

City of Arcata Trust Lands Use Plan

INTRODUCTION

In 1989 the State of California granted tide and submerged lands to the City of Arcata to be held by the City in trust for the benefit of all the people of the state for purposes of commerce, navigation, and fisheries, and for other public trust purposes, including, but not limited to preservation of the lands in their natural state for scientific study, open space, wildlife habitat, and recreational and visitor oriented uses. The granted lands include portions of the Arcata Marsh and Wildlife Sanctuary and the City's integrated wastewater treatment system as well as tidelands in Humboldt Bay.

The legislation requires the City to submit to the State Lands Commission a Trust Lands Use Plan indicating details of intended development, preservation, or other use of the trust lands.

GENERAL DESCRIPTION OF USES PLANNED FOR THE TRUST LANDS

The City of Arcata's trust lands include both upland and underwater lands in the following use categories:

The Arcata Marsh and Wildlife Sanctuary and Integrated Wastewater Treatment Facility – City operations for the Arcata Marsh and Wildlife Sanctuary and integrated wastewater treatment system covers 306 acres. Of that 192.56 are subject to the 1989 legislation. The remainder includes 29.42 acres of upland and created wetlands (Gearheart Marsh, Allen Marsh and associated salt marsh). The remaining 81.82 acres have recently been acquired by the City to expand the Arcata Marsh and Wildlife Sanctuary to the west. The lands covered by the legislation include the following parcels:

Parcel Number	Acreage	Description
503241010	61.49	Klopp Lake, Hauser Marsh, & Mt. Trashmore
503241013	5.51	Butchers Slough portion & areas west of the Corporation Yard boundary
503211005	4.38	Pilot marshes south of Corporation Yard boundary
501043003	5.03	Salt Marsh east of Treatment marshes & oxidation ponds
503241001	26.51	Butchers Slough, Log Pond & Arcata Marsh Interpretive Center
503241016	4.53	Stormwater wetland, and areas just west of South G Street
503241005	0.22	Butchers Slough adjacent to South I Street
503241006	0.04	Butchers Slough adjacent to South I Street
50601104	14.71	Salt Marsh west of I Street

503241015	0.1	Butchers Slough – South G Street
No number	80.29	Oxidation Ponds, Treatment Marshes and Aquaculture facility

Tidelands in Humboldt Bay – This area is comprised of approximately 1285.9 acres. Of that 170.9 is managed as part of the Arcata Marsh and Wildlife Sanctuary and integrated wastewater treatment system. The southeast portion of the tidelands is under the jurisdiction of the U. S Fish and Wildlife Service as part of the Humboldt Bay National Wildlife Refuge.

Use Plan for the Arcata Marsh and Wildlife Sanctuary & Integrated Wastewater Treatment Facility

The Arcata Integrated Wastewater Treatment Facility and Marsh and Wildlife Sanctuary are located between South G and South I Streets in the City of Arcata. Arcata is situated on the north end of Humboldt Bay in Humboldt County. The integrated wastewater wetlands treatment system includes oxidation ponds, treatment marshes and pilot marshes, located adjacent to the City's corporation yard, and enhancement marshes located at the Arcata Marsh and Wildlife Sanctuary (AMWS). The enhancement marshes are created freshwater wetlands that are an integral part of the Arcata Marsh and Wildlife Sanctuary. These marshes, which are fed with treated wastewater, provide freshwater habitat and opportunities for public education, recreation and scientific study. Treated wastewater is also used for an aquaculture program run under a cooperative agreement with the City of Arcata and Humboldt State University.

City Integrated Wastewater Treatment Facility

The City's Environmental Services Department is responsible for operating Arcata's wastewater treatment facility. The wastewater treatment facility includes primary treatment infrastructure, two methane digesters, covered sludge drying beds, three oxidation ponds, three treatment marshes, ten pilot marsh cells that are used for research and education through a cooperative agreement with Humboldt State University, a chlorination/dechlorination facility, a wastewater aquaculture facility, and four buildings which house the generators, laboratory and offices necessary for operating the plant. All drainage from the corporation yard is treated at the wastewater treatment facility before being discharged into Humboldt Bay.

The portions of the integrated wastewater treatment facility located on trust lands include Arcata's oxidation ponds, pilot and treatment wetlands, and aquaculture facility. The wastewater aquaculture facility is located along the western perimeter of Arcata's oxidation ponds. The aquaculture facility uses a mix of disinfected wastewater and seawater to rear a variety of fish species. In the past coho and chinook salmon and steelhead were raised to enhance the local commercial and sport fishery as well as contribute to restoring runs in local creeks.

City Use Goals Include:

- 1) Operate and maintain the Integrated Wastewater Treatment Facility to meet state and federal discharge standards and regulations.**
- 2) Provide general operation and maintenance for the Integrated Wastewater Treatment Facility and the Aquaculture facility.** Maintenance and upkeep activities at the Integrated Wastewater Treatment Facility include maintaining existing aquaculture buildings, water conveyance structures and equipment, aerators in the oxidation ponds, electrical and other utility lines, and the dikes that separate the oxidation ponds, treatment wetlands and fish rearing ponds from each other and the Bay. When needed *hydrocotyle ranunculoides* and *typha latifolia* are removed from the oxidation ponds, the dikes are mowed annually and pilot and treatment marsh vegetation is burned or mechanically removed as needed.
- 3) Operate the wastewater aquaculture facility through a cooperative agreement with Humboldt State University (HSU).** HSU operates a small aquaculture facility adjacent to the oxidation ponds. The aquaculture facility uses a mix of disinfected wastewater and seawater to rear a variety of fish species.
- 4) Work with HSU to provide opportunities for research and education as it relates to wastewater treatment and reuse.** HSU students and faculty undertake a variety of research projects related to wastewater treatment and reuse at the integrated wastewater treatment facility. All research projects must be approved and permitted by the Director of Environmental Services.
- 5) Cooperate with the Wildlife Care Center to improve rescue and rehabilitation opportunities for injured or stranded wildlife.** The City has agreed to provide the Wildlife Care Center with space for a prerelease flight cage for birds and a small laboratory for animal assessment and care. The flight cage will be placed adjacent to the aquaculture facility. The laboratory will be located in the City corporation yard adjacent to trust lands.

Arcata Marsh and Wildlife Sanctuary

The Arcata Marsh and Wildlife Sanctuary's over 300 acres include freshwater wetlands, salt marsh and mudflats associated with Humboldt Bay, a brackish lake, Butcher slough and adjacent uplands. The City's wastewater is the freshwater source for three of the four freshwater marshes. The Sanctuary is a home or temporary refuge for over 250 species of birds. It provides breeding habitat for ducks and other waterfowl and is a feeding area for fish-eating birds such as osprey, herons, grebes, and egrets. It also provides refuge for a wide variety of birds that utilize the marsh during migration. The Arcata Marsh and Wildlife Sanctuary is open to the public for a variety of recreational uses including bird watching, walking, hiking, and boating. Its assets include 4.5 miles of trails, five diverse habitats for wildlife viewing, an interpretive center, a recreational lake for fishing, and a boat launch that is accessible during high tides. Weekly guided tours are offered free of charge by the Redwood Region Audubon Society and the Friends

of the Arcata Marsh (FOAM). Additional special events are offered year round by FOAM and the City.

