river crossing this won't work for the primary route.
	S1.05	North bank of Eel River (End of Cock Robin Island Rd) to Dillon Rd	1	1	1	0	1	0	1	5	Y	N	Crossing with seasonal bridge has unknown feasibility and possible habitat/nesting impacts for snowy plover.
	S1.06	Multipurpose trail on rail corridor from Loleta to Fernbridge	0	1	1	1	1	1	1	6	Y	Y	Provides an off road option. Better trail experience and safety. Future preferred route.
	S1.07	Eel River Drive from Cannibal Island Rd to Fernbridge	0	1	1	1	1	0	1	5	Y	Y	On road. Only option currently. Future Rail trail is preferred.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
South	Segment	Street or Alignment											Notes
S2. Ferndale	S2.01	Fernbridge/Eel River Crossing	0	0	1	1	1	0	1	4	N	N	Gets people off 211 - but does not provide a better through route.
	S2.02	Port Kenyon Road to Meridian Rd to end at Centerville Rd.	0	0	1	1	1	0	1	4	Y	N	Does not provide connectivity without Eel River crossing.
	S2.03	Goble Lane from State Route 211 to Dillon Rd	0	0	1	1	1	0	1	4	N	N	Gets people off 211 - but does not provide a better through route.
	S2.04	Dillon Road from the Eel River to Port Kenyon Road	0	1	1	1	1	0	1	5	Y	N	Without the Eel River crossing at Cock Robin Island does not connect. Possible private property concerns.
	S2.05	Singley Bar Road to Eel River	1	1	1	0	1	0	1	5	Y	N	Seasonal bridge is needed. Unknown feasibility.
	S2.06	State Route 211/Main Street from the west side of Fernbridge to Mattole Road	0	1	1	1	1	0	1	5	Y	Y	Will be challenging pedestrian route. Eel river crossing from Cock Robin Island would provide a better coastal experience.
	S2.07	Van Ness to California to Port Kenyon Rd. End at intersection with Dillon Road.	0	0	1	1	1	0	1	4	Y	N	Connection to community routes - but does not provide a better through route to Mattole Rd.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
South	Segment	Street or Alignment											Notes
S3. Mattole Road	S3.01	Mattole Road from Ferndale to "Zanone D" coastal access point south of Cape Mendocino	1	1	1	1	1	0	0	5	Y	Y	No other viable alternative.
	S3.03	On beach from "Zanone D" coastal access point south of Cape Mendocino to "Zanone A" coastal access point at McNutt Gulch	1	1	1	1	1	1	1	7	Y	Y	Provides opportunity for hikers to get off Mattole Rd.
	SB3.01	Mattole Road from "Zanone D" coastal access point south of Cape Mendocino to "Zanone A" coastal access point at McNutt Gulch (where Mattole Road turns inland to Petrolia)	1	1	1	1	1	0	1	6	Y	Y	Getting pedestrian off the road is preferred, this route is a good alternative for bicycles - change to SB.301.
S4. Petrolia	S4.01	On beach from McNutt Gulch to the mouth of the Mattole River	1	1	1	1	1	1	1	7	Y	Y	Issues crossing the mouth of the Mattole seasonally.
	SB4.01	Mattole Road through McNutt Gulch to Petrolia and onto Lighthouse Road to the mouth of the Mattole River	0	1	1	1	1	0	0	4	Y	Y	Bicycle alternative.

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
South	Segment	Street or Alignment											Notes
S5.King Range	S5.01	Prosper Ridge Road to Windy Point Rd to the beach	1	1	1	1	1	1	0	6	Y	N	Provides off beach option
	S5.02	Cooskie Creek Trail	1	1	1	1	1	1	0	6	Y	N	Provides off beach option
	S5.03	Cooskie Creek trail from the Cooskie Spur to the Spanish Ridge Trailhead	1	1	1	1	1	1	0	6	Y	N	Provides off beach option
	S5.04	On beach: Lost Coast Trail - start from the mouth of the Mattole to Black Sands Beach	1	1	1	1	1	0	1	6	Y	E	Existing - do not forward to implementation
	S5.05	Smith Etter Road from Spanish Ridge trailhead to North Slide Peak trail head to the Miller Loop	1	1	1	1	1	1	0	6	Y	N	Provides off beach option
	S5.06	Kings Crest Trail - from North Slide Peak trailhead to Saddle Mtn Road trailhead	1	1	1	1	1	1	0	6	Y	N	Provides off beach option
	S5.07	Kings Peak Road/Saddle Mt Road to Hidden Valley trailhead	1	1	1	1	1	1	1	7	Y	N	Off Road Bicycle Option

			Scenic Experience & Quality or Coastal View	Connectivity	Private Property Impacts	Environmental Impact	Cultural Resource Impact	Safety	Universal Access	Score	Aligned with CCT goals	Recommended for Implementation	
South	Segment	Street or Alignment											Notes
S5.King Range (Continued)	S5.08	Beach Rd at Black Sands Beach to Shelter Cove Rd within the community of Shelter Cove; onto Chemise Mountain Rd to the Hidden Valley Lost Coast Trail trailhead	1	1	1	1	1	1	0	6	Y	Y	Connection from beach to lower portion of the lost coast trail
	S5.09	Lost Coast Trail from Chemise Mtn Road to border with Sinkyone Wilderness	1	1	1	1	1	0	0	5	Y	E	Existing - do not forward to implementation

Appendix L: Implementation Prioritization

- Corridor Condition/Quality.....1
- Planning Consistency2
- Connectivity.....2
- User Demand3
- Management Capacity4
- Resource Constraints/Impact.....4
- Cost/Long-term Maintenance/Funding.....5
- Sea Level Rise Impact5

Appendix L: Implementation Prioritization

Trail alignments were evaluated to determine which routes are most feasible and ready for implementation. All segments included in this analysis are considered in line with priority goals for the California Coastal Trail. Those segments that are already complete and need only designation and/or CCT signing were not included in this analysis. A combination of field investigation, discussion with local stakeholders, and GIS analysis was used to inform the evaluation process. GIS tools were used to evaluate latent demand and sea level rise impact. Weighting factors were assigned to each criterion to further separate trail options, based on the factor's significance to completing the CCT and implementation feasibility in the short and long term.

The criteria used to evaluate implementation readiness are discussed below. Scoring of specific route segments based on the following criteria are detailed in Section 5.2.

Corridor Condition/Quality

Alignments were scored on the condition of the alignment corridor proposed to be part of the CCT. The condition of potential trail alignments will determine the level of planning effort and funding required. Some corridors may require minimal intervention and/or investment before being used as a trail. These alignments may include intact corridors such as road or railroad rights-of-way, abandoned roadways and utility corridors. Some potential alignments require significant investment in terms of cost and engineering due to existing physical condition of the corridor. Examples of corridors that would receive a low rating include those which require significant earth work, substantive environmental impacts, engineered trails, or bridges before the route may be used as a trail facility.

Score	Weight	Possible Score	Score Definition
3	1	3	Existing corridor in need of minimal alteration to function as a trail
2		2	Existing corridor in need of moderate engineering/construction to function as a trail
1		1	Alignment is not clearly defined corridor or is in need of significant engineering/construction to function as trail

Planning Consistency

Alignments were scored on their progress in the planning process and assumed public support. The highest score is assigned to alignments where a public agency has conducted planning and design processes and the alignment is construction ready. Public support is assumed if a trail alignment has been vetted through a public planning process and was identified as a priority. A moderate score is assigned to alignments where a public agency is currently in the design and/or compliance process for the proposed alignment. The lowest score is assigned where a public agency has not identified the alignment in an adopted planning document.

Score	Weight	Possible Score	Score Definition
3	1	3	Alignment is construction-ready or far along in a design process
2		2	Alignment is mentioned in adopted or soon-to-be adopted planning document
1		1	Alignment is not mentioned as a trail in any existing planning document

Connectivity

Alignments were scored based on whether the trail segment represents a significant link in the Coastal Trail or provides a key connection from the main trail to a regional destination, trail or amenity. Alignments that bridge a key gap between existing segments along the coastal route are given the highest score; those that offer a link to local amenities, scenic destinations or provide a point of connection for regional trails receive a moderate score; and those that provide access points but have other alternates available are given the lowest score.

Score	Weight	Possible Score	Score Definition
3	3	9	Alignment bridges a gap between existing portions of the CCT trail corridor or is the only viable option
2		6	Alignment provides key connections to trail amenities or local destinations including regional trails
1		4	Alignment provides an additional access point but other options are available

User Demand

Alignments were scored based on whether the trail segment has known user demand as demonstrated in latent demand modeling by planning reach, public input for this project, and past planning processes. Alignments that are in population centers or near significant scenic amenities and have documented public support receive the highest score. Those alignments near a population center or amenity but without documented support receive a moderate score. Those alignments that are not near a population center or scenic amenity but have known public support receive a moderate score. Alignments that do not have known public support and are not near a population center or amenity receive the lowest score.

Score	Weight	Possible Score	Score Definition
3	1	3	Alignment is near population center or is primary access to amenity and has known public support
2		2	Alignment is near population center or amenity - but public support is not documented or Alignment is not near population center or amenity - but public support is documented
1		1	Alignment is not near population center or amenity and public support is not documented

Management Capacity

Alignments were scored based on their proximity to parcels owned by public entities and whether the organization has capacity to function as a lead agency for construction, operation and maintenance. Alignments receive a high score if they are completely within public land and the public agency is a willing partner in trail development and maintenance. Alignments that are partially on public land or ROW but have an indentified lead agency will receive a moderate score, and alignments that are not held by public entities or have no willing manager receive the lowest score.

Score	Weight	Possible Score	Score Definition
3	1	3	All parcels intersected by the alignment are held by public entities and there is an identified and willing lead agency
2		2	Alignment is partially on public land and/or there is an identified lead agency or clear process for an interagency agreement
1		1	No parcels are held by a public agency or there is no known willing lead agency

Resource Constraints/Impact

Alignments were scored based on perceived conditions and their potential impact to environmentally-sensitive areas. Alignments in or near known or suspected wetlands, threatened and endangered species habitat or other sensitive areas are considered to have a potentially negative impact and receives low score. In addition, alignments that located in areas with potential slope instability receive a low score. Alignments not impacting sensitive areas receive the highest score. Alignments that occur within or near sensitive areas but are proposed to be designed sensitively (i.e., the use of boardwalk through a wetland area) or mitigate for impact were given a moderate rating. Alignments that aid in restoration objectives but are located in a sensitive area will also receive a moderate rating. Alignments that would have permanent negative impacts to sensitive areas receive the lowest score. This criterion is given a weighting of 2, as it addresses a primary project goal.

Score	Weight	Possible Score	Score Definition
3	1	3	Alignment does not impact a sensitive area.
2		2	Alignment impacts sensitive areas, but mitigates the impact by aiding in restoration of resources or improving slope stability
1		1	Alignment indirectly impacts a sensitive area or alignment impacts a sensitive area and does not mitigate the impact

Cost/Long-term Maintenance/Funding

Alignments were scored based on whether funding sources have been identified for both short and long term needs for construction, as well as operations and maintenance. Those alignments that are existing and have maintenance plans in place, as well as those with secured funding, receive the highest score. Alignments that have funding in place for planning and construction but do not have an ongoing maintenance commitment will receive a moderate score; those that have no known viable funding source are given the lowest score.

Score	Weight	Possible Score	Score Definition
3	1	3	Sources of funding for construction, operations and maintenance have been identified for the alignment
2		2	Sources of funding have been identified for construction but not long term operations and maintenance; and/or the project is a priority for the local jurisdiction; or little funding is needed (i.e. existing trail)
1		1	Sources of funding are unlikely, unknown, or are low public priority

Sea Level Rise Impact

Alignments were scored based on whether they would be impacted by projected fifty-year sea level rise. Those alignments that will not be impacted receive the highest score. Those alignments that will be impacted but require little capital investment to function as the CCT receive a moderate score. For example, many beach alignments may be covered in fifty years but these routes require little or no site modification. Alignments that will be inundated and require moderate to significant capital investment receive the lowest score.

Score	Weight	Possible Score	Score Definition
3	1	3	Alignment will not be inundated within fifty-year sea level rise projections
2		2	Alignments may be inundated but do not require major investment or site modification
1		1	Alignments will be inundated and will require major investment or site modification

Appendix M: Funding Considerations

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Appendix M: Funding Considerations

Construction Costs

Trail construction costs can vary widely depending on who is constructing the trail, trail location and design, cost sharing and volunteer support, and associated compliance and permitting expenses. A basic list of the types of variables that may affect the total cost of constructing a trail includes use of onsite construction materials versus the need to purchase and transport materials, volatile materials and fuel costs, types of equipment, experience of contracted equipment operators and labor crew, trail engineering standards, project management effectiveness, prevailing wage, cost share opportunities, availability of volunteer support, use of public employees whose time is already budgeted, weather conditions during construction, and soil and environmental conditions of the trail setting.

Another key variable that may affect a project's budget positively or negatively is the type and extent of regulatory compliance required to begin construction. Some public agencies, including the National Park Service, will plan and undergo environmental review for an entire trail system in a programmatic approach to trail construction. Without a programmatic approach, multijurisdictional trails will usually require environmental and other compliance review and permitting prior to construction on a case-by-case basis, which may raise the total cost of implementing a project. In conversation with many public agencies, the cost of regulatory compliance was perceived to be a significant and growing component of total costs and in some cases, more than the cost of trail construction.

Trail construction costs are often also driven by the amount of funding available for the project. Expenses associated with trail construction will tend to meet the amount of funding dedicated to the project. Some projects require full completion of construction goals using a specified dollar amount. Other projects dedicate a certain amount of funding with the expectation that trail will be built until the money runs out. The quality of construction, types of tools and labor, and materials used during construction will often vary or be altered depending on the amount of funding dedicated to a specific trail project and the contractual construction obligations of the project. Funding may also be dedicated to more than creating a new trail. Often projects will be multifaceted, combining any number of other project goals including watershed restoration, erosion control, existing trail reconstruction, and construction and installation of trail related facilities.