City Use Goals Include:

- 1) Manage the Arcata Marsh and Wildlife Sanctuary to provide habitat for birds and other species.** Species that utilize the variety of habitats at the Sanctuary include shorebirds, waterfowl, wading birds, raptors, gulls and terns, song birds, otters, raccoon, fox, bobcats, voles and other rodents, a variety of reptiles and amphibians, fish and marine invertebrates.
- 2) Maintain the Sanctuary for both habitat protection and enhancement.** Maintenance includes: managing water depth and flow to improve water quality as it moves through the enhancement marshes; removing nonnative flora and fauna to protect native flora and fauna; revegetating with native vegetation to promote a diversity of upland habitats; removing woody growth from the center of Mt. Trashmore to protect the clay cap that seals the old landfill; removing aquatic vegetation from the marshes to maintain open water habitat; maintaining the integrity of the dikes that separate the marshes from each other; Butchers Slough, and Humboldt Bay; cleaning the sediment basin on Butchers Slough; and maintaining the integrity of islands in Klopp Lake and the ponds.
- 3) Retain existing freshwater, brackish, saltwater and upland habitats.** Allen, Gearheart and Hauser Marshes will continue to be managed to provide enhancement for Humboldt Bay by utilizing the City's wastewater to provide fresh water habitat and public recreation. Klopp Lake, the Log Pond, the created salt marsh that resulted when Butchers Slough was realigned, the area east of the corporation Yard where tidal action was restored (17 acres of salt marsh), and the small wetlands north of Klopp Lake (No Name Pond) will continue to be managed for wildlife habitat and public enjoyment. Uplands associated with these areas will also be managed for wildlife habitat as well as recreational and educational uses.
- 4) Enhance freshwater, brackish and saltwater marsh habitat and improve water quality.** Examples of improvements include; installation and operation of a pump to augment fresh water in the log pond during the dry season, mowing the railroad tack areas as an alternative to applying herbicides, and creation of a stormwater wetland to treat stormwater runoff from the South G Street area before it enters Butchers Slough. The City makes every attempt to use adaptive management if research or monitoring indicates the need to change management practices to enhance habitat values.
- 5) Maintain the Sanctuary for public use and enjoyment.** Maintenance includes: resurfacing existing trails as needed; routine mowing of trails; maintaining and repairing bird blinds, benches, signs, picnic tables and toilets; repairing the boat launch and dock, installing drinking water fountain at South I Street, and maintenance associated with the Marsh Interpretive Center.
- 6) Continue to increase public recreational opportunities.** Recreational opportunities for physically challenged individuals have been provided at the Arcata Marsh Interpretive Center

and a nearby 700 foot trail. A second trail is planned near Klopp Lake to provide fishing access for physically challenged individuals.

7) Continue to improve upland habitat. The City is improving upland habitat by removing nonnative vegetation and replacing it with native species to increase the area's value for wildlife and improve its visual quality.

8) Provide opportunities for education. The City's educational goal for the Sanctuary includes educating as broad a range of people as possible about Arcata's innovative wastewater treatment system, and providing accurate information on the multiple benefits of wetlands, including their significance for treating wastewater and wildlife habitat. The City works with FOAM to provide education to the community, area schools, and tourists. City staff and FOAM volunteers staff the Interpretive Center, provide public and special request tours, and develop interpretive displays, brochures, exhibits, and maps. FOAM is contracted with the City to provide these services free of charge for schools, special interest groups, and the public. The Interpretive Center is open 9-5 daily. The Arcata Marsh and Wildlife Sanctuary is open from dawn until one hour after sunset for recreation and research and education. Research conducted at the Sanctuary must be permitted by the Director of Environmental Services.

9) Expand educational opportunities. Possible future educational opportunities include: special topic lectures, slide shows, or tours; school use of the Sanctuary and the Interpretive Center as an extension of the classroom, training for teachers; and providing educators with existing educational materials (both AMWS specific and others) that can be used by schools to enhance their marsh visits.

FOAM volunteers and City staff continue to develop interior displays for the Arcata Marsh Interpretive Center. The exhibits depict the various elements of Arcata's integrated wastewater treatment system and link it to the water cycle, treatment requirements that result from human uses, the use of wetlands for wastewater treatment and reuse of wastewater to enhance wildlife habitat values, and our changing relationship with water resources around Humboldt Bay. Upgrading existing outdoor interpretive exhibits is also possible.

10) Provide opportunities for research as it relates to wildlife and human use of the Arcata Marsh and Wildlife Sanctuary. Research topics at the marsh vary widely and are undertaken by High school and university students as well as professors. All research projects must be approved and permitted by the Director of Environmental Services.

Use Plan for the Underwater Tidelands

The City leases 174.6 acres of tidelands to North Bay Shellfish for mariculture purposes.

1) Continue mariculture lease for use of tidal and submerged lands for commercial cultivation of oysters and clams consistent with state and federal regulations governing mariculture.

2) Retain the tidelands not currently leased for mariculture as natural habitat.

PROJECTED STATEWIDE BENEFIT

City activities on trust lands are consistent with the purposes set forth in Section 1 of the enabling legislation that states "lands to be held in trust for the benefit of all the people of the state for purposes of commerce, navigation, fisheries and for other public trust purposes including, but not limited to preservation of the lands in their natural state for scientific study, open space, wildlife habitat, and recreational and visitor-oriented uses".

Integrated Wastewater Treatment System and Arcata Marsh and Wildlife Sanctuary

Prior to the establishment of the Arcata Marsh and Wildlife Sanctuary, Arcata's waterfront consisted of an abandoned county landfill, abandoned and vandalized lumber mill buildings and the sewage treatment plant. Due to the blighted nature of the area, the City was growing away from its once historically important waterfront. The development of Arcata's integrated wastewater treatment system and the Arcata Marsh and Wildlife Sanctuary (AMWS) turned this blighted area into one of the most popular and well know parts of the City. Over 4.5 miles of publicly accessible trails wind past several different wetland habitat types located within the 306 acre Sanctuary. Annual visitor estimates to the AMWS exceed 130,000 people per year. The public use and habitat values provided by the Sanctuary are consistent with the trust uses listed above. Opportunities for research and education at the Sanctuary and the Interpretive Center are also consistent with public trust uses.

The City's management of the integrated wastewater treatment system to provide freshwater for wetland habitat, water for aquaculture, and opportunities for research and education are listed public trust purposes. The oxidation ponds and treatment marshes also provide habitat for wildlife and opportunities for research and education.

Tidelands

The lease of tidelands for mariculture furthers both the commerce and fisheries purposes of the public trust doctrine. The remaining tidelands are maintained in their natural state for scientific study, open space, wildlife habitat, recreation and visitor oriented uses.

METHOD OF FINANCING

Annual Operating Budget

Arcata's budget for maintenance of the Arcata Marsh and Wildlife Sanctuary is included in the wastewater treatment facility's budget. The actual operating costs for the Sanctuary are only a portion of the \$1,494,299 budgeted for 2000-01. Most of the funds are committed to operation and maintenance of the City's integrated wastewater treatment facility. These services are funded by wastewater service charges. The operation and debt service wastewater fund reserves covers capital improvements to the treatment facility. The Year 2000-01 Budget for these activities is attached.

Revenues

Wastewater Treatment Fund

Service fees charged to customers cover the operating and maintenance costs for the integrated wastewater treatment facility and the Arcata Marsh and Wildlife Sanctuary.

Arcata Marsh Interpretive Center

Fees for use of the Arcata Marsh Interpretive Center for non-marsh related events offset building maintenance costs.

Minimum fee up to 2 hours - \$55.00
Setup and preparation (max. 4 hours) - \$8 per hour
Every additional hour \$17.50
Youth Serving Agency - \$66.50/day
Senior Citizen Agency - FREE

Revenues from the sale of items at the Interpretive Center Bookstore help to offset building operating costs. The City budgeted \$8000 for bookstore purchases in fiscal year 2000-01. The gross profit for these purchases is roughly 50%.

Tidelands

Revenue from the lease is 2.5 % of the net annual profits. Revenues in 1998 were \$398.45 and \$377.00 in 1999.

Capital Improvement Costs

City wastewater fund revenues and grant funds are utilized for all the capital improvement projects undertaken at the integrated wastewater treatment facility and at the Arcata Marsh and Wildlife Sanctuary. No capital improvements have been undertaken in the tidelands.

TRUST LANDS USE PLAN IMPLEMENTATION SCHEDULE

Integrated Wastewater Treatment System and Arcata Marsh and Wildlife Sanctuary – 1989 to 2005

1. Operate and maintain the Integrated Wastewater Treatment Facility to meet state and federal discharge standards and regulations.
2. Provide general operation and maintenance for the Integrated Wastewater Treatment Facility and the Aquaculture facility.
3. Operate the wastewater aquaculture facility through a cooperative agreement with Humboldt State University (HSU).
4. Work with HSU to provide opportunities for research and education as it relates to wastewater treatment and reuse.
5. Cooperate with the Wildlife Care Center to improve rescue and rehabilitation opportunities for injured or stranded wildlife.
6. Manage the Arcata Marsh and Wildlife Sanctuary to provide habitat for birds and other species.
7. Maintain the Sanctuary for both habitat protection and enhancement.
8. Retain existing freshwater, brackish, saltwater and upland habitats.

Enhance freshwater, brackish and saltwater marsh habitat and improve water quality.

Maintain the Sanctuary for public use and enjoyment.

9. Continue to increase public recreational opportunities.
10. Continue to improve upland habitat.
11. Provide opportunities for education.
12. Expand educational opportunities

13. Provide opportunities for research as it relates to wildlife and human use of the Arcata Marsh and Wildlife Sanctuary.

Tidelands – 1989-2005

1. Continue mariculture lease for use of approximately 174.6 acres of tidal and submerged lands for conducting commercial cultivation of oysters and clams until April 18, 2005.
2. Retain the remaining tideland as natural habitat.
3. Renegotiate a new lease agreement in 2005 consistent with state and federal regulations governing mariculture.

HOW THE TRUSTEE WILL PROTECT AND PRESERVE THE TRUST LANDS AND RESOURCES

The Arcata Marsh and Wildlife Sanctuary trust lands and the tidelands are managed by the Natural Resources Division of Arcata's Environmental Services Department. The Natural Resources Division of the Environmental Services Department is responsible for operating and maintaining all of the City's natural areas. The Friends of Arcata Marsh assists the City with staffing the Arcata Marsh Interpretive Center and by providing tours of the Sanctuary and integrated wastewater treatment facility. The wastewater treatment facility is operated by the Water/Wastewater Division, of the Environmental Services Department.

The Arcata Marsh and Wildlife Sanctuary, the oxidation ponds and the treatment marshes are zoned "Natural Resources Protection". To protect and manage the Sanctuary for its intended purposes, the City has established regulations that govern public use of the Sanctuary. These regulations are attached. The proposed plans for the trust lands are consistent with the Open Space and Conservation Element of the City of Arcata's General Plan 2020 Update and the Coastal Land Use and Development Guide.

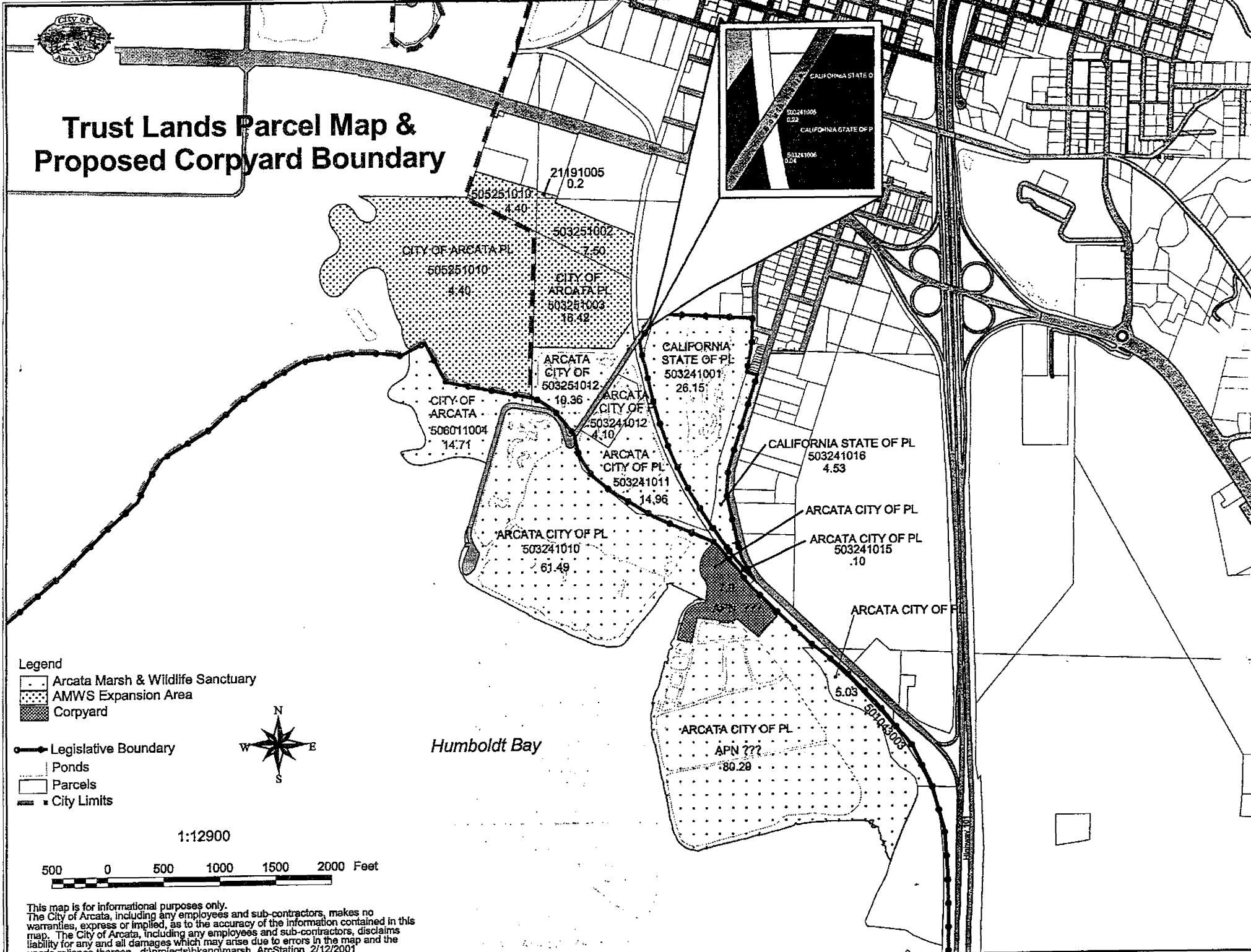
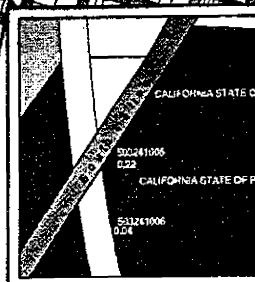
ATTACHMENTS