What follows is an exploration of the range of total costs associated with a variety of local trail construction projects. Due to the span of years in which this information was collected, the diverse number of variables affecting construction costs mentioned above, and because of the tendency for trail construction to vary widely, these costs represent a wide spectrum for any given trail type. This section is intended to act as a guide to help readers understand the general range of linear foot trail construction costs and provide exposure to some actual examples of trail construction projects, their total costs and variables.

General Trail Construction Cost Estimates by CCT Trail Type

Cost is a key factor when making decisions about prioritization and funding strategy. This section provides summary cost estimates for the short, medium and long-term projects as well as for each segment defined in this *Implementation Strategy*. These cost estimates are based on 2010 trail unit costs per linear foot for each of the relevant trail types and materials. Given that this is a master plan level document, and in order to provide some flexibility for future adjustments in assumptions about preferred trail designs, the cost estimates provide a range from minimum to complete implementation cost. Each of the linear foot cost figures include fees for baseline engineering, design, and construction. Mobilization and construction management are included as well as a forty percent contingency. These estimates do not include costs for property acquisition, environmental permitting and mitigation, roadway intersection improvements, bridges or other major engineered structures, trailheads, or site furnishings.

These general cost estimates were based on a model that compiled ground-up costs for construction materials and labor by trail type. These cost estimates are very general for the west coast and are not based on the special demands of any particular setting. Trail cost estimates are broken down into “full” and “min” estimates. These differences refer to the “full” build out of a trail type versus build out to a “minimum standard” for a specific trail type. Build out is related to three factors: paved trail width, natural surface width, and clearance width.

Table M-1: Summary of Cost Estimates by Trail Type

Trail Type	Cost/Mile (\$)	Map Code
Bike Path with Adjacent Multipurpose Trail (full)	\$1,025,000	HEB
Bike Path with Soft Surface Shoulders (min)	\$710,000	HEB
Rail with Trail	\$1,315,000	HB
Combination of Rail to Trail and Rail with Trail*	\$980,000	HB
Shared Roadway (full)	\$12,000	S
Shared Roadway (min)	\$9,000	S
Multipurpose Trail (full)	\$270,000	HE
Multipurpose Trail (min)	\$135,000	HE
Hiking Trail (full)	\$135,000	H
Hiking Trail (min)	\$55,000	H
Beach Route	\$1,000	HE

KEY: H = Hiking, E = Equestrian, B = Biking, S = Shared Roadway

* These rail-trail cost estimates are baseline costs from the Arcata Rail-with-Trail Feasibility Study and Operations Plan, for which the rail prism provided a structurally sound and intact corridor without the need for wetland mitigation. Other rail-trail alignments around Humboldt Bay may cost significantly more to upgrade structures, reinforce the rail prism, or provide wetland mitigation.

High & Low Estimates of Coastal Humboldt County Trail Construction

Depending on the type and range of variables listed above, it is generally estimated that a mile of trail can range between \$75,000 and \$920,000 per mile – in some cases including related costs such as erosion control and not including regulatory compliance – based on trails constructed in approximately the last decade in coastal Humboldt County. Some trails in the planning process could greatly exceed these costs. The section below, ‘Cost Estimates from Planning Documents’, includes projected costs outside of this range, but they reflect estimated numbers projected from various plans, not actual construction projects.

Low Estimate Description

The low end of the trail construction cost estimate was generated from a 2010 Redwood National Park project implemented by the National Parks Service. Regulatory compliance had been completed using a trail system-wide programmatic approach. The federal agency was not required to undergo any state compliance processes including review by the Coastal Commission. Trail construction consisted of three miles of single track built on an existing old roadbed. Trail width was approximately two and a half to three feet. The project manager described the trail construction as “easy.” Construction labor included use of the CCCs funded in part by a cost-share element, and the use of agency employees whose costs were covered under ongoing funding by the agency. The project was funded through an internal agency grant process.

High Estimate Description

The high end of the trail construction cost spectrum was generated from a 2007 project implemented by NRS. Regulatory compliance and planning costs were isolated and removed from this construction cost estimate, but if left in, would add several hundred thousand dollars more. The project was funded by two grants awarded by separate funding sources. The overall project consisted of four components including a connecting section of sidewalks and bike lanes along Murray Road, a paved multipurpose path connecting Murray Road to Letz Ave., a rocky pedestrian interpretive trail, and a connection incorporating a pump house access road and Letz Ave. This cost estimate is limited to the construction of the paved multipurpose path. Costs for other components of the project were isolated and removed. The design for the multipurpose path consisted of approximately 3,150 feet of multipurpose trail running parallel to southbound US 101 on a combination of county, MCSD, and private landowner provided easements, one of which is in the Caltrans ROW. The trail was engineered to multipurpose trail specifications (approximately ten feet wide, or greater), surfaced hardened (paved), and includes extensive retainer walls, fencing, re-vegetation, signage, and drainage-related structures. Prevailing wage was paid during this project. Project labor included the CCCs amongst others.

Cost Estimate for the Completion of the CCT across Humboldt County

The completion of the CCT across Humboldt County will be a long-term endeavor implemented and funded in segments by both individual jurisdictions and collaborations. This section assesses a rough construction cost estimate for the construction of the incomplete segments of the CCT across the county to guide planning and for predicting future funding needs. This exercise is meant to serve as a guide for predicting construction costs and does not include costs associated with planning, engineering, and compliance for individual segments.

Costs for construction of each segment were estimated by categorizing trail type and length (information detailed in Chapter 4) and applying the general trail construction costs by trail type shown in Table M-1: Summary of Cost Estimates by Trail Type. Each incomplete segment was categorized as being on the high or low end of the construction cost spectrum for a respective trail type. Construction costs for all incomplete segments were added together to derive an approximate countywide cost. Per mile cost estimates for recommended CCT rail-trail alignments were taken from the Arcata Rail with Trail Feasibility Study and Operations Plan 2010 Draft. Bridge improvements for recommended CCT segments were not included in the county-wide cost estimate because of the wide range of costs associated with bridge replacement and retrofit projects to meet the needs of non-motorized users. The estimated cost to complete construction of the Humboldt CCT is \$37.5 million.

Table M-2: Humboldt CCT Trail Costs by Segment

Segment ID	Segment Description	Type	Length (mile)	Per Mile Cost	Total
North					
N2.01	Multipurpose trail on north Redwood Creek levee to the US 101 bridge	Multipurpose	0.7	\$270,000	\$189,000
Gap	US 101 shared roadway	Shared roadway	0.7	\$9,000	\$6,300
N2.03	South levee from US 101 bridge to Redwood National Park Visitor Center	Multipurpose	2.5	\$270,000	\$675,000
N2.04	On the beach from the Redwood National Park Visitor Center to the south end of Freshwater Lagoon	Beach	1.5	\$1,000	\$1,500
N3.02	Hiking trail along midslope contour of Gyon Bluffs above US 101 from south end of Freshwater Lagoon to Stone Lagoon access road	Hiking	0.5	\$135,000	\$67,500
N3.03	From the Stone Lagoon access road, along beach west of Stone Lagoon. Continue around west side of lagoon to existing trail from the environmental camp to Dry Lagoon beach	Beach	1.7	\$1,000	\$1,700
N3.03	From the Stone Lagoon access road, along beach west of Stone Lagoon. Continue around west side of lagoon to existing trail from the environmental camp to Dry Lagoon beach	Hiking	1.7	\$55,000	\$93,500
N3.04	On beach from Dry Lagoon access to south end of Big Lagoon	Beach	4.2	\$1,000	\$4,200

Segment ID	Segment Description	Type	Length (mile)	Per Mile Cost	Total
North					
N3.05	On beach from south end of Big Lagoon to Agate Beach to trails at the south end of Agate Beach and Rim Trail in Patrick's Point State Park	Beach	2.1	\$1,000	\$2,100
N4.01	Patrick's Point Drive near Park entrance to Stagecoach Rd. Continue on west Stagecoach to Trinidad State Beach Elks Head/College Cove parking lot at Trinidad State Beach	Shared roadway	5.4	\$9,000	\$48,600
N4.02	Hiking trail through Trinidad State Beach that connects to beach and Trinidad Harbor	Beach	0.4	\$1,000	\$400
N4.02	Hiking trail through Trinidad State Beach that connects to beach and Trinidad Harbor	Hiking	0.8	\$55,000	\$44,000
N4.07	Scenic Drive from Groth Lane south to US 101	Shared roadway	3.0	\$9,000	\$27,000

Segment ID	Segment Description	Type	Length (mile)	Per Mile Cost	Total
Central					
C1.02	End of Scenic Drive along bluff and down to Little River	Multipurpose	0.5	\$270,000	\$135,000
C1.04	From US 101 weigh station access along State Parks' proposed trail near the south end of the Little River Bridge through Little River State Beach dunes to near access point at Crannell Drive interchange.	Multipurpose	0.5	\$135,000	\$67,500
C1.05	Dune trail in Little River State Beach, from access point near Crannell Drive interchange to State Parks' dune trail.	Multipurpose	0.5	\$135,000	\$67,500
C1.06	On Clam Beach Drive beginning at Little River State Beach parking area to the connection with Hammond Trail.	Shared roadway	0.9	\$9,000	\$8,100
C1.08	Hammond Bridge	Bridge	1.0	\$7,000,000	\$7,000,000
C2.02	Mad River Road south from the Hammond Bridge to the intersection with Lanphere Road	Shared roadway	2.5	\$9,000	\$22,500
C2.06	Lanphere Road to Seidel Rd, ending at Foster Ave.	Shared roadway	1.5	\$9,000	\$13,500
C2.08	Foster Ave to Jackson Ranch Road	Shared roadway	2.0	\$12,000	\$24,000
C2.09	Foster Avenue from intersection with Seidel to Q street to 17th Street	Shared roadway	1.5	\$12,000	\$18,000
C3.02	State Route 255 - Jackson Ranch Road over Mad River Slough Bridge to Young Lane	Shared roadway	0.9	\$12,000	\$10,800

Segment ID	Segment Description	Type	Length (mile)	Per Mile Cost	Total
Central (Continued)					
C3.04	Multipurpose trail through Manila along the west side of State Route 255 right-of-way from Young Lane to South Peninsula Drive.	Multipurpose	2.2	\$1,025,000	\$2,255,000
C3.05	State Route 255 from south extent of Peninsula Drive to the Samoa bridge approach.	Shared roadway	0.9	\$12,000	\$10,800
C4.01	On rail corridor from 17th Street and Alliance Road to South G Street near the Arcata Water Treatment Plant	Rail with trail	1.5	\$980,000	\$1,470,000
C4.02	Rail-trail from South G in Arcata to Bracut	Rail to trail	2.4	\$980,000	\$2,352,000
C5.01	Rail-trail from Bracut to Y Street to T Street	Rail to trail	3.9	\$980,000	\$3,822,000
C5.03	T street to Front Street to Waterfront trail	Shared roadway	0.2	\$9,000	\$1,800
C5.06	Proposed boardwalk from J Street to G Street	Boardwalk	0.3	\$39,000,000	\$11,700,000
C5.09	Multipurpose trail in rail ROW - Waterfront Drive from C Street to Del Norte Street	Rail with trail	1.4	\$980,000	\$1,372,000
C6.02	North end of Bayshore Mall to Truesdale	Rail with trail	0.5	\$980,000	\$490,000
C6.03	Truesdale to Hilfiker Lane	Multipurpose	0.3	\$135,000	\$40,500
C6.05	Hilfiker Lane to Elk River Wildlife Area and Park and Ride at Pound Rd	Multipurpose	1.0	\$780,500	\$780,500
C7.01	Multipurpose trail in rail ROW from Pound Rd to Tompkins Hill Rd	Rail to trail	4.3	\$980,000	\$4,214,000
C7.03	Tompkins Hill Rd from northern 101 interchange to Hookton Rd/US 101 southern interchange	Shared roadway	3.0	\$12,000	\$36,000

Segment ID	Segment Description	Type	Length (mile)	Per Mile Cost	Total
South					
S1.01	Eel River Drive from US 101 to Cannibal Island Rd	Shared roadway	2.2	\$12,000	\$26,400
S1.07	Eel River Drive from Cannibal Island Rd to Fernbridge	Shared roadway	2.7	\$9,000	\$24,300
S2.06	State Route 211/Main Street from the west side of Fernbridge to Mattole Road	Shared roadway	4.9	\$9,000	\$44,100
S3.01	Mattole Road from Ferndale to Zanone D coastal access point south of Cape Mendocino	Shared roadway	21.1	\$12,000	\$253,200
S3.03	On beach from Zanone "D" coastal access point south of Cape Mendocino to Zanone "A" coastal access point at McNutt Gulch	Beach	2.9	\$1,000	\$2,900
S4.01	On beach from McNutt Gulch to the mouth of the Mattole River	Beach	4.8	\$1,000	\$4,800
S5.08	Beach Rd at Black Sands Beach to Shelter Cove Rd within the community of Shelter Cove; onto Chemise Mountain Rd to the Hidden Valley Lost Coast Trail trailhead	Shared roadway	3.4	\$9,000	\$30,600
				Total in 2010 Dollars	\$37,500,000

Operations and Maintenance Costs

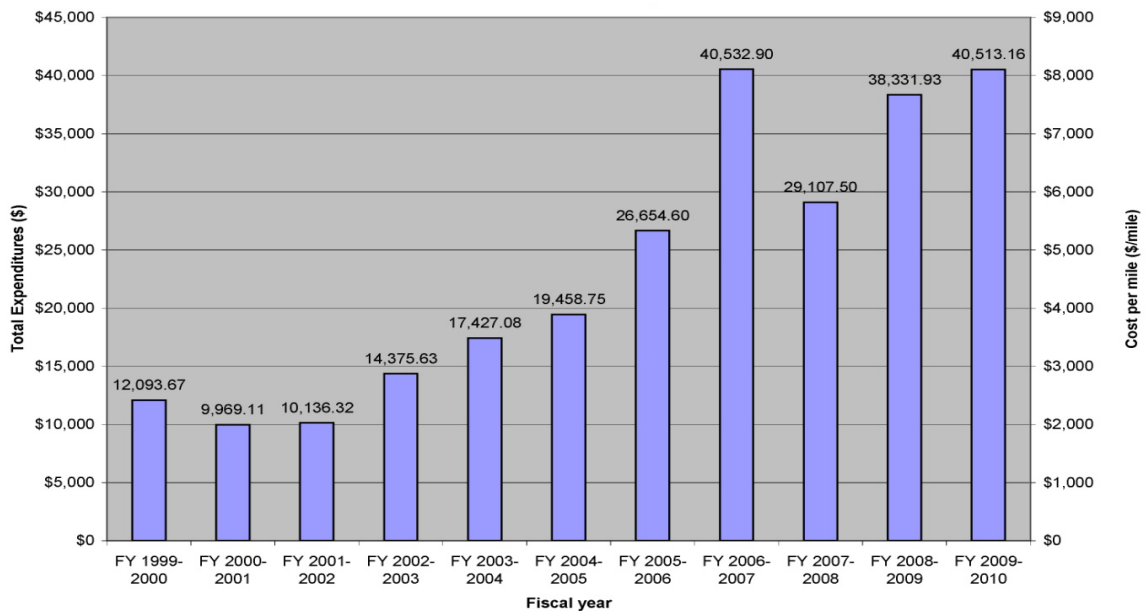
The long-term operations and maintenance costs can often be the most significant barrier to trail implementation for local jurisdictions. Regular maintenance is necessary to preserve a safe and effective trail system and may help to delay significant long-term repair costs. However, trail operations and maintenance efforts are rarely funded by grants or special programs, and jurisdictions must often rely on internal funding for these activities. While the capital outlay for trail construction can be an immense commitment for a jurisdiction, implementation grants are often available to assist funding trail construction. Planning for long-term operations and maintenance funding is essential for the success of a trail system.