1. Location Maps for Arcata Marsh and Wildlife Sanctuary, Wastewater Treatment Facility and City Tidelands
2. Agreement with Friends of the Arcata Marsh
3. City of Arcata 2000-01 Wastewater Treatment Budget
4. Regulations for Use of the Arcata Marsh and Wildlife Sanctuary

5. Excerpt from Open Space and Conservation Element
6. Arcata Marsh and Wildlife Sanctuary Brochures



Trust Lands Parcel Map & Proposed Corpyard Boundary



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Trust Lands Location Map

Mariculture
Lease
82.8 AC

Mariculture
Lease
91.8 AC

Humboldt Bay

AMWS
Expansion
Area

AMWS

AMWS

AMWS

AMWS


AMWS
Salt Marsh


Integrated
WWTP

Legend

Arcata Marsh & Wildlife Sanctuary
and Integrated WWTP

AMWS Expansion Area

 Mariculture Leases

 Legislative Boundary

1:15000

500 0 500 1000 1500 Feet

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Arcata

AMWS
Expansion
Area

Gearheart Pond

Butcher
Slough

Log
Pond

Stormwater Wetland

Salt Marsh

Allen Pond

Hauser Pond

AMIC

Salt Marsh

Mt. Trashmore

No
Name
Pond

Boat Launch

Klopp Lake

Aquaculture

Treatment Wetlands

Humboldt Bay

Salt Marsh

Oxidation

Ponds

Arcata Marsh & Wildlife Sancturay and Integrated WWT Facility

- Legislative Boundary
- AMWS Trails
- AMWS Expansion Area
- Arcata Marsh & Wildlife Sanctuary

500 0 500 1000 Feet

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ArcStation

AGREEMENT BETWEEN CITY OF ARCATA
AND FRIENDS OF THE ARCATA MARSH

AGREEMENT made on August 1, 1996 between the City of Arcata, a municipal corporation, (referred to as "CITY"), and Friends of the Arcata Marsh, a non-profit corporation (referred to as "FOAM"). This Agreement supercedes the Agreement made on May 3, 1995 between CITY and FOAM.

I. SERVICES AND CONDITIONS

CITY agrees to engage FOAM and FOAM agrees to perform services under the terms and conditions set forth in this AGREEMENT.

A. SERVICES

1. On behalf of the CITY, FOAM will develop and conduct educational programs at the Arcata Marsh Interpretive Center on:

- a) Wetland systems for treating wastewater
- b) Wetland construction and restoration
- c) Wastewater, aquaculture, and other beneficial uses of recycled water
- d) History and politics of Arcata's wastewater system.
- e) Recruiting and training volunteer docents to provide information on the above programs

2. These educational services must include:

- a. Guided group walks at the wastewater facilities and Arcata Marsh and Wildlife Sanctuary. FOAM will provide tours every Saturday afternoon, except for holidays, and at other times as requested by the public as long as tours are requested two weeks in advance
- b. Providing a referral system for inquiries to original proponents of the wastewater treatment facility
- c. Development of displays in cooperation with the City.

3. Other special programs may include:

- a. Lectures, presentations, workshops and special events

B. CONDITIONS

FOAM must provide CITY with a log of all volunteers that provide services as specified under Section I.A. The log will include: The name, date and hours that the volunteers provided service. The log will be provided to CITY monthly.

FOAM will provide all educational services free-of-charge, except for programs under Section I.A.3.

CITY will schedule FOAM use and all other uses of the all-purpose room on a first-come, first-serve basis. No charges will be levied by CITY from FOAM for the use of facility for services and programs as specified under Section A. of this contract and for FOAM organizational meetings.

FOAM will maintain a log, to be provided monthly to CITY, of all interpretive programs and tours including dates and number of persons.

FOAM will provide CITY with schedule of all FOAM programs and events to be held at the Center prior to such programs taking place.

CITY will provide FOAM a desk, file cabinet and phone hook-up for computer/fax in the Marsh Interpretative Center office.

CITY will provide all cleaning, maintenance, and facilities repair at the Marsh Interpretive Center.

CITY has the right to contract with other agencies for educational services other than those included in items numbered a) through d) of Section I.A.1. of this contract.

CITY will provide FOAM with regulations regarding number and location of tours to protect the carrying capacity of the facilities.

FOAM will establish rules and training for guides leading FOAM educational services or tours. CITY will be provided a copy of the rules and training materials and an updated list of volunteers and guides.

FOAM will provide the CITY with a copy of all educational materials developed by FOAM or on FOAM's behalf.

FOAM will follow CITY provided policies and procedures.

II. RELATIONSHIP OF PARTIES

The parties intend that FOAM, in performing services herein specified, shall act as an independent contractor and shall have control of its work and the manner in which it is performed. FOAM is not to be considered an agent or employee of CITY, and is not entitled to participate in any pension plans, worker's compensation insurance, or similar benefits that CITY provides for its employees.

III. INDEMNITY

FOAM agrees to protect, defend, indemnify and hold CITY, its officers, employees and agents free and harmless from and against any and all losses of every kind of character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings, or causes of action of every kind and character in connection with or arising directly or indirectly out of this AGREEMENT and/or the performance hereof. FOAM further agrees to investigate, handle, respond to, provide defense for and defend any such claims, etc., at their sole expense and agrees to bear all other costs and expenses related hereto.

Likewise, CITY agrees to protect, defend, indemnify and hold FOAM, its officers, employees, and agents free and harmless from and against any and all losses of every kind of character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings, or causes of action of every kind and character in connection with or arising directly or indirectly out of this AGREEMENT and/or the performance hereof. CITY further agrees to investigate, handle, respond to, provide defense for and defend any such claims, etc., at their sole expense and agrees to bear all other costs and expenses related hereto.

IV. ATTORNEY FEES

If any such action shall be brought to enforce this agreement, or for or on account of any breach of, or to enforce or interpret any of the covenants, terms or conditions of this agreement, or for the recovery of the property, the prevailing party shall be entitled to recover from the other party as part of the prevailing party's costs reasonable attorney's fees.

V. CONTRACT TERMS TO BE EXCLUSIVE

This written AGREEMENT contains the sole and entire AGREEMENT between the parties. The parties acknowledge and agree that neither of them has made any representation with respect to the subject matter of this AGREEMENT or any representations inducing the execution and delivery hereof except such representations as are specifically set forth herein; and each party acknowledges that it is relied on its own judgment in entering into the AGREEMENT. The parties further acknowledge that any statements or representations that may have heretofore been made by either of them to the other are void and of no effect and that neither of them has relied thereon in connection with its dealings with the other.

VI. NONDISCRIMINATION

This agreement is made and accepted upon and subject to the following conditions: Namely, that there shall be no discrimination against or segregation of any person or group of persons, on account of race, color, creed, national origin, ancestry, sex, marital status, handicaps, age or religion in the operation, maintenance, use, occupancy, or enjoyment of the Marsh Interpretive Center and the wastewater treatment facility.

VII. WAIVER OR MODIFICATION INEFFECTIVE UNLESS IN WRITING

No waiver or modification of this AGREEMENT or of any covenant, condition, or limitation herein contained shall be valid unless in writing and duly executed by the City Council of the CITY and the Board of FOAM. Furthermore, no evidence of any waiver or modification shall be offered or received in evidence in any proceeding, arbitration, or litigation between the parties arising out of or affecting this AGREEMENT, or the rights or obligations of any party hereunder, unless such waiver or modification is in writing, duly executed as aforesaid. The provisions of this paragraph may not be waived except as herein set forth.

VIII. CONTRACT GOVERNED BY LAW OF STATE OF CALIFORNIA

This AGREEMENT and performance hereunder and all suits and special proceedings hereunder shall be construed in accordance with the laws of the State of California. In any action, special proceeding or other proceeding that may be brought arising out of, in connection with, or by reason of this AGREEMENT, the laws of the State of California shall be applicable and shall govern to the exclusion of the law of any other forum, without regard to the jurisdiction in which the action or special proceeding may be instituted.

IX. TERMINATION

This AGREEMENT may be terminated by either party upon four months written notice. CITY and FOAM agree that, should notice of termination be given by either party, both parties will meet to address cause of desired termination and present recommendations and a course of action to prevent such termination.

X. CONTRACT IS NON-TRANSFERABLE

Neither party shall assign, sublet, or transfer its obligation under this AGREEMENT without the written consent of the other.

XI. NOTICES

All notices, demands or other writings in this agreement provided to be given or made or sent, or which may be given or made or sent, by either party hereto to the other, shall be deemed to have

been fully given or made or sent when made in writing and deposited in the U.S. mail registered and postage prepaid, and addressed as follows:

to CITY City of Arcata
736 "F" Street
Arcata, CA 95521

to FOAM Friends of the Arcata Marsh
P. O. Box 410
Arcata, CA 95521

Executed at Arcata, California on July 29, 1996.

CITY OF ARCATA

By: Alice Harris

Title: City Manager

FRIENDS OF THE ARCATA MARSH

By: Jack Taylor 23 July '96

Title: Board Chair

WASTEWATER TREATMENT DESCRIPTION**(Environmental Services)****DESCRIPTION:**

This activity is responsible for the monitoring, reporting, testing and treatment of all wastewater for the City of Arcata.

This activity provides comprehensive maintenance and repairs for all of the equipment, motors, and pumps involved with the wastewater treatment plant and related processes. It also provides comprehensive maintenance, and repairs for eleven (11) wastewater pump stations. This activity is responsible for operation, maintenance, and repairs on 55-acres of oxidation ponds and 154-acres of treatment and enhancement marshes.

The California State Water Resource Control Board and the United States Environmental Protection Agency require the following programs:

1. Water quality testing including, but not limited to: Chlorine, coliform, biochemical oxygen demand, digester solids, pH, heavy metals, oil and grease, settleable solids, sulfur dioxide, suspended solids and toxicity. These tests can occur on a daily, weekly, monthly, quarterly, semi-annual and annual basis.
2. Comprehensive monitoring, permitting, reporting and disposal of the City's wastewater solids composition program.
3. Comprehensive monitoring, permitting, reporting and disposal of the City's wastewater solids composition program.
4. Comprehensive hydrocleaning and videotaping program for the maintenance of 60-miles of wastewater collection system.
5. Comprehensive monitoring and repairing program for the maintenance of 154-acres of the Arcata Marsh and Wildlife Sanctuary (AMWS).

PROGRAM CHANGES:

None

ACCOMPLISHMENTS:

1. Replaced 13 year old failing waste digester gas burner and related equipment.
2. Installed new State mandated chlorine and sulfur dioxide gas emergency shut off control equipment.
3. Completed installation of the new wastewater lift station at Meadowbrook Apartments.
4. Completed installation of State mandated radio tower and remote telemetry equipment for chlorine leak emergency communication system.
5. Replaced 13 year old failing main wastewater influent flow meter.
6. Replaced 20 year old failing main wastewater bypass pump.
7. Replaced 15 year old failing wastewater flow meter at the First Street main station.
8. Installed new State mandated grease removal system on the primary clarification unit.
9. Cleaned and videotaped approximately 26-miles of wastewater collection system.
10. Replaced 15 year old deteriorating wooden bridge over Butcher Slough at the AMWS.

GOALS:

1. Complete South G Street remediation site State closure requirements.
2. Complete repairs on Klopp Lake islands at AMWS.
3. Clean and videotape 30-miles of wastewater collection system.
4. Replace deteriorated boat dock at AMWS.
5. Increase Arcata Marsh Interpretive Center sales 25%.
6. Complete 8th and F Street remediation site State closure requirements.

BUDGET OVERVIEW

APPROPRIATIONS	Actual 1997-98	Actual 1998-99	Estimated 1999-00	Budget 2000-01
Personnel	362,160	392,454	452,561	466,043
Materials and Services	456,208	559,428	577,760	608,195
Debt Service/Lease Payments	119,298	117,071	130,224	132,061
Capital Outlay	645,261	216,845	214,900	288,000
Grant Programs	-0-	-0-	-0-	-0-
Gross Budget	1,582,927	1,285,798	1,375,445	1,494,299
Charges to Other Departments	-0-	-0-	-0-	-0-
Net Budget	1,582,927	1,285,798	1,375,445	1,494,299

FUNDING SOURCES (see descriptions in Revenue Section)

OPERATING:				
Wastewater Fund (662)	872,184	1,006,268	1,030,321	1,074,238
DEBT SERVICE:				
Wastewater Fund (662)	65,482	62,685	130,224	132,061
PROJECTS/CAPITAL OUTLAY:				
Wastewater Fund (662)	145,261	216,845	214,900	288,000
1997 Revenue Bonds (662)	500,000	-0-	-0-	-0-
	1,582,927	1,285,798	1,375,445	1,494,299