Locally, operations and maintenance costs for the County of Humboldt for the Hammond Coastal Trail have averaged around \$5,000 per mile per year from 2000-2010 (Table M-2: Humboldt CCT Trail Costs by Segment). Significant capital improvements, including fence replacement, hazard tree treatment, and sink hole repair, were made to the Hammond Coastal Trail in the last four years that required more significant maintenance costs. These investments in maintenance have allowed the Hammond Coastal Trail to remain a prime destination for both local residents and visitors. The Humboldt County Public Works department asserts these costs have been manageable; however, significant trail surface improvements have not yet been made and would significantly increase per mile maintenance costs. More details regarding operations and maintenance costs for the Hammond Coastal Trail can be found in an unpublished technical memorandum from County of Humboldt Public Works dated September 23, 2010.

Operations and maintenance cost for the Hammond Coastal Trail are comparable to that of the Bear Creek Greenway in Jackson County, Oregon, which has averaged around \$6,600 per mile per year and is apportioned to each jurisdiction through which the trail passes. Both the Hammond Coastal Trail and the Bear Creek Greenway traverse a diversity of corridors including riparian areas and geographic challenges, providing for more significant operations and maintenance needs. A survey of operations and maintenance costs for jurisdictions across the U.S. indicates that an average cost for operations and maintenance may be around \$2,000 per mile per year (Rails-to-Trails Conservancy, 2005). In a similar estimate, the Encinitas Trails Master Plan (April 2002) provides an estimated annual operation and maintenance cost of \$2,600 per mile for a trail system of twelve miles. The expenditures for operations and maintenance of the Hammond Coastal Trail may be higher than these surveyed estimates because of the proximity of the Hammond Trail to the coast and sensitive resources. For example, the Vista Point-to-Clam Beach trail segment is adjacent to habitat for western snowy plover, a threatened species, and this segment requires more extensive effort for managing gates and repairing fences. Maintenance activities within the coastal zone may be subject to greater compliance and permitting under the state Coastal Act or Local Coastal Program. Per-mile maintenance and operation costs are likely to decrease as the size of a trail system increases due to economies of scale.

Currently, the baseline budget for management of the Hammond Coastal Trail is funded through Humboldt County's annual allocation of state Transportation Development Act (TDA) funds. TDA funds are available for trail maintenance after countywide transit needs have been met.

Figure M-1: Expenditures for Hammond Trail Maintenance and Operations



9/23/2010

Source: Humboldt County Public Works- Parks Division

General Estimates for Bikeways

Class I, II, and III bikeways are also often discussed as trails or act to connect trails by providing improved or recommended low-traffic travelways. The City of Arcata, in their Draft 2010 *Arcata Pedestrian & Bicycle Master Plan*, provides cost estimates for each type of facility per mile. These cost estimates are very general and do not include any planning, permitting, or special environmental or other circumstances:

- Class I: \$550,000/mile
- Class II: \$30,000/mile
- Class III: \$5,000/mile.

Trail Surfacing Estimates

A variety of trail surfacing materials are recommended in plans for Humboldt County trails depending on the trail users being planned for. Trail surfacing types range from a hard resin-based material, to concrete, to a variety of rocked or soft surfaces. The following is a general cost estimate for trail surfaces. Materials cost estimates will fluctuate depending on the year and the size of the project.

NaturalPAVE

NaturalPAVE is a high strength resin alternative to asphalt that involves an aggregate base that supports a two inch thick hardened resin pad or surface. Strength tests have demonstrated that this resin surfacing is more durable than asphalt and is available in several shades of natural brown that allows blending with the surrounding native soil. The manufacturer provided a cost estimate, including installation, of \$4 per square foot. A ten foot wide surfaced trail would cost \$40 per linear foot. This estimate does not include recommended unpaved shoulders or any of the base material.

Asphalt Concrete

Concrete is a commonly used trail surfacing material for Class I bike paths and multipurpose trails. The Hammond Trail section between Murray Road and Letz Avenue was surfaced with concrete. Based on the 2007 Hammond Trail construction project, a two inch thick concrete pad cost \$1.80 per square foot. A ten foot-wide trail would cost \$18 per linear foot. This estimate does not include extra costs associated with the required twelve to fourteen foot wide aggregate base.

Aggregate Base

Aggregate base is the rock material that underlies the hardened surface of trails. Based on 2007 Hammond Trail construction figures, an aggregate base that averages thirteen and a half feet in width and is approximately six inches in depth will cost \$1.96 per square foot or \$19.60 per linear foot to construct on the ground.

Rocked surface

Rocked surface trails often include crushed shale or some other crushed rock type that creates a softer yet durable surface preferred by runners and equestrians. The rocked surface is often added as a six inch deep cap to an aggregate base. Crushed shale is considered the desired material because it can be blended to match the surrounding environment (doesn't come out looking grey) and provides a soft, smooth walking surface with good traction. Crushed shale, estimated here as trucked from Weaverville (the nearest current source) including materials, trucking, and labor to spread the material, is estimated at \$1.76 per square foot.

General Costs for Trail Amenities

Costs for trail-related amenities (below) are estimates that include any required construction or assembly and on-site installation. Cost values are provided as a rough estimate of what to expect for a variety of facility types based on estimates from one or more sources. These cost estimates were derived from a combination of actual local construction or planning project estimates based on historic cost figures.

Trail Facilities

Single Vault Concrete CXT Toilet (standard, one stall): \$28,000-\$36,000

Vault Toilet (large, two stalls): \$81,000

Flushing toilet: TBD

Bike Racks: \$425-\$920

Bike Lockers: \$1,200

Bike Air Stations: \$1,250

Gate: \$1,000-\$6,000

Call Box: \$7,500

Trash/Recycling Receptacles; \$400-\$1400

Bridge (wood to fiberglass, twelve foot width by forty foot length): \$40,000-\$55,000

Lighting (bollards or twelve foot steel poles with HPS lamps): \$650-\$2000 ea

Picnic Table: \$800-\$1200

Bench: \$600-\$1000

Water Fountain (floor mounted including supply, waste & freeze proof valve): \$3200 ea

Parking

Paved parking space: \$4,000

Gravel parking space: \$1,600

Street Facilities

Crosswalk (continental): \$400

Crosswalk (ladder): \$700

Pedestrian/Bicycle Highway Overcrossing: \$2,400,000

Pedestrian Refuge Island: \$1,200

Overhead Pedestrian Crossing Sign: \$36,000

Signalized Crossing: \$75,000-\$150,000

Signage

Kiosk (open-book, roofed, wooden structure; two 36" x 24" panels; labor and materials): \$1500

Wayside Interpretive Sign (36" x 24" with double-legged pedestal, per unit, assuming two or more, including shipping/handling/taxes): \$1,000 ea

Wayside Interpretive Sign: (30" x 20," single-legged pedestal, per unit, assuming two or more, including shipping/handling/taxes): \$800 ea

Regulatory/Directional Panels (i.e. trail identification and location signs, road signs) (18" x 12," 18" x 18," 24" x 24," metal with vinyl lettering, cost is per unit, assuming eight or more): \$24-\$55 ea

Graphic Design Labor & Artwork: \$2,000 per sign minimum (assuming basic template in place and content topics identified) for interpretive panels; \$100-\$500 for regulatory and directional signs

Cost Estimates from Planning Documents

Planning documents written for local cities, state and federal agencies, and HCAOG include estimates of construction costs for a variety of trail segments and trail amenities and facilities. The most recent plan including these figures for the north coast, the *HCAOG Regional Trails Master Plan*, discusses cost estimates for a variety of construction options for specific trail segments. Trail segments in the RTMP include the Humboldt Bay Trail Arcata to Eureka segments, a future portion of the CCT. Projected costs for implementing this six and a quarter mile long Class I trail segment range from a rail banked trail at approximately \$14,800,000 to a 'Freeway with Trail' at approximately \$42,390,000. A rail-with-trail option is estimated to cost approximately \$31,200,000.

Funding Opportunities

Funding for trails comes from all levels of government and non-government organizations. This section presents these funding sources, describing the trail types that are eligible for funding and the funding requirements. Table M-3: Funding Sources outlines these sources and the information necessary to determine if a trail project is eligible.

Federal

The primary federal source of surface transportation funding—including bicycle and pedestrian facilities—is the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU). As of December 2009, Congress was in the process of renewing this transportation bill, which has been extended through December 31, 2010.

Federal funding is administered through the state (Caltrans and the State Resources Agency) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation, with an emphasis on reducing auto trips and providing inter-modal connections. Many federal programs require a local funding match ranging from ten to twenty percent. Federal funding is intended for capital improvements and safety and education programs, and projects must relate to the surface transportation system.

Recreational Trails Program

The Recreational Trails Program (RTP) provides funds annually for recreational trails and trails-related projects. The RTP is administered at the federal level by the Federal Highway Administration (FHWA). It is administered at the state level by the California Department of Parks and Recreation. The maximum amount of RTP funds allowed for each project is eighty-eight percent of the total project cost. The applicant is responsible for obtaining a match amount that is at least twelve percent of the total project cost. Examples of funded trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses. Funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition of easements or property for trails
- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a state's funds)

Rivers, Trails & Conservation Assistance Program

The Rivers, Trails and Conservation Assistance (RTCA) program is a National Parks Service program that provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds, and open space. The RTCA program provides planning assistance only. Projects are prioritized for assistance based upon criteria that include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments. Federal agencies may be the lead partner only in collaboration with a non-federal partner.

Land & Water Conservation Fund

The Land and Water Conservation Fund (LWC) provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. LWC is administered by the National Parks Service and the California Department of Parks and Recreation and has been reauthorized until 2015. Cities, counties and districts authorized to acquire, develop, operate, and maintain park and recreation facilities are eligible to apply. Applicants must fund the entire project and will be reimbursed for fifty percent of costs. Property acquired or developed under the program must be retained in perpetuity for public recreational use. The grant process for local agencies is competitive, and forty percent of grants are reserved for Northern California.

Highway Safety Improvement Program

Administered by Caltrans, Highway Safety Improvement Program funds are intended to help achieve a significant reduction in traffic fatalities and serious injuries on all public roads. HSIP requires Caltrans to develop and implement a Strategic Highway Safety Plan (SHSP) that identifies improvements. Caltrans sets aside funds for construction and operational improvements on high-risk rural roads and may use the remainder of funds for bicycle and pedestrian pathways or trails and education and enforcement. Previous application deadlines have been in October.

Federal Lands Highway Funds

Federal Lands Highway (FLH) funds may be used to build bicycle and pedestrian facilities in conjunction with transit, roads and parkways in federal or Indian lands. The projects must be transportation-related and tied to a plan adopted by the state and Metropolitan Planning Organization. FLH funds may be used for planning and construction.

Transportation, Community & System Preservation Program

The Transportation, Community and System Preservation Program (TCSP) provides federal funding for transit oriented development, traffic calming, and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services, and trade centers. It is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. States, metropolitan planning organizations, local governments, and tribal governments are eligible for TCSP funding, and a twenty percent funding match is required.

Internal Federal Agency Funds

Federal land management agencies such as the NPS and BLM have their own internal dedicated and competitive funding programs.

State

State funding for trail projects comes from a variety of sources including federal allocations to state governments and voter-approved bonds. State of California agencies typically charged with administering these funds include Caltrans and the Department of Parks and Recreation.

Statewide Park & Community Revitalization Program

This program provides a competitive grant for new parks and recreational facilities for the most underserved communities in California. Neighborhood and regional trails are eligible for the grant program. Grants from \$100,000 to \$5,000,000 are awarded and no local matching funds are required.

Bicycle Transportation Account

Caltrans administers the Bicycle Transportation Account (BTA), state funding for local planning and construction projects that improve the safety and convenience of bicycling for transportation (e.g., bikeways accessing schools, employment centers and transit). Applicants must have an approved Bicycle Transportation Plan and their project must meet Caltrans Highway Design Manual Chapter 1000 and Manual of Uniform Traffic Control Devices standards. The maximum individual grant amount is \$1.2 million.

California State Coastal Conservancy

The California State Coastal Conservancy (SCC) funds trails to and along the coast and as part of natural restoration projects within the coastal zone. Grant applicants must be public agencies or non-profit organizations with purposes consistent with California Code Division 21 Water Conservation. Projects developed through a coordinated effort between the SCC and applicant are the most competitive.