WASTEWATER TREATMENT**Activity #****67****PERSONNEL**

Account Number	DESCRIPTION	2000/01		
		Department Proposed	Manager Proposed	Council Approved
662-67-010.00	REGULAR SALARIES	326,253	324,507	324,507
662-67-020.00	OVERTIME SALARIES	16,000	16,000	16,000
662-67-030.00	PART-TIME AND TEMPORARY SALARIES	26,000	20,800	20,800
662-67-090.00	SUPPLEMENTAL COMPENSATION	102,135	104,736	104,736
TOTALS		\$470,388	\$466,043	\$466,043

POSITION TITLES

Director of Environmental Services	0.35	0.35	0.35
Deputy Director of ES	0.05	0.05	0.05
Water/Wastewater Superintendent	0.50	0.50	0.50
Water/Wastewater Plant Operator II	2.50	2.50	2.50
Water Quality Technician	0.75	0.75	0.75
Water/Wastewater Maint Worker	0.50	0.50	0.50
Wastewater Maintenance Worker	2.00	2.00	2.00
Resource Specialist	0.65	0.65	0.65
E. S. Maintenance Worker	0.40	0.40	0.40
Instrumentation Technician	0.50	0.50	0.50
Interpretive Naturalist	1.00	1.00	1.00
Secretary	0.40	0.40	0.40
Total Full-time Equivalents	9.60	9.60	9.60

MATERIALS AND SERVICES

Account Number	DESCRIPTION	2000/01		
		Department Proposed	Manager Proposed	Council Approved
662-67-110.00	UTILITIES	85,000	65,000	65,000
662-67-120.00	COMMUNICATIONS	10,000	10,000	10,000
662-67-140.00	TRAINING, CONFERENCES AND MEETINGS	3,000	3,000	3,000
662-67-150.00	CLOTHING AND PERSONAL EXPENSE	4,000	4,000	4,000
662-67-160.00	MEMBERSHIPS AND DUES	1,300	1,300	1,300
	PROFESSIONAL AND SPECIALIZED SERVICES			
662-67-170.01.0	Grease Disposal	2,500	2,500	2,500
662-67-170.20.0	EPA Risk Management Program	5,000	5,000	5,000
662-67-170.28.0	Lab Certification	1,500		
662-67-170.29.0	State and EPA Requirements	2,000	2,000	2,000
662-67-170.30.0	Pretreatment Program	2,000	2,000	2,000
662-67-170.35.1	Brush Chipping (Wastewater Fund portion)	10,250	10,250	10,250
662-67-170.37.0	NPDES Outfall #1	2,500	2,500	2,500
662-67-170.37.1	NPDES Outfall #2	2,500	2,500	2,500
662-67-170.39.0	Humboldt State University MOU	83,000	83,000	83,000
662-67-170.41.0	Local Limitations Analysis	1,500	1,500	1,500
662-67-170.42.0	Fire Extinguisher Maintenance	500	500	500
662-67-170.43.0	Annual Flowmeter, Transducer, Lab Equipment Calibration	3,000	3,000	3,000
662-67-170.46.0	Garbage Can Service	5,000	5,000	5,000
662-67-170.49.0	California Conservation Corps	4,000	4,000	4,000
662-67-170.72.0	AMIC Alarm Monitoring	500	500	500
662-67-170.73.0	Oxidation Pond Brush Removal	2,000	2,000	2,000
662-67-170.92.0	Bioassay Testing	1,500	1,500	1,500
662-67-170.93.0	Digester Solids Analysis	2,500	2,500	2,500
662-67-170.94.0	Annual Standby Generators Service/Test	2,500	2,500	2,500
662-67-170.95.0	AMWS/Ponds Brush Removal	2,500	2,500	2,500
662-67-170.96.0	Hoist Certification	350	350	350
662-67-170.97.0	Annual Chlorine/Sulfur Dioxide Equipment Service/Test	4,500	4,500	4,500
662-67-170.98.0	Digester Compost Analysis	2,500	2,500	2,500
662-67-170.99.0	Confined Space/Hoist Certification	1,000	1,000	1,000

MATERIALS AND SERVICES

Account Number	DESCRIPTION	2000/01		
		Department Proposed	Manager Proposed	Council Approved
	TAXES AND FEES			
662-67-190.01.0	Regional Water Quality Control Board Mandatory Bay Protection Program	11,000	11,000	11,000
662-67-190.02.0	Regional Water Quality Control Board Annual Permit (Stormwater)	500	500	500
662-67-190.04.0	Regional Water Quality Control Board Annual Discharge Fee	10,500	10,500	10,500
662-67-190.05.0	Humboldt County Division of Public Health, Sludge Compost Facility Fee	1,500	1,500	1,500
662-67-200.00	INSURANCE	13,875	13,875	13,875
662-67-210.00.0	Friends of Arcata Marsh	1,150	1,150	1,150
	POSTAGE			
662-67-310.01.0	Utility Billing	4,900	6,000	6,000
662-67-310.02.0	Pretreatment	50	50	50
662-67-310.03.0	Miscellaneous	50	50	50
662-67-320.00.0	PHOTOCOPY	500	500	500
662-67-330.00	OFFICE SUPPLIES	1,250	1,250	1,250
662-67-350.00	CHEMICALS AND LAB SUPPLIES	85,000	85,000	85,000
662-67-360.00	JANITORIAL AND HOUSEHOLD SUPPLIES	700	700	700
	OTHER DEPARTMENTAL SUPPLIES			
662-67-420.00.0	Miscellaneous	7,500	7,500	7,500
662-67-420.01.0	Marsh Supplies	3,500	3,500	3,500
662-67-420.03.0	Safety Supplies	2,000	2,000	2,000
662-67-420.04.0	Sign Materials	1,500	1,500	1,500
662-67-420.05.0	Arcata Marsh Interpretative Center Inventory	5,000	5,000	5,000
662-67-420.07.0	Computer Supplies	1,500	1,500	1,500
662-67-430.00	SMALL TOOLS	1,000	1,000	1,000
662-67-470.00	FUELS AND LUBRICANTS	3,000	3,000	3,000

MATERIALS AND SERVICES

Account Number	DESCRIPTION	2000/01		
		Department Proposed	Manager Proposed	Council Approved
662-67-530.00	EQUIPMENT MAINTENANCE	18,000	18,000	18,000
662-67-540.00	BUILDING AND GROUNDS MAINTENANCE	5,000	5,000	5,000
662-67-540.01.0	Oxidation Ponds Maintenance	3,500	3,500	3,500
662-67-540.02.0	Arcata Marsh & Wildlife Maintenance	3,000	3,000	3,000
662-67-540.03.0	Aqua-Culture Facility Maintenance	3,500	3,500	3,500
662-67-550.00	EQUIPMENT MAINTENANCE/ REPLACEMENT - Pool Vehicles	48,110	59,000	59,630
662-67-560.00	EQUIPMENT RENTAL OUTSIDE FIRMS	3,000	3,000	3,000
662-67-599.00	OVERHEAD	115,580	128,820	128,590
TOTALS		\$604,065	\$607,795	\$608,195