Habitat Conservation Funds

Authorized by the California Wildlife Protection Act in 1990, Habitat Conservation Funds can be used for the construction of trails for the purpose of protecting wildlife corridors. The program allocates \$2 million per year to the California Department of Parks and Recreation to administer to public agencies. There is no minimum or maximum grant amounts and awardees must match fifty percent of the project cost. This program sunsets in FY 2019/20.

Environmental Enhancement & Mitigation Program

The Environmental Enhancement & Mitigation Program (EEMP) provides grant opportunities for projects that indirectly mitigate environmental impacts of new transportation facilities. Projects should fall into one of the following three categories: highway landscaping and urban forestry; resource lands projects or roadside recreation facilities. The local Caltrans District must support the project, and the program is administered by the State Resources Agency.

Wildlife Conservation Board Public Access Program

The Wildlife Conservation Board Public Access Program funds land acquisitions that preserve wildlife habitat or provide recreational access for hunting, fishing or other wildlife-oriented activities. Up to \$250,000 is available per project with applications accepted quarterly. Eligible projects include interpretive trails, river access and trailhead parking areas. The state must have a proprietary interest in the project. Local agencies are generally responsible for the planning and engineering phases of each project.

State River Parkways Program

This goal of this program is to provide recreational, wildlife, flood management, water quality, and urban waterfront revitalization benefits to communities along river corridors. Trail-related projects are a strong component of the program, by achieving recreation, interpretation, and potentially conversion of abandoned industrial lands goals. Public access is a fundamental requirement of the program.

California Conservation Corps

California Conservation Corps (CCC) is a public service program employing youth in natural resource which occasionally provides assistance on construction projects. The CCC may be written into grant applications as a project partner. In order to utilize CCC labor, project sites must be public land or be publicly accessible. CCC labor cannot be used to perform regular maintenance; however, it can perform annual maintenance, such as the opening of trails in the spring.

Community-Based Transportation Planning Demonstration Grant Program

This fund, administered by Caltrans, provides funding for innovative planning projects that exemplify livable community concepts including bicycle and pedestrian improvement projects. Eligible applicants include local governments, metropolitan planning organizations and regional transportation planning agencies. A ten percent local match is required and projects must demonstrate a transportation component or objective. There is \$3 million available annually statewide.

Internal State Agency Funds

State land management agencies such as Caltrans, State Parks and Department of Fish & Game have their own internal dedicated and competitive funding programs for public access, transportation and trails.

Local

Local sources for trail implementation come from local and state sales tax revenues and can come from development fees.

Measure G: Arcata Sales Tax Increase

In 2008, the City of Arcata voters approved Measure G, a 0.75 percent increase in sales tax. Funds from this sales tax increment are available for projects that increase bicycle and pedestrian safety and for safer paths to schools.

Measure I: Trinidad Sales Tax Increase

In 2008, the City of Trinidad voters approved Measure I, a 0.75 percent increase in sales tax for the city's general fund. Funds from this sales tax increment are available for trail and park maintenance and protection.

Transportation Development Act

Transportation Development Act Article 3 funds are state block grants awarded monthly to local jurisdictions for transit, bicycle, and pedestrian projects in California. Funds for pedestrian projects originate from Local Transportation Funds (LTF), which is derived from a quarter percent of the general state sales tax. LTF are returned to each county based on sales tax revenues. Article 3 of the Transportation Development Act sets aside two percent of LTF for bicycle and pedestrian projects. Eligible trail projects include construction and engineering for capital projects, maintenance of bikeways, and development of comprehensive bicycle or pedestrian facilities plans. These funds may be used to meet local match requirements for federal funding sources.

Development Impact Fees

Fees placed on new development can be used as local matching funds to attract funding from other grant sources. Development impact fees or other project-specific exactions are more readily achieved when bikeway and trail projects are identified in countywide local planning documents and are described as serving a specific geographic area where future development is planned or may occur.

Non-Traditional

Non-traditional sources can be public, private or non-profit entities that are not commonly identified as trail funding sources because their main intent is not to directly construct trails, e.g. Community Development Block Grants, or may be relatively small fund amounts, e.g. American Greenways Program or Bikes Belong.

Community Development Block Grants

The Community Development Block Grant (CDBG) is a federal program that provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Grantees may use CDBG funds for

building and improving public facilities, such as streets, sidewalks, and community recreational facilities, and for planning and administrative expenses.

American Greenways Program

Administered by The Conservation Fund, the American Greenways Program provides funding for the planning and design of greenways. Greenways Program awards may be used to fund unpaved trail development. Eligible applicants include local, regional or statewide non-profit organizations and public agencies. The maximum award is \$2,500, but awards typically range from \$500 to \$1,500.

Bikes Belong Grant

Bikes Belong is an organization sponsored by bicycle manufacturers with the intent to increase bicycle riding in the United States. Bikes Belong provides grant opportunities up to \$10,000 with no required match to organizations and agencies seeking to support bicycle facility and advocacy efforts. Eligible projects include paved bicycle paths, rails-to-trails and mountain bike trails.

Funding Matrix

Table M-3 compiles the funding sources and their relevant information into a matrix format for easy review and comparison of source requirements, i.e. application deadlines, maximum awards, matching requirements, and trail types eligible for the source. Not all funding sources have these requirements which is indicated by NA, or “Not Applicable,” where this is the case.

Table M-3: Funding Sources

Funding Source	Application Deadline	Adminis-tering Agency	Match Req'd	Max Grant	Eligible Applicants	Transportation	Recreation	Safety/Education	Maintenance and Restoration	Technical Assistance	Paved	Unpaved	Comments
Federal													
Federal Lands Highway Funds	Varies	FHWA	None	NA	Federal and Indian land managers	X					X		Project must be identified in a plan adopted by a state or Metropolitan Planning Organization.
Highway Safety Improvement Program	October	Caltrans	None	\$900,000	Agency that assumes responsibility for a publicly owned roadway	X	X	X			X	X	Highway safety improvement projects benefiting publicly-owned bicycle and pedestrian trails and pathways.
Land and Water Conservation Fund	May	National Parks Service	50%	\$3.5 M	Cities, counties, districts authorized to acquire, develop, operate, and maintain park and recreation facilities.	X	X				X	X	No more than 25% of the grant may be spent on non-construction costs. \$3.5 million was the maximum grant awarded for FY 2009.

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Funding Source	Application Deadline	Adminis-tering Agency	Match Req'd	Max Grant	Eligible Applicants	Transportation	Recreation	Safety/Education	Maintenance and Restoration	Technical Assistance	Paved	Unpaved	Comments
Federal													
Recreational Trails Program	October	FHWA	12%	\$234,000	Public agencies, Non-profit organizations managing public lands	X	X	X	X		X	X	Maximum amount of funds allowed for each project is 88 percent of total project cost. Applicant responsible for obtaining match amount at least 12 percent of total project cost. \$234,000 was maximum grant awarded recently. Went towards the Redwood State Park in 2001.
Rivers, Trails and Conservation Assistance	August	National Parks Service (NPS)	None	NA	State or local agency; tribe; non-profit organization or citizens' group; federal agencies, including NPS, may apply with non-fed partner					X			Projects demonstrating tangible conservation and recreational results in the near future.

Funding Source	Application Deadline	Adminis-tering Agency	Match Req'd	Max Grant	Eligible Applicants	Transportation	Recreation	Safety/Education	Maintenance and Restoration	Technical Assistance	Paved	Unpaved	Comments
Federal													
Transportation, Community and System Preservation Program	Varies	FHWA	20%	\$974,000	States; MPOs; local governments; Tribes	X					X		Intended to integrate transit systems and preserve communities. FHWA does not provide a maximum grant award. \$974,000 was the maximum grant awarded in California in FY 2010.
State													
Bicycle Transportation Account	December	Caltrans	10%	\$1.2 M	Public agencies with a Caltrans approved bicycle plan	X			X		X		Projects must be identified in a Caltrans approved Bicycle Plan.
California Coastal Conservancy	None	California State Coastal Conservancy	None	Varies	Public agencies and non-profits with purposes consistent with California Code Division 21	X	X				X	X	Trails with Statewide significance (CCT).

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Funding Source	Application Deadline	Adminis-tering Agency	Match Req'd	Max Grant	Eligible Applicants	Transportation	Recreation	Safety/Education	Maintenance and Restoration	Technical Assistance	Paved	Unpaved	Comments
State													
California Conservation Corps	None	California Conservation Corps	NA	NA	Public land managers				X				CCC provides labor assistance for maintaining trails.
Community-Based Transportation Planning Program	April	Caltrans	10%	\$300,000	Public agencies; transit agencies; tribes; non-profits	X					X		The purpose of this grant is to fund integrated transportation and land use planning.
Environmental Enhancement Program	November	Caltrans	None	\$350,000	Public agencies; non-profits	X					X	X	Project must be directly or indirectly related to mitigating the environmental impact of an existing transportation facility.
Habitat Conservation Funds	October	California Dept. of Parks and Recreation	50%	None	Public agencies	X	X				X	X	Grant award may also include habitat restoration near trails.

Funding Source	Application Deadline	Adminis-tering Agency	Match Req'd	Max Grant	Eligible Applicants	Transportation	Recreation	Safety/Education	Maintenance and Restoration	Technical Assistance	Paved	Unpaved	Comments
State													
Statewide Park and Community Revitalization Program	March	California State Parks	None	\$5.0 M	Cities, counties, districts and Joint Powers Authorities	X	X				X	X	Projects must be in the most underserved communities in California and part of a development project.
Wildlife Conservation Board Public Access Program	Continuous	Wildlife Conservation Board	None	\$250,000	Public agencies, non-profits		X				X	X	The state must have a proprietary interest in the project.
River Parkways Program	Fall	Resources Agency	None	Approx. \$1M	Governments; non-profits; community organizations		X	X	X		X	X	

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Funding Source	Application Deadline	Adminis-tering Agency	Match Req'd	Max Grant	Eligible Applicants	Transportation	Recreation	Safety/Education	Maintenance and Restoration	Technical Assistance	Paved	Unpaved	Comments
Local													
Article 3 Transportation Development Act	Continuous	Caltrans	NA	NA	NA	X		X	X		X		Funds originate from a Local Transportation Fund originating from a ¼ of one-cent state sales tax increment.
City of Arcata Measure G	NA	City of Arcata	NA	NA	NA	X		X			X	X	This sales tax increment can be used to improve bicycle and pedestrian safety.
City of Trinidad Measure I	NA	City of Trinidad	NA	NA	NA				X				This sales tax increment can be used for trail and park maintenance.
Development Impact Fees	NA	Public land owners	NA	NA	NA	X	X				X	X	Local land owners can require developers to construct trails as part of developments.

Funding Source	Application Deadline	Adminis-tering Agency	Match Req'd	Max Grant	Eligible Applicants	Transportation	Recreation	Safety/Education	Maintenance and Restoration	Technical Assistance	Paved	Unpaved	Comments
Non Traditional													
State Administered Community Block Grant	Continuous	Housing and Urban Development	NA	NA		X	X				X	X	
American Greenways Program	June	The Conservation Fund	None	\$1,200	Non-profit organizations and public agencies		X				X	X	Purpose is to stimulate trail and greenway planning.
Bikes Belong	Continuous	Bikes Belong	None	\$10,000	Non-profit organizations and public agencies	X	X				X	X	Grants may be used for facility implementation and advocacy efforts.

Appendix N: Trail Demand

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Appendix N: Trail Demand

This Plan estimates CCT demand in two ways:

1. Local Demand: Based on Humboldt demographic data and a model developed for Caltrans
2. Tourist Demand: Based on tourism figures and local, regional and national surveys and data

Both methodologies use local data to develop a reasonable estimate for annual CCT use. Together, they provide an understanding of how the trail will contribute to local recreation and transportation use of the trail, foster the continuing development of Humboldt County as a destination, and provide one reason of many for funding justification.

Local Demand

This Plan relies on a bicycle and pedestrian demand model to forecast local resident use of the Humboldt CCT by reach as defined in Chapter 2 of this Implementation Strategy. The Seamless Travel Model was developed by Alta Planning + Design for Caltrans in response to similar needs around the state for quantitative demand estimates of potential non-motorized activity. The Seamless Model is a predictive formula used to estimate bicycle and pedestrian activity based on over two years of count and survey data from multipurpose pathways in various San Diego County geographic settings.

The Seamless Model was created and tested using pedestrian and bicycle count data and available GIS data. Separate bicycle demand and pedestrian demand models were created, reflecting the unique characteristics of trip-making between the modes. The models were developed through several iterations, each exploring the data through a different analysis, in order to arrive at models of bicycle and pedestrian travel that are informative, intuitive, and easy to use.

Over thirty independent variables likely to affect walking and bicycling were screened for correlation with the dependent variables of bicycle and pedestrian counts, respectively. Variables not shown to correlate with the dependent variable at the ninety percent significance level were removed from the analysis for each dependent variable. The most correlated independent variables include population density, employment density, and presence of a multipurpose path. The resulting regression analysis provided the following model formulas that serve as a baseline for estimated activity.

Pedestrian model:

$$\text{EXP}(P_{AM}) = 1.555 + 0.723 * \ln(\text{ED}) + 0.526 * \ln(\text{PD}) - 1.090 * \ln(\text{R})$$

Where:

P_{AM} = Morning peak pedestrian activity

ED = Employment density within a half mile

PD = Population density within a quarter mile

R = Presence of retail within a half mile

Bicycle model:

$$\text{EXP (B}_{\text{AM}}) = -4.279 + 0.718 * \ln(C) + 0.438 * \ln(\text{ED})$$

Where:

B_{AM} = Morning peak bicycle activity

C = Footage of Class I Bicycle Path within a quarter mile

ED = Employment density within quarter mile

The key data sources used in the Seamless Model include:

- Population density derived from the 2000 U.S. Census
- Employment density based on data from InfoUSA
- The presence of Class I multipurpose pathways accommodating both pedestrians and bicyclists (in this case the assumption is that the preferred CCT alignment is in place)

The Seamless Model was developed with data from sources from San Diego County; however, the model is applicable to Humboldt County and other locations based on the following considerations and assumptions. The Seamless Model is the only non-motorized predictive model based on multiple years of pedestrian and bicycle count data, surveys, and analysis of factors that influence biking and walking. Its robust data sources and vigorous statistical analysis make it the most relevant and useful predictive model to date and thus it is increasingly being adapted and applied to forecasting in a wide range of communities. Additionally, though Humboldt County differs from San Diego County in many ways, both are counties with active communities who enjoy temperate climates on California's coast.

The model formula was applied to local Humboldt population and employment density data, and the presence of retail activity and existing bicycle paths within a buffer zone around recommended routes to predict trail use. The Seamless Model separates bicycle and pedestrian formulas that are then combined to show total predicted local activity.

When comparing levels of use among regional trail systems, annual usage is the most commonly available number and most easily understood measure for a variety of audiences. Because the Seamless Model produces peak morning activity as its primary output it is necessary to apply several levels of adjustment in order to arrive at the annual estimate. Annual CCT activity was developed using adjustment formulas developed as a part of the National Bicycle and Pedestrian Documentation Project (NBPD), an annual count and survey effort sponsored by the Institute of Transportation Engineers (ITE). The adjustment figures enable extrapolation from the Seamless AM peak estimates by accounting for daily, weekly, and seasonal variation.

The total local demand for the Humboldt County CCT is estimated to be 661,000 annual trips, as shown in Table N-1: Local CCT Annual Demand by Reach. The total local annual demand for the Humboldt CCT is the sum of demand by reach developed with the Seamless Model and the NBPD adjustment figures. The NBPD

adjustment figures are figures used to adjust peak hour activity to annual activity. It is based on over two years of continuous automatic count data that takes into account daily, weekly, and seasonal variation.

Table N-1: Local CCT Annual Demand by Reach

Reach	Projected Local Annual Demand (trips)
N1. Redwood National Park and Prairie Creek Redwoods	3,000
N2. Orick	11,000
N3. Lagoons/Patrick's Point	5,000
N4. Trinidad	36,000
C1. Little River/Clam Beach/Hammond Trail	35,000
C2. Arcata Bottoms - North	30,000
C3. Humboldt Bay/Manila	17,000
C4. Arcata/Eureka Corridor (Humboldt Bay)	63,000
C5. Eureka Waterfront	299,000
C6. Palco Marsh/Elk River	75,000
C7. South Bay	63,000
S1. Loleta/Eel River	10,000
S2. Ferndale	7,000
S3. Mattole Road	2,000
S4. Petrolia	1,000
S5. King Range	4,000
Total	661,000

The total local demand estimates by reach show the number of person-trips made annually by residents for both recreation and transportation purposes. These numbers represent local travel and do not estimate tourism demand.

Because this model uses population and employment density to estimate potential trips, there are limitations in capturing nuances of trip behavior in rural areas and large areas of public land.

Tourism demand will increase the number of trips in many of the reaches located in the national, and state parks and recreation areas such as N1, N2, and S5. These assumptions are highlighted in Table N-8.

However, there is not reliable proxy, such as tourist demand, to further quantify the number of trips in rural areas of the county. It is understood that in areas where the CCT is aligned with the primary routes used for local travel that these routes might receive higher use than estimated by this model. In other words, local residents will likely make more trips to access the coast and coastal amenities than are estimated by the model's assumptions related to normal daily trips. For example, residents of Petrolia may use sections of the coastal trail or coastal access points for recreation more often than would be apparent from the factors generated through population and employment density.

Tourist Demand

Nearly 1.3 million tourists visit Humboldt County each year¹ and tourists are likely to make up a large share of CCT users. This section presents Humboldt County visitor data and Humboldt County trail and park use data to provide background for tourist preferences and activity. This is followed by an estimate of tourist demand for the CCT in Humboldt County.

Visitor Trends in Humboldt County

Humboldt County is a premier outdoor enthusiast’s destination. As Figure N-2: Humboldt County State Park Visitors (2002-2009) shows, nearly all of Humboldt’s 1.3 million annual visitors are interested in the Redwoods or coastline.

One unit of measurement used to track visitor trends is the transient occupancy tax (TOT), which is levied for the occupation of a room in a hotel, campsite, or other lodging used for less than thirty days. Visitors account for over four million dollars in TOT per year since 2004, an amount that has increased every year except 2008.

With the development of the CCT as a tourist destination providing regional non-motorized access to Humboldt’s scenic coastline, the number of visitors and resulting TOT is likely to increase.

Table N-2: Visitor Trends

Activity	% of Visitors
Redwood Trees and Parks	94%
Coastline and Beaches	90%
Scenic Drives	87%
Museums	65%
Rivers and Mountains	64%
Shopping	57%
Fine Dining	56%

Recreational Activity in Humboldt County

Humboldt County’s forests, parks, and trails are enjoyed by a significant number of people. The following overview of activity at some of the county’s recreational areas provides a reference for potential visitors and users of the CCT.

Redwood National Park

The Redwood National Park (RNP) is located in northwest Humboldt County and offers a well-used trail network. Table N-3: Redwood National Park Visits shows the steady number of visitors per year to RNP

¹ Humboldt County Convention and Visitors Bureau, Humboldt Tourism Statistics, 2009.

between 2001 and 2007. Recommended CCT segments N1.04 and N2.04 will directly connect to the RNP. Overall, approximately 400,000 people visit RNP annually and are potential CCT users.

Table N-3: Redwood National Park Visits

Year	# of Visitors
2000	383,246
2001	388,389
2002	404,787
2003	410,498
2004	396,402
2005	394,144
2006	383,780
2007	378,068

The RNP also counts users at the Tall Trees, Lady Bird Johnson, and Redwood Creek trailheads. Table N-4: Redwood National Park Trailhead Counts (2004-2007) shows a steady increase in trail use, overall. While any of these users may use the CCT, those at Redwood Creek are most likely to use the CCT, given that it will directly connect to recommended CCT segment N1.04.

Table N-4: Redwood National Park Trailhead Counts (2004-2007)

Year	Tall Trees Grove	Lady Bird		Redwood Creek	Total
		Johnson Grove			
2004	7,252	32,364		49,774	89,390
2005	6,393	32,466		54,987	93,846
2006	6,236	50,586		42,644	99,466
2007	7,154	61,551		42,340	111,045

Bureau of Land Management

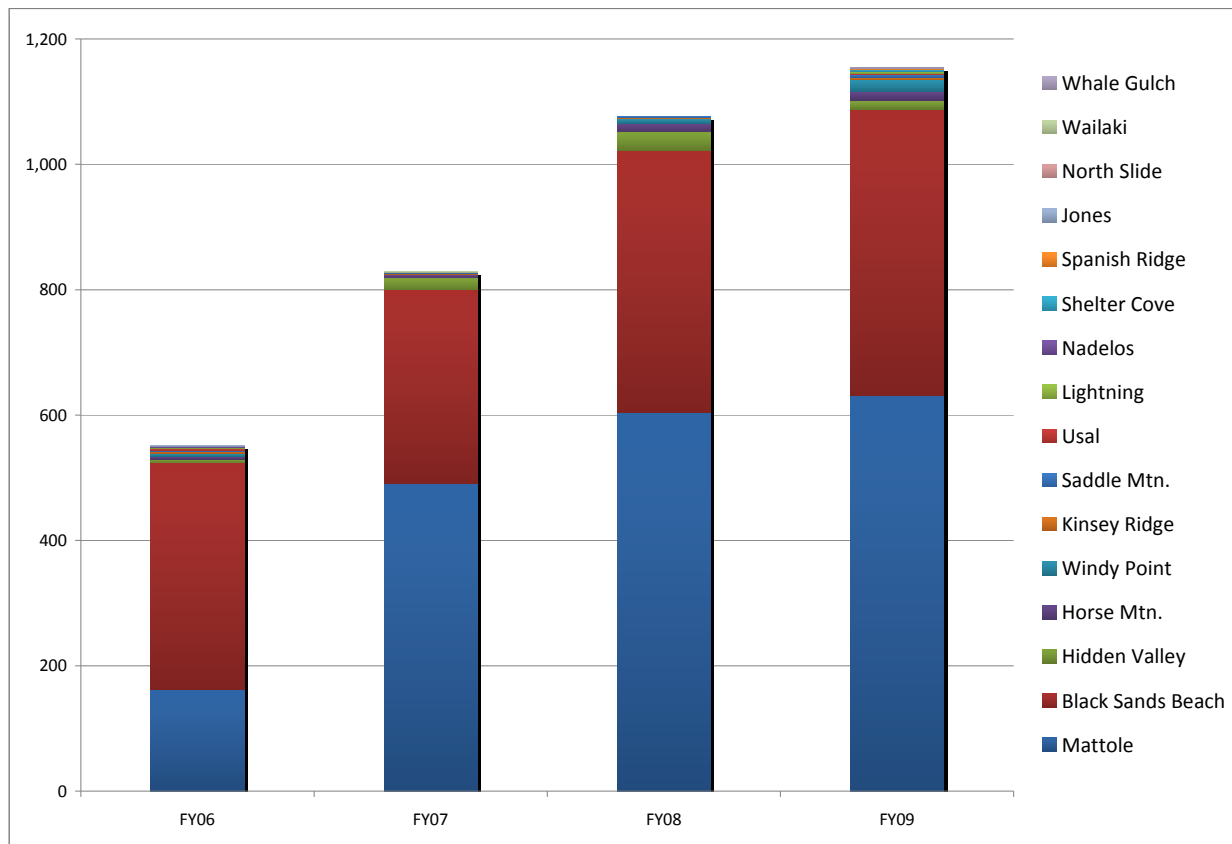
The Bureau of Land Management manages the King Range, a National Conservation Area in southwest Humboldt County frequented by backcountry hikers. Since 2006, the BLM has issued increasing numbers of permits every year. In 2009, nearly 4,000 people obtained permits for accessing the King Range and using many of its trails. Figure N-1: Lost Coast Trail Visits by Trailhead Entry (2006-2009) shows the annual number of permits issued between 2006 and 2009.

Table N-5: King Range Trail Visits (2006-2009)

Year	User Permits
2006	1,819
2007	2,775
2008	3,451
2009	3,898

Of the many hiking trails in the King Range, the Lost Cost Trail (LCT) is the most popular, with nearly 1,200 users recorded in 2009. This Plan identifies the LCT as CCT primary segment S5.04. Over 600 LCT users entered at the Mattole trailhead in 2009, the most popular trailhead entry point. Figure N-1: Lost Coast Trail Visits by Trailhead Entry (2006-2009) charts the number of LCT users by trailhead entry and year, showing a gradual increase in the number of permits issued annually.

Figure N-1: Lost Coast Trail Visits by Trailhead Entry (2006-2009)



United States Fish and Wildlife Service

The United State Fish and Wildlife Service (USFWS) manages land as well as fishing and hunting on various locations around Humboldt Bay. The USFWS tracks the number of visitors at its Humboldt Bay National Wildlife Refuge and Castle Rock Complexes, potential users of the CCT. The number of visitors has increased in previous years, with over 70,000 people visiting in 2008. Table N-6: Humboldt Bay and Castle Rock Complex Visits (2006-2008) shows the number of visitors between 2006 and 2008. Note that the USFWS installed automated counters in 2007. Automatic counters are more accurate at tracking activity than permits issued.

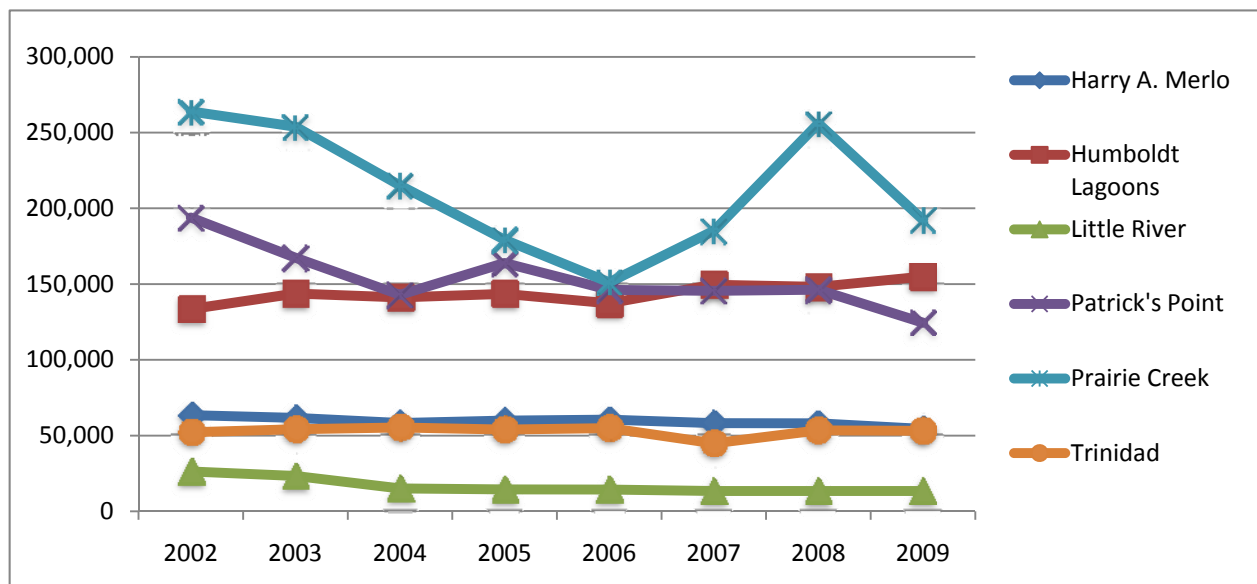
Table N-6: Humboldt Bay and Castle Rock Complex Visits (2006-2008)

Year	Visits
2006	45,958
2007	61,196
2008	70,336

State Parks

Recommended CCT alignments pass through or near six state parks and many Humboldt County state parks visitors are likely to use the CCT. Between 2002 and 2009, over five million people visited state parks along the Humboldt Coast, averaging approximately 639,000 people annually. Of these six state parks, Prairie Creek State Park had the most annual visitors (212,102) and Little River State Beach had the fewest visitors (16,707). Figure N-2: Humboldt County State Park Visitors (2002-2009) charts the attendance for the six parks between 2002 and 2009.