DEBT SERVICE / LEASE PAYMENTS

Account Number	DESCRIPTION	2000/01		
		Department Proposed	Manager Proposed	Council Approved
	RETIREMENT OF PRINCIPAL			
662-67-610.01.0	REFA II	71,400	71,400	71,400
662-67-610.02.0	1997 Revenue Bond	11,700	11,700	11,700
	INTEREST EXPENSE			
662-67-620.01.0	REFA II	20,100	20,100	20,100
662-67-620.02.0	1997 Revenue Bond	27,061	27,061	27,061
	FISCAL AGENT FEES			
662-67-630.01.0	REFA II	1,000	1,000	1,000
662-67-630.02.0	1997 Revenue Bond	800	800	800
TOTALS		<u>\$132,061</u>	<u>\$132,061</u>	<u>\$132,061</u>
			REFA II (51%)	1997 Bonds (18%)
Principal due June 30, 2000			239,700	499,500
Principal to be paid 2000/01			71,400	11,700
Principal due June 30, 2001			168,300	487,800
Remaining interest payments			through 2003 20,234	through 2022 361,950

CAPITAL OUTLAY

Account Number	DESCRIPTION	2000/01		
		Department Proposed	Manager Proposed	Council Approved
	BUILDING AND STRUCTURES			
662-67-730-var	Buildings and Structures			
662-67-730.35.0	Arcata Marsh & Wildlife Sanctuary - Replace Boat Dock	15,000	15,000	15,000
662-67-730.38.0	Aldergrove Lift Station - Replace with above ground unit	60,000	60,000	60,000
662-67-730.39.0	Control Building Extension	7,500	7,500	7,500
662-67-730.40.0	Oxidation Pond Dike Repairs	10,000	10,000	10,000
	OTHER IMPROVEMENTS			
662-67-760.01.0	Chips for Trail Maintenance (Arcata Marsh & Wildlife Sanctuary)	4,500	4,500	4,500
662-67-760.03.0	8th & F St. Remediation Site Installation of two monitoring wells to complete site closure	10,000	10,000	10,000
662-67-760.08.0	South G Street Remediation Site Monitoring Wells and Testing	12,000	12,000	12,000
662-67-760.11.0	Aquaculture Project Ponds Repair	5,000	5,000	5,000
	FURNITURE AND EQUIPMENT			
662-67-780-var	Furniture and Equipment			
662-67-780.26.0	Effluent Pump Station Retrofit/Repair Pumps and Motors	5,000	5,000	5,000
662-67-780.43.0	Chlorine Analyzers - Parts and Chemicals	5,000	5,000	5,000
662-67-780.49.0	Aldergrove Lift Station, Bayside Lift Station #2, 1st Street Lift Station, Samoa Lift Station	10,000	10,000	10,000
662-67-780.50.0	Bayside Lift Station #1, Bayside Gables Lift Station, 300 Bayside Lift Station, L. K. Wood Lift Station, Mad River Rapids Lift Station	5,000	5,000	5,000

CAPITAL OUTLAY

Account Number	DESCRIPTION	2000/01		
		Department Proposed	Manager Proposed	Council Approved
662-67-780.51.0	Pond/Marsh Pump Station	5,000	5,000	5,000
662-67-780.52.0	Wastewater Treatment Plant Headworks	15,000	15,000	15,000
662-67-780.53.0	Wastewater Treatment Plant Clarifiers	5,000	5,000	5,000
662-67-780.54.0	Wastewater Treatment Plant Digesters and Gas Conditions Building	2,000	2,000	2,000
662-67-780.55.0	Wastewater Treatment Plant Emergency Generator and Heat Exchanger Buildings	2,000	2,000	2,000
662-67-780.56.0	Wastewater Treatment Plant Chlorination and Sulfur Dioxide Buildings	5,000	5,000	5,000
662-67-780.57.0	Wetland Pump Station	3,000	3,000	3,000
662-67-780.58.0	Rodder Hydro hoses, rods, adapters, fittings, tools	8,500	8,500	3,500
662-67-780.77.0	OSHA Required Emergency Escape Equipment	2,000	2,000	2,000
662-67-780.78.0	75 KW Emergency Generator (Portable)	50,000	50,000	50,000
662-67-780.79.0	Replace 20 year old Failing Emergency Generator at Alder Grove	35,000	35,000	35,000
662-67-780.80.0	Replace 15 year old composter at AMIC	1,500	1,500	1,500
662-67-780.81.0	Replace Wetland Effluent Flow Meter	5,000	5,000	5,000
TOTALS		\$288,000	\$288,000	\$288,000

TITLE X - PUBLIC PROPERTY

CHAPTER 3 - REGULATIONS FOR USE OF THE ARCATA
MARSH AND WILDLIFE SANCTUARY (Ord. No. 1088)

SEC. 10600. Access generally. (Ord. No. 1193)

Access to all marshes will be restricted from public use unless specifically authorized by the Director of Environmental Services or his designee.

SEC. 10605. Motorized vehicles.

Motorized vehicles will be restricted to the I Street extension and parking lots. Parking will be allowed only in designated parking lots.

SEC. 10610. Hunting.

No hunting will be allowed within 100 yards of the land and open water adjacent to the Arcata Marsh and Wildlife Sanctuary and the Arcata Oxidation Pond.

SEC. 10615. Leash law.

The Arcata leash law for animals will be strictly enforced at the site.

SEC. 10620. Access. (Ord. No. 1193)

Access to the outer dikes of George Allen and Robert Gearheart Marshes will be prohibited from public use unless specifically authorized by the Director of Environmental Services or his designee.

SEC. 10625. Air space.

The air space above the Marsh will be restricted to the heights established by the Federal Aviation Authority. Restrictions include the use of hang gliders, kites, model airplanes, and hot air balloons.

SEC. 10630. Horses.

Horses will be restricted to the use of the I Street and the parking lot areas.

SEC. 10635. Camping

The entire site will be closed from one hour after sunset to 4:00 a.m., unless specifically authorized by the Director of Environmental Services or his designee. No overnight camping is allowed.

SEC. 10640. Model boats.

All motorized model boats will be restricted to the westerly one-quarter of Franklin R. Klopp Recreational Lake.

SEC. 10645. Boats generally.

No boats will be allowed in any water body of the Sanctuary except for Humboldt Bay and Butcher's Slough unless specifically authorized by the Director of Environmental Services or his designee.

SEC. 10650. Fishing.

Fishing is prohibited in the Sanctuary with the exception of the south side of Klopp Lake and Humboldt Bay. Fishing is restricted to the use of artificial flies and lures in accordance with Article 7, Section 13.39 of the California Sport Fishing Regulations. A valid California Sport Fishing License is required in all areas.

SEC. 10655. Trees. (Ord. No. 1193)

Trees and shrubs to be planted must be on the approved list and in the areas designated for planting by the Wetlands and Creeks Advisory Committee.

CJN

ORDINANCE NO. 1281

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ARCATA
AMENDING THE ARCATA MUNICIPAL CODE, TITLE X-PUBLIC PROPERTY;
CHAPTER 3-REGULATIONS FOR USE OF THE ARCATA MARSH AND WILDLIFE SANCTUARY

The City Council of the City of Arcata does ordain as follows:

Section 1: The Arcata Municipal Code, Title X-Public Property, Chapter 3-Regulations for Use of the Arcata Marsh and Wildlife Sanctuary, is hereby amended by the addition of the following:

SEC. 10656. Release of Animals.