Figure N-2: Humboldt County State Park Visitors (2002-2009)



Analysis of Comparable Trails

Similar regional trails throughout the United States can be used as a reference for comparison of projected demand for the CCT. The four trails selected for comparison are the Appalachia Trail, San Francisco Bay Trail, Pacific Crest Trail, and Pacific Northwest Trail.

Appalachian Trail

The Appalachian Trail is one of the oldest (1937), longest (2,174 miles), and best known and used trails in the United States. The trail starts at the summit of Mt. Katahdin in Maine and terminates at the summit of Springer Mountain in Georgia. The trail was originally laid out in the 1920s by volunteers, and was developed and managed by the National Park Service in collaboration with the Appalachian Trail Conference and its thirty-one member trail clubs. Much of the original alignment was located on private land. In order to protect the route, the National Trails Systems Act was passed by Congress to facilitate acquiring land and easements for the trail, which is now ninety-nine percent on publicly controlled land. Over 4,000 volunteers work more than 175,000 hours annually on the trail.

In some respects, the Appalachian Trail is comparable to the CCT. The Appalachian Trail extends along much of the eastern United States as the CCT will extend along much of the western coastline. Along both trails, users will encounter untouched wilderness and rugged terrain with opportunities for camping. The Appalachian Trail differs substantially from the CCT in that it has a long history, passes through many mountain regions with diverse recreation-based economies, and has many hiker and backpacker facilities located directly along the trail itself, such as developed tent sites in many states, and fully-serviced mountain huts and hostels in New Hampshire and Vermont. Furthermore, the Appalachian Trail benefits from a diverse network of local hiking clubs from Georgia to Maine, that provide volunteer maintenance support and are regular users of trail segments.

Approximately three to four million people hike the Appalachian Trail annually inclusive of local day trips, multi-day trips and “through hikers” trekking from Georgia to Maine.

San Francisco Bay Trail

The Bay Trail is a 400 mile long trail and pathway system encircling the San Francisco Bay, and linking all nine Bay Area counties and forty-seven of its cities. The Bay Trail is a project of a non-profit organization housed within and supported by the Association of Bay Area Governments (ABAG), the regional planning agency for the San Francisco region. The trail was authorized by state law in 1987. The ‘trail’ consists of both paved and unpaved sections, and on-road and off-road segments, including all of the region’s bridges.

The concentrated development and population around San Francisco Bay contributes to high rates of Bay Trail use, much like what is expected on the CCT in the vicinity of Humboldt Bay, though at a lesser scale.

The Bay Trail Gap Analysis Report (2005) estimated thirty-seven million trips made annually on the Bay Trail.

Pacific Crest Trail

The Pacific Crest Trail is a 2,650 mile long trail that extends between the Mexican and Canadian borders by passing through California, Oregon, and Washington. The trail connects to destinations such as Mt. Whitney, Yosemite National Park, Mt. Shasta, Mt. Hood, Crater Lake, and Mt. Rainier. The trail alignment was developed between 1935 and 1938 by volunteers of teams of young hikers (ages fourteen to eighteen) under the direction of the YMCA. The 1968 National Trails Act called for the formation of a Pacific Crest National Scenic Trail Advisory Council. A non-profit group, the Pacific Crest Trail Association, was formed in 1977 to support the development and management of the trail. The trail was completed in 1993. Campgrounds are provided at existing national forests and national parks along the trail.

Like the PCT, the CCT is expected to attract users from all over the nation and world, some using the trail for a day, while others attempt to hike the entire length. Unlike the PCT, the CCT is in close proximity to many urban areas, increasing its accessibility and potentially its usership.

The Pacific Crest Trail Association issues permits to use the trail, one method to determine estimated activity. Two types of permits are issued, section and through. Section permits are for users planning trips less than 500 miles, whereas through permits are for users planning trips more than 500 miles. Each permit may be used for up to six people, but most are for single users. As of May 2010, 489 section and 228 through permits were issued compared to 477 and 435, respectively in 2009.²

Pacific Northwest Trail

The Pacific Northwest Trail (PNT) was formed in 1977 and is a 1,200 mile long trail extending between Glacier National Park in Montana on the Continental Divide, and Olympic National Park in Washington. The trail has forty-four individual segments that are partially developed, and has no specific campgrounds or other support facilities. The trail is managed by the non-profit Pacific Northwest Trail Association (PNTA) that has one paid staff person and many volunteers, including several volunteer trail maintenance groups. PNTA has also received numerous large grants from private donors, including the Ford Motor Company. The National Park Service has identified several segments of the trail as National Recreational Trails. One of the most unique aspects of the trail organization is a group called SKY (Service Knowledge Youth) that brings in young people to learn about the environmental, trail development and maintenance, and other educational topics.

The western extent of the PNT is the most similar to the CCT in topography and proximity to trail user generators and attractors. It is dotted with communities around the Puget Sound, which is surrounded by coastal mountain ranges.

Annual user counts vary along the PNT, depending on its proximity to population centers. The PNTA issues about one dozen through permits annually; this is in contrast to over 100,000 users counted near Sequim, Washington each year.

² Pacific Crest Association, phone correspondence, May 17, 2010. Note: Many through permits are issued in May and June and thus are expected to increase over 2009.

Tourist Demand Estimate

With the knowledge of Humboldt County annual visitor activity, interest in the coastline, recreational use, and activity in similar regional trail systems, a tourist demand estimate for the CCT in Humboldt County can be developed.

Table N-7: Estimated Tourists that Will Use the CCT Annually outlines the methodology used to develop a tourist demand estimate. According to the Humboldt County Visitors Bureau, 1.3 million people visit Humboldt County annually. The Visitors Bureau also found that ninety percent of visitors to the County are interested in the Coastline. It is assumed that those interested in the Coastline may be interested in the CCT. A State Park survey found that seventy-six percent of park users use trails. This methodology assumes that of those who visit the County and who are interested in the Coastline, seventy-six percent are potential CCT trail users. That is nearly 900,000 potential users. National studies have found that capture rates of those interested in trail use is approximately twenty percent. It is estimated the Humboldt CCT could attract over 178,000 tourists annually.

Table N-7: Estimated Tourists that Will Use the CCT Annually

Factor	Figure/Calculation
Annual Humboldt County Visitors*	1,300,000
90% of Humboldt Visitors are Interested in the Coastline*	$\times .90$
Visitors Interested in the Coastline	1,170,000
76% of State Park Visitors use Trails**	$\times .76$
Potential Trail Users	889,200
20% of Potential CCT Users will use the CCT***	$\times .2$
Estimated Annual Tourist Use of Humboldt CCT***	178,000

*Humboldt County Visitors Bureau

** California Department of Parks and Recreation Survey, 2009

*** Estimated capture rate based on transportation studies nationwide.

**** Rounded to the nearest thousand

Most of the 178,000 tourists will originate in population centers or at parks, resulting in segments with higher use. The Humboldt Bay Trail will most likely experience the highest use, given its close proximity to Eureka and Arcata. People will use this segment frequently and in short time durations. In contrast, the segments dotted by campgrounds in the Kings Range, State Parks and the Redwood National Park will potentially experience high usership in longer trip durations concentrated during the summer months.

Demand Summary

Together, the local and tourist demand projections developed using Humboldt County data show demand for the CCT is estimated to be 661,000 annual local trips with 178,000 visitors anticipated. The estimated demand is dependent on existing land use patterns and tourist activity trends. Should trail implementation be coupled with increased non-motorized encouragement programs and increased tourism, demand for the CCT is likely to increase beyond the numbers projected within this document. While the tourism demand cannot be allocated reliably by reach, it is clear that some areas will receive more trips from visitors – such as the national and state parks. Table N-8: Local CCT Annual Demand by Reach provides a summary of assumptions related to potential combinations of tourist and local demand.

Table N-8: Local CCT Annual Demand by Reach with Assumptions

Reach	Projected Local Annual Demand (trips)	Tourism Assumptions
N1. Redwood National Park and Prairie Creek Redwoods State Park	3,000	This reach will have significant trips associated with tourism. Major attractions such as Fern Canyon and Gold Bluffs Beach are located on along the coastal trail.
N2. Orick	11,000	Demand here includes employment density generated by the park.
N3. Lagoons/Patrick's Point	5,000	This reach will have significant trips associated with tourism. During peak season, Patrick's Point is a well utilized park with locals and tourists hiking the Rim Trail to access viewpoints and beaches.
N4. Trinidad	36,000	Trinidad is one of the most scenic communities along the Humboldt coast. There is an existing trail network already well utilized by local residents and visitors.
C1. Little River/Clam Beach/Hammond Trail	35,000	
C2. Arcata Bottoms - North	30,000	
C3. Humboldt Bay/Manila	17,000	
C4. Arcata/Eureka Corridor (Humboldt Bay)	63,000	The Arcata Marsh attracts visitors for wildlife viewing and coastal access. The proposed east alignment of the CCT will connect directly to the marsh and other areas of the bay making it an attraction for tourists.
C5. Eureka Waterfront	299,000	The Eureka Waterfront hosts community events throughout the year. The actual annual demand for portions of the CCT may be higher when those large events are considered.
C6. Palco Marsh/Elk River	75,000	
C7. South Bay	63,000	
S1. Loleta/Eel River	10,000	
S2. Ferndale	7,000	The City of Ferndale is currently a tourist destination unrelated to coastal access. The designation of the trail will likely attract use from many of the existing tourists and attract others.
S3. Mattole Road	2,000	
S4. Petrolia	1,000	
S5. King Range	4,000	
Total	661,000	661,000

Appendix O: Tips for Trail Development in the Coastal Zone

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Appendix O: Tips for Trail Development in the Coastal Zone

This section discusses strategies municipalities can employ to update Local Coastal Programs (LCPs) to fully address coastal access policies and ensure CCT route designation. The inclusion of CCT routes in LCPs will warrant official designation by the Coastal Commission, help ensure agreement on CCT alignments, and provide opportunities to leverage private development to complete CCT segments. This appendix also details tools that municipalities may employ to plan for successful trail development in the coastal zone. Many jurisdictions throughout California have successfully completed trail projects through sensitive land uses and habitat areas by carefully designing projects to offer increased public access while complying with other priorities in the Coastal Act. Finally, this appendix briefly touches on design and mitigation considerations for selecting the least environmentally damaging feasible design alternative for trail projects.

CCT Routes and Coastal Access Policies in Local Coastal Plans

The California Coastal Commission (Commission) considers segments of the CCT officially designated when the route is formally described in an LCP. As many jurisdictions' LCPs were last certified before the completion of the CCT was deemed a priority for the Commission by the California legislature in 2001, most LCPs do not include a thorough discussion of CCT routes and policies. During any significant LCP amendment, the Commission encourages jurisdictions to also give consideration to updating CCT routes and coastal access policies. Besides serving to officially designate completed portions of the CCT, having recommended CCT routes designated in an LCP would help encourage private development to complete recommended CCT segments and help public agencies with permitting CCT projects. Designating the CCT route in an LCP will also protect the corridor from other development. Additionally, many jurisdictions have LCPs certified within the Land Use Plan of their General Plan. Commission staff recommend that comprehensive LCP updates include a separation of policies specific to the coastal zone into a stand-alone LCP document.

Below are examples of CCT policy language from the City of Crescent City's LCP, recently submitted to the Commission for a comprehensive update. These example CCT public access policies can be modified for incorporation into other LCPs to reflect specific CCT planning considerations and partnerships unique to each jurisdiction¹.

- The city shall strive to complete the links in the California Coastal Trail (CCT) by participating and consulting with the National Park Service, the State Department of Parks & Recreation, the State Coastal Conservancy, the County of Del Norte, the Elk Valley Rancheria, other tribal governments, and other appropriate public and private entities and interested parties in designing, locating, funding, acquiring, and implementing the City of Crescent City California Coastal Trail (CCT) segment, including opening trails for vertical access as identified within the city's coastal access inventory. The CCT shall be identified and defined as a continuous, interconnected trail system traversing the length of the state's coastline and designed and sited as a continuous lateral trail traversing the length of the city's Coastal Zone and connecting with contiguous trail links in adjacent unincorporated Coastal jurisdictions (Del Norte County). The CCT segment through the city's portion of the coastal zone shall be designed to foster

¹ City of Crescent City LCP Amendment, 2010

appreciation and stewardship of the scenic and natural resources of the coast. The trail system is to be located on a variety of terrains, including the beach, footpaths, paved bicycle paths, and sometimes along the shoulder of the road. While primarily for pedestrians, the CCT also accommodates a variety of additional user groups, such as bicyclists, wheelchair users, equestrians, and others as opportunities allow.

- The city shall take the lead responsibility and will consult with the National Park Service, the California Department of Parks and Recreation, the State Coastal Conservancy, the California Coastal Commission, and the County of Del Norte, tribal governments, and other appropriate public and private entities and interested parties regarding designing, locating, finding, acquiring, and implementing the CCT.
- The CCT shall be a continuous lateral trail network traversing the length of the city's coastal zone and connecting with contiguous trail links in adjacent county jurisdictional areas.
- Existing segments of the CCT within the city's jurisdictional area include at least the following:
 - The CCT shall consist of one or more parallel alignments. At least one strand shall be designated and implemented to achieve one or all of the following objectives:
 - Provide a continuous walking and hiking trail as close to the ocean as possible.
 - Provide maximum access for a variety of non-motorized users by utilizing alternative trail segments where feasible.
 - Maximize connections to existing and proposed local trail systems.
 - Ensure that all segments of the trail have vertical access connections at reasonable intervals.
 - Maximize ocean views and scenic coastal vistas.
 - Provide an educational experience through interpretative facilities where feasible.
 - Specific siting and design standards shall include:
 - The trail shall be sited and designed to be located along or as close to the shoreline where physically and aesthetically feasible. Where it is not feasible to locate the trail along the shoreline (due to natural landforms or legally authorized development that prevents passage,) inland bypass trail segments located as close to the shoreline as possible should be utilized. Shoreline trail segments that may not be passable at all times shall provide inland alternative routes. Special attention shall be given to identifying any segments that may need to be incorporated into water-crossing structures and that necessarily must be placed within Caltrans right-of way.
 - Where gaps are identified in the trail, interim segments shall be identified to ensure a continuous coastal trail. Interim segments shall be noted, with provisions so when opportunities arise, the trail shall be realigned for ideal siting. Interim trail segments shall meet as many of the CCT objectives and standards as possible.
 - The CCT shall be designed and located to minimize impacts to environmentally sensitive habitat areas and prime agriculture lands to the maximum extent feasible. Where appropriate, trail access shall be limited to pass and repass. Where necessary to prevent disturbance to sensitive species, sections of the trail may be closed on a seasonal basis. Alternative trail segments shall be provided where feasible. For situations where impact avoidance is not feasible, appropriate mitigation measures shall be identified, including but not limited to use of boardwalks, reducing width of trails,

converting edges of agricultural land to public trail use when the minimal amount of conversion is used, etc.

- The CCT shall be located to incorporate existing oceanfront trails and paths and support facilities of public shoreline parks and beaches to the maximum extent feasible.
- The CCT shall be designed to avoid being located on roads with motorized vehicle traffic where feasible. In locations where it is not possible to avoid siting the trail along a roadway, the trail shall be located off of the pavement, within the public right-of-way, and separated from traffic by a safe distance or by physical barriers that do not obstruct or detract from the visual scenic character of their surroundings. In locations where the trail must cross a roadway, safe under- or over-crossings or other alternative at-grade crossings shall be considered in connection with appropriate directional and traffic warning signage.
- Trail easements shall be obtained by encouraging either private donation, public purchase, or by dedication of trail easements required pursuant to a development permit.
- The CCT alignment study shall identify the appropriate management agency(s) to take responsibility for trail operation and maintenance.
- The trail shall provide adequate signage at all access points, trailheads, parking lots, road crossings, and linkages or intersections with other trails or roads and shall incorporate the state adopted CCT logo.
- The trail shall provide adequate safety signage, including but not limited to, road crossing signs and yield/warning signs on multi-use trail segments. Del Norte County Community signs shall be developed in coordination with Caltrans, where appropriate.
- Development Department – Roads Division, tribal entities, and/or any other applicable public agencies or nonprofit organizations.
- To maximize access to the CCT, adequate parking and trailhead facilities shall be provided.
- The final CCT map shall identify all finally planned or secured segments, including existing segments, all access linkages and planned staging areas, public and private lands, existing easements, deed restricted sections and sections subject to an offer-to-dedicate (OTD). Where property ownerships or other constrictions make final alignment selection unfeasible, a preferred corridor for the alignment shall be identified. The map shall be updated on a regular basis.
- The CCT preferred alignment corridor shall be identified on all applicable city trail maps contained in the LCP, including updated public access, recreational and public facilities inventories.
- Within one year of the completion of the CCT Alignment Study, the LCP shall be amended to incorporate all plans and designs for locating and implementing the CCT within the city, including the final maps of the trails and corridor alignments.

Specific guidance on incorporating these coastal access policies in appropriate sections of the LCP can be gained from discussion with Commission staff and review of detailed Coastal Commission meeting agendas posted on the Coastal Commission website.

Tools for Successful Trail Development in the Coastal Zone

Coastal Development Permit Review

The Commission reviews coastal development permits for municipal projects proposed in the coastal zone for consistency with the local LCP or Coastal Act, depending upon the coastal zone jurisdiction (local jurisdiction or Commission jurisdiction, respectively). Local jurisdictions with certified LCPs in Humboldt County include the City of Trinidad, City of Arcata, City of Eureka, and the County of Humboldt, which has its LCP broken out into six land use plans within its General Plan. These local LCPs are the standard of review for projects proposed within coastal zone under local jurisdiction. Projects (or CCT segments) that cross federally-managed lands need coastal policy consistency determination by the federal consistency division of the Commission. However, CCT development led by a local entity on federal land could be covered by a coastal development permit.

Table O-1 outlines the coastal zone permitting jurisdiction and applicable standard of review for each recommended Humboldt CCT segment. In many cases, a CCT segment crosses multiple coastal zone jurisdictions, and all applicable jurisdictions and standards of review are outlined for the entire segment. Municipalities and organizations looking to implement a CCT segment should identify the standard of review for development in the coastal zone to prepare a coastal development permit for the project that ensures consistency with applicable policies.

Minor CCT route improvements may not need to undergo complete compliance review. The Commission can process coastal development permit waivers for minimal development such as carsonite sign installation. Additionally, CCT signage installation onto existing structures for an existing CCT route can be done without a permit as there is an exemption in the Coastal Act for improvements to existing structures.

Coastal Act Conflict Resolution Tool

The Coastal Act and LCPs establish the importance of California's coastal areas and the need to protect their ecological balance while ensuring public access to the coast and coastal resources. While development should not interfere with coastal resources or negatively impact the coast or scenic qualities, providing and improving public access is also a high priority in the coastal zone. Conflicting situations can arise for proposed public access projects when not pursuing the project would violate public access sections of the LCP or Coastal Act, but implementing the project would not be compliant with resource protection.

For situations in which conflict arises between one or more policies of the Coastal Act, the Commission can apply a tool (Section 30007.5 of the Coastal Act) called conflict resolution to determine which policy (e.g. public access or resource agricultural land protection) is

Rose Creek Bikeway

The Rose Creek Bikeway and Pedestrian Bridge was recently approved by the Coastal Commission as a public access project. The project connects two existing pedestrian/bikeway trails by installing a bridge over the Rose Creek. The bridge will connect two existing portions of a public bikeway that extends around Mission Bay, while improving safety for pedestrians and bicycles by diverting trail users from an adjacent busy highway. Additionally, the project will improve recreation opportunities and public access to the coast in the Mission Bay area. The Commission determined that a proposed 100 sq. ft. of wetland impacts necessary to build the proposed bikeway segment are justified due to the resulting public good including enhanced public safety and accessibility of the Rose Creek Bikeway.

more protective in the context of the project. If there is a decision between improving public access to the coast and protecting wetland resources and no other viable alternative to avoid resource impacts exists, the Commission may decide that building a trail is more beneficial to coastal resources.

Public access projects impacting wetlands and requiring wetland fill may be approved through a balancing resolution if the trail is a coastal or resource dependent use that will provide public access and recreation while potentially allowing for nature study. The Rose Creek Bikeway case study in San Diego, is a trail development project that navigated these issues^{2,3}.

Public Works Plans

Coastal Act Section 30605 allows jurisdictions to submit Public Works Plans (“PWP”) to the Coastal Commission as an alternative to project-by-project coastal development permit review for public access projects. The PWP process allows for an efficient and expeditious process for planning and implementation of public works projects, and can eliminate the need to coordinate permit processing through separate jurisdictions and/or processing numerous permits for individual projects. Jurisdictions can also bundle the CEQA process within a PWP in order to streamline the permitting process. Coastal public access projects, such as CCT development, are able to be considered in a public works plan by the Commission.

In a PWP, the concept for a bundling of projects is reviewed together for consistency with the standard of review, either the LCP or Chapter 3 policies of Coastal Act depending upon coastal zone jurisdiction. All PWPs are reviewed by the Commission and not a local jurisdiction. Once a PWP is certified by the Commission, subsequent review by the Commission of any specific project contained in the PWP is limited to imposing conditions to ensure consistency of the project with the PWP. PWPs are in existence until they are amended and are the functional equivalent of an LCP in a more localized area.

A PWP could be used to coordinate across jurisdictions for planning several stages of a broad-scale project at once (i.e. multiple segments of the CCT through Humboldt County). In order to be eligible to utilize a PWP, the project must be a publicly financed public access project and works best if there is one applicant entity. Although maintenance is mostly exempt from coastal permits, larger-scale activities such as levee maintenance could be served by a PWP used to plan for long-term maintenance improvements of existing infrastructure.

Design and Mitigation Considerations in the Coastal Zone

Project designs in the coastal zone often need to consider environmental and wetland resource protection and visual resource protection. Railing, fencing, and access control designs should be prioritized that reduce impacts to public views of the coast. Likewise, downcast lighting designs are often preferable to minimize light pollution. Flexible carsonite posts (six feet x two inch by one inch posts with two inch by two inch stickers with words and symbols indicating: No Camping, No Dogs, No Horses, etc.) are appropriate in the coastal zone near sensitive snowy plover habitat as they deter perching by raptors.

Additionally, low impact construction methods will reduce impacts to sensitive areas. Low impact construction methods include: the exclusive or partial use of hand tools, flagging or staking sensitive resource areas, the creation of heavy equipment exclusion zones, limiting construction vehicles to specified access points, timing

² www.sandiego.gov/engineering-cip/projectsprograms/rosecreek.shtml

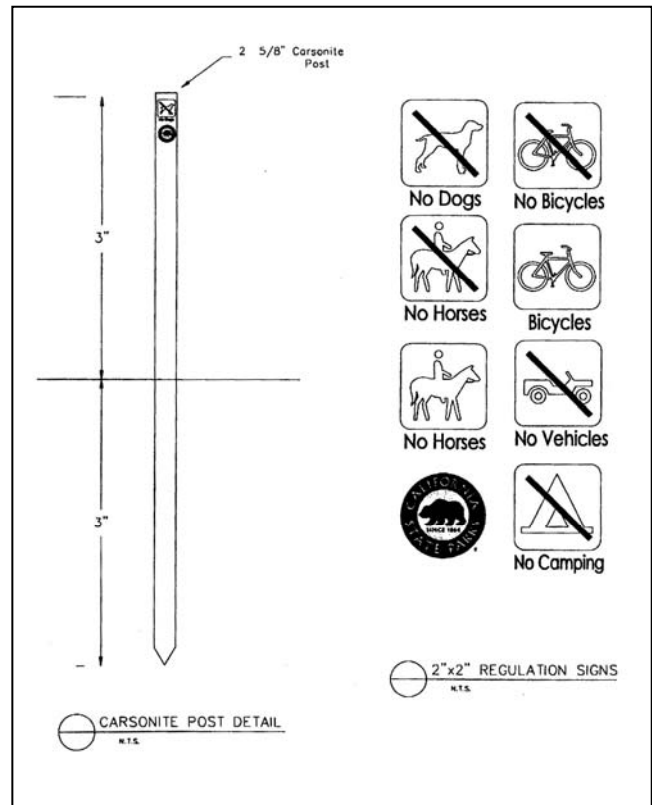
³ City of San Diego Staff Report, 2010

construction activities to avoid nesting, breeding or spawning seasons and the utilization of erosion control best practices.

Bridge design is vitally important for both resource protection and public access enhancement and is frequently a serious consideration for approval of a project in the coastal zone. Many segments of the Humboldt CCT will require bridge crossings and should involve careful consideration of coastal resources. In cases where wetlands or other Environmentally Sensitive Habitat Area (ESHA) are proposed to be impacted, the Commission is required to approve the least environmentally damaging feasible alternative. Reducing wetland fill impacts by avoiding bridge footings in the stream zone are more likely to be approved by the Commission.

As an example, the City of San Diego considered three bridge designs and two different construction methods for the crossing of Rose Creek. The least environmentally damaging feasible alternative for bridge design involved a cast-in-place, clear-span bridge. Alternatives included two and four pier bridges using a berm or trestle method. These designs had a greater impact to wetlands due to the need for more structural support which require more in-stream footings and thus greater impacts to wetlands.

Despite efforts to reduce resource impacts for public access improvements, many projects will require mitigation to offset disturbance to sensitive areas. For example, the construction of the Rose Creek Bridge will result in permanent impacts to approximately 100 square feet of disturbed coastal salt marsh vegetation, and 675 square feet of disturbed upland habitat. Required mitigation involved a 4:1 replacement ratio and occurred on the City of San Diego's Stribley Marsh, located approximately 0.7 miles from the proposed Rose Creek Bridge site. The city is constructing a seven and a half acre wetland to offset anticipated mitigation needs for future projects.