A. The City Council finds that the presence of non-native Animals in the Arcata Marsh and Wildlife Sanctuary disrupts the native ecology of that environment. The presence of non-native species is due in part to their release by people.

B. It shall be unlawful to release or cause the release of any animal into the Arcata Marsh and Wildlife Sanctuary, except when specifically authorized by the Director of Environmental Services.

C. It shall be unlawful to release or cause the release of any animal into any area adjoining or in such proximity of the Arcata Marsh and Wildlife Sanctuary such that said animal could reasonably be expected to migrate into the Arcata Marsh and Wildlife Sanctuary.

D. The Director of Environmental Services, or his/her designee, is authorized to impound and remove all non-native animals found in the Arcata Marsh and Wildlife Sanctuary. The Director, or his/her designee, shall deliver the impounded animals to the Sequoia Humane Society for processing in accordance with the internal procedures of the Humane Society.

Section 2: This ordinance will take effect thirty (30) days after the date of its adoption.

Dated: April 1, 1998

ATTEST:

APPROVED:



City Clerk, City of Arcata



Mayor, City of Arcata

Clerk's Certificate


I hereby certify that the foregoing is a true and correct copy of Ordinance No. 1281, passed and adopted at a regular meeting of the City Council of the City of Arcata, Humboldt County, California, on April 1, 1998, by the following vote:

AYES: Hanan, Kirkpatrick, Ornelas, Stewart, Test.

NOES: None

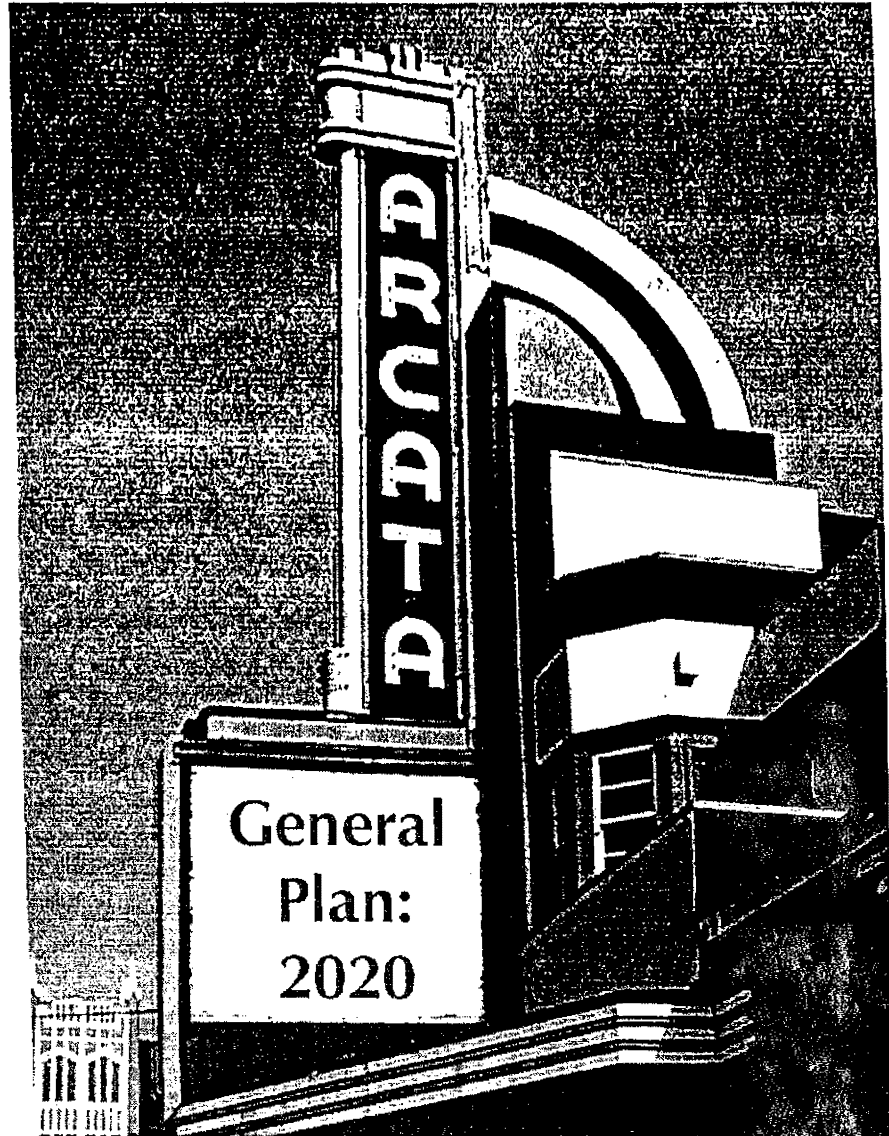
ABSENT: None

ABSTENTIONS: None



City Clerk, City of Arcata

Arcata General Plan: 2020 and Local Coastal Land Use Plan



October, 2000

City of Arcata, California
736 F Street
Arcata, CA 95521

Chapter 4

Environmental Quality and Management

**Open Space Element
Resource Conservation and Management Element
Air Quality Element**



OPEN SPACE ELEMENT

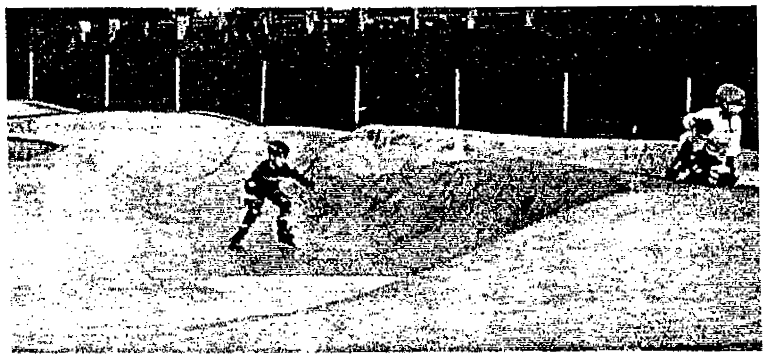
4.1 INTRODUCTION

Overview of Arcata's Open Space Resources. Arcata's open spaces take many forms and serve a variety of functions. Open space areas represent a significant and desirable component of the community's character and maintain natural, recreational, and visual resources for future community use and enjoyment. Open space is valuable for both passive and active uses. Designating or otherwise protecting lands as open space provides for: protection of natural habitats and species; managed production of natural resources such as agricultural and forest products; recreational uses; coastal access; scenic, aesthetic resources; and avoidance of development on such areas as steep slopes, faults, and flood zones that are potentially hazardous to the community. Open space is also valuable for preserving scenic views and other aesthetic considerations. The overall system is also enhanced when open space lands are linked by natural biological corridors, greenways, easements, and other types of connections. Open space categories are described in more detail below, and mapped on Figure OS-a located in the map pocket at the end of this chapter.

Open Space for the maintenance and enhancement of natural resources protects plant and animal habitat, especially in areas where rare, endangered, or threatened species exist. Arcata's creek watersheds and watercourses, McDaniel, Cannon, Butcher and Mad River sloughs, Arcata and Aldergrove Marshes, wetlands, baylands