Carsonite boundary markers are appropriate for coastal areas with sensitive wildlife

Table O-1: Coastal Zone Permitting Jurisdiction and Standard of Review by Segment

Segment	Segment Description	Coastal Zone Jurisdiction	Standard of Review
North			
N1.04	From the existing Skunk Cabbage Trail, onto proposed Redwood National Park "Trail X" to intersection with US 101. Cross US 101 to trail on the east side of 101 just south of Davison Rd. Then south to connect with old haul road and the former Green Diamond Resource Company/Orick mill, then on to Bald Hills Road. From Bald Hills Road, over bridge to intersect with US 101.	Inland	
N2.01	Multipurpose trail on north Redwood Creek levee to the US 101 bridge	Inland	
N2.02	Proposed multipurpose trail on the east side of US 101 from Bald Hills Road along Prairie Creek to the north Redwood Creek levee	Inland	
N2.03	South levee to Redwood National Park Visitor Center	Coastal Commission	Coastal Act
N2.04	On the beach from the Redwood National Park Visitor Center to the south end of Freshwater Lagoon	Coastal Commission	Coastal Act/Federal Consistency Program
N3.02	Hiking trail along midslope contour of Gyon Bluffs above US 101 from south end of Freshwater Lagoon to Stone Lagoon access road	County	North Coast Area Plan of Humboldt County LCP
N3.03	From the Stone Lagoon access road, along beach west of Stone Lagoon. Continue around west side of lagoon to existing trail from the environmental camp to Dry Lagoon beach	Coastal Commission	Coastal Act
N3.04	On beach from Dry Lagoon access to south end of Big Lagoon	Coastal Commission and County	Coastal Act/North Coast Area Plan
N3.05	On beach from south end of Big Lagoon to Agate Beach to trails at the south end of Agate Beach and Rim Trail in Patrick's Point State Park	Coastal Commission and County	Coastal Act/Trinidad Area Plan
N4.01	Patrick's Point Drive near Park entrance to Stagecoach Rd. Continue on west Stagecoach to Trinidad State Beach Elks Head/College Cove parking lot at Trinidad State Beach	Coastal Commission	Coastal Act
N4.02	Hiking trail through Trinidad State Beach that connects to beach and Trinidad Harbor	City of Trinidad	City of Trinidad LCP
N4.07	Scenic Drive from Groth Lane south to US 101	City of Trinidad, County, Coastal Commission	City of Trinidad LCP/Trinidad Area Plan/Coastal Act

Segment	Segment Description	Coastal Zone Jurisdiction	Standard of Review
Central			
C1.02	End of Scenic Drive along bluff and down to Little River	County and Coastal Commission	McKinleyville Area Plan/Coastal Act
C1.03	Little River Crossing or seasonal temporary crossing	Coastal Commission	Coastal Act
C1.04	From US 101 weigh station access along State Parks' proposed trail near the south end of the Little River Bridge through Little River State Beach dunes to near access point at Crannell Drive interchange.	Coastal Commission	Coastal Act
C1.05	Dune trail in Little River State Beach, from access point near Crannell Drive interchange to State Parks' dune trail.	Coastal Commission and County	Coastal Act/McKinleyville Area Plan
C1.06	On Clam Beach Drive beginning at Little River State Beach parking area to the connection with Hammond Trail.	County	McKinleyville Area Plan
C1.09	Hammond Bridge	Coastal Commission	Coastal Act
C2.02	Mad River Road south from the Hammond Bridge to the intersection of the Upper Bay Road and Lanphere Road	County	Humboldt Bay Area Plan
C2.06	Lanphere Road to Seidel Rd, ending at Foster Ave.	County	Humboldt Bay Area Plan
C2.08	Foster Ave to Jackson Ranch Road	Coastal Commission	Coastal Act
C2.09	Foster Avenue from intersection with Seidel to Q street to 17th Street	County	Humboldt Bay Area Plan
C3.02	State Route 255 from Jackson Ranch Road over Mad River Slough Bridge to Young Lane	Coastal Commission	Coastal Act
C3.03	Multipurpose trail on rail corridor from Jackson Ranch Road over Mad River Slough Bridge to Young Lane	Coastal Commission	Coastal Act
C3.04	Proposed multipurpose trail through Manila along the west side of SR 255 right-of-way from Young Lane to the southern extent of Peninsula Drive.	County	Humboldt Bay Area Plan
C3.05	On State Route 255 from South Peninsula Drive to the Samoa Bridge approach	Coastal Commission and County	Coastal Act and Humboldt Bay Area Plan
C3.06	Samoa Bridge	Coastal Commission	Coastal Act
C4.01	On rail corridor from 17th Street and Alliance Road to South G Street near the Arcata Water Treatment Plant.	City of Arcata and Coastal Commission	City of Arcata LCP/Coastal Act
C5.01	Rail-Trail from Bracut to Y Street to T Street	Coastal Commission	Coastal Act
C5.03	T street to Front Street to Waterfront trail	Coastal Commission	Coastal Act
C5.06	Proposed boardwalk from J Street to G Street	Coastal Commission	Coastal Act
C5.09	Multipurpose trail in rail ROW along Waterfront Drive from C Street to Del Norte Street	Coastal Commission	Coastal Act

Segment	Segment Description	Coastal Zone Jurisdiction	Standard of Review
South			
S1.01	Eel River Drive from US 101 to Cannibal Island Rd	Coastal Commission	Coastal Act
S1.02	Multipurpose trail on rail corridor from the northern end of Tompkins Hill Road to Eel River Drive in Loleta	County	Eel River Area Plan
S1.06	Multipurpose trail on rail corridor from Loleta to Fernbridge	County	Eel River Area Plan
S1.07	Eel River Drive from Cannibal Island Rd to Fernbridge	County	Eel River Area Plan
S2.06	State Route 211/Main Street from the west side of Fernbridge to Mattole Road	Coastal Commission and County	Coastal Act/Eel River Area Plan
S3.01	Mattole Road from Ferndale to “Zanone D” coastal access point south of Cape Mendocino	County	South Coast Area Plan
S3.03	On beach from “Zanone D” coastal access point south of Cape Mendocino to “Zanone A” coastal access point at McNutt Gulch	County	South Coast Area Plan
S4.01	On beach from McNutt Gulch to the mouth of the Mattole River	County and Coastal Commission	South Coast Area Plan/Coastal Act

Glossary

AASHTO – American Association of State Highway Transportation Officials

AB – Assembly Bill

ABA – Architectural Barriers Act of 1968

Access – A legal means of entering or approaching a place.

Accessible route – In the ADA, a continuous route that is accessible to persons with disabilities.

ADA – Americans with Disabilities Act of 1990; broad legislation mandating provision of access to employment, services, and the built environment to those with disabilities.

ADAAG – American Disabilities Act Accessibility Guidelines

ADT – Number of Average Daily Trips

AGODA – Draft Final Accessibility Guidelines for Outdoor Developed Areas of 2009

AQMD – North Coast Unified Air Quality Management District

Bike path – A path segregated from motorized traffic for use by bikes, sometimes shared with pedestrians and other non-motorized trail users.

Built segment – A portion of the CCT primary route or coastal access/connector routes that has been constructed (also reference 'existing segment' for a portion of the CCT that has been constructed and officially designated as the CCT).

Bicycle facility – A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking facilities, maps, and all bikeways.

Bike alternative – Alternative CCT route for bicyclists designated where a segment of the primary CCT is incompatible to bicyclists.

Bikeway – Generic term for any of several classifications of bicycle transportation facilities; includes bike paths, bike lanes and bike routes.

BLM – Bureau of Land Management

BTA – Bicycle Transportation Account

Caltrans – California Department of Transportation

CAMUTCD – California Manual on Uniform Traffic Control Devices

CCC – California Conservation Corps

CCT – California Coastal Trail

CDB – Community Development Block Grants

CDFG – California Department of Fish and Game

CEQA – California Environmental Quality Act

CHIS – California Health Interview Survey

CMA – Cooperative Management Agreement

CNDDDB – California Natural Diversity Database

CNRS – College of Natural Resources and Sciences at Humboldt State University

Coastal access – CCT alignment that diverges from the main north-south alignment but which provides access to the coast from the main north-south CCT.

Conceptual trail – A broad or guiding general principal for the intent, design, and location of a trail. Conceptual trail alignments may not yet be feasible due to ownership constraints or sensitive resource issues (also see “Future preferred alignment.”)

Connector – CCT alignment that diverges from the main north-south alignment but which provides access from communities to the primary CCT alignment.

COOP – Humboldt Coastal Dunes Cooperative

Corridor – A strip of land forming a passageway between at least two destinations. Three corridor examples along the CCT route are: a railroad corridor that accommodates a rail line and a trail; a beach corridor that is wide enough for trail users to adjust their route according to tide levels; and a roadway corridor that provides facilities for vehicles, bicycles and pedestrians.

CSD – Community Services District

CSLC – California State Lands Commission

Developed trail – A trail for walking and hiking that has typically been constructed with a compacted natural surface.

DFG – Department of Fish and Game

DOT – Department of Transportation

EIR – Environmental Impact Report

ESHA – Environmentally Sensitive Habitat Area

Existing segment – Coastal Trail route segment constructed and designated as the official CCT.

FEMA – Federal Emergency management Agency

FHWA – Federal Highway Administration

FOAM – Friends of the Arcata Marsh

FOD – Friends of the Dunes

FRA – Federal Railroad Administration

FTE – Full Time Equivalent

Future preferred alignment – Conceptual alignment for the CCT that is currently not feasible but is recommended for future consideration as the primary CCT alignment.

FWS – Fish and Wildlife Service

GDRC – Green Diamond Resource Company

GIS – Geographic Information Systems

HCAOG – Humboldt County Association of Governments

HCRC – Humboldt County Resource Conservation District

HNCLT – Humboldt North Coast Land Trust

HSU-AS – Humboldt State University Associated Students

IGA – Intergovernmental Agreement

IMBA – International Mountain Biking Association

Improved trail – A trail for walking and hiking that has typically been constructed with a compacted natural surface.

ITE – Institute of Transportation Engineers

JMA – Joint Management Agreement

JPA – Joint Powers Agreement

KRNCA – King Range National Conservation Area

LCP – Local Coastal Program

LCT – Lost Coast Trail

LTF – Local Transportation Funds

MLT – McKinleyville Land Trust

MOU – Memoranda of Understanding

MRC – Mattole Restoration Council

Multipurpose trail (paved) – A paved multipurpose trail is designed to accommodate a number of different non-motorized user types, including pedestrians, bicyclists, in-line skaters and those with disabilities.

Multipurpose trail (unpaved) – An unpaved multipurpose trail is designed to accommodate a number of different non-motorized user groups including pedestrians, bicyclists, equestrians and those with disabilities.

MUTCD – Manual on Uniform Traffic Control Devices, a publication of the Federal Highway Administration that establishes a national standard for traffic control.

Natural surface trail – A trail surface that is typically composed of compacted native soil. Non-native material may be used to increase tread stabilization. Natural surface trails can accommodate hikers, equestrians and mountain bikers. Natural surface trails can also be designed to be ADA-compatible.

NBDP – National Bicycle and Pedestrian Documentation Project

NCRA – North Coast Rail Authority

Non-motorized transportation – To travel by means other than a motorized vehicle including by foot, bicycle or horse.

NPS – United States National Park Service

NRHP – National Register of Historic Places

NRS – Natural Resources Services Division of Redwood Community Action Agency

NWP – Northwestern Pacific Railroad

O&M – Operations and Maintenance

OTD – Offer to Dedicate

Paved trail – Paved surface, multi-use pathways, sidewalks, bicycle lanes, and bicycle routes that serve a variety of commuter trips, utilitarian trips, and recreational trips. Paved trails are proposed to meet the dimensional, geometric, and functional standards set forth by the California Department of Transportation (Caltrans), the American Association of State Highway Transportation Officials (AASHTO) and the California Manual on Uniform Traffic Control Devices (CAMUTCD).

Pavement markings – Painted or applied line(s) or legend placed on any travel surface for regulating, guiding, or warning traffic.

Planned segment – A portion of the CCT route that has been identified for future implementation and is detailed in a planning document.

Planning area – The north, central, or southern study area of the Humboldt CCT Implementation Plan.

Planning reach – A focus area more discreet than a planning area, defined by similar physiographic features or boundaries.

Primary trail – The main north-south route alignment of the Coastal Trail or most important or major route as defined by anticipated level of use by a wide variety of user types.

Proposed route – Route segment planned.

PUC – Public Utilities Commission

Railbanking – Railbanking is one mechanism for converting rail corridors that are not currently being used as active railroads to other purposes without actually “abandoning” the line. It is a procedure and series of agreements where the railroad puts the corridor into “savings” with a local government which “lends” it out and allows the public intermediate use of the corridor. Under the agreement it is understood that should the railroad want to use the corridor again for a railroad they can “withdraw” the corridor from the “bank.” The law providing for railbanking was upheld unanimously by the United States Supreme Court in 1990.

Rail trail – A trail within a railroad right-of-way, encompassing either rail-to-trail or rail-with-trail.

Rail-to-trail – The conversion of abandoned railroad rights-of-way to non-motorized trails. Such trails may be public or private; free or requiring a user fee.

Rail-with-trail – Trail adjacent to, or within, an active railroad corridor.

RCAA – Natural Resources Services Division of Redwood Community Action Agency

RFFI – Redwood Forest Foundation Inc.

RFP – Request for proposals

Right-of-way – An easement held by a public agency over land owned by the adjacent property owners that allows the agency to exercise control over the surface and above and below the ground of the right-of-way. Property owners are typically responsible for the construction of transportation improvements adjacent to their property. The agency maintains the street, while the property owner is responsible for maintaining the sidewalk.

RNP – Redwood National Park

RNSP – Redwood National and State Parks

ROW – See “Right-of-way.”

RRAS – Redwood Region Audubon Society

RTCA – Rivers, Trails and Conservation Assistance program

RTP – Regional Transportation Plan or Recreational Trails Program

RTPA – Regional Transportation Planning Agency

RWT – Rail with Trail

SAFETEA-LU – Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users

SCC – State of California Coastal Conservancy

Segment – A part or section of a trail.

Shared roadway – Route follows existing road corridor in which motorized and non-motorized have equal rights and responsibilities in the roadway.

Shy distance – A space along side or above a facility to any fixed object (trees, limbs, poles, signs, beams, walls, fences, guard rails or drop-off). Also referred to as horizontal or vertical clearance.

Sight distance – A measurement of the user's visibility, unobstructed by objects, along the normal travel path to the furthest point of a road or travel path's surface.

SR – State Route

STB – Surface Transportation Board

Stopping sight distance – The total distance traveled from the instant a vehicle operator sights an object to the time the vehicle comes to rest. Perception time plus reaction time and braking distances equal stopping sight distance.

Study area – Defined area addressed by the analysis in a plan or study.

TOT – Transient Occupancy Tax

Traffic calming / Traffic diet – This is a form of “traffic management” and involves actions to reduce and slow motor vehicle traffic, usually in residential neighborhoods. Techniques for traffic calming include preventing through traffic, installing traffic circles, narrowing the street, using a rougher road surface, planting street trees, or building speed bumps.

Universal design – A broad-spectrum design solution that produces environments that are usable and effective for everyone, not just people with disabilities. Universal design considers the needs of people of all abilities and ages, recognizing variation in agility, balance, cognition, coordination, endurance, flexibility, hearing, problem solving, strength, vision and walking speed.

USACE – US Army Corps of Engineers

USFWS – United States Fish and Wildlife Service

VMT – Vehicle Miles Traveled

Volunteer trail – A trail that is locally used but not planned or approved by a jurisdiction or property owner.

VTS – Volunteer Trail Steward

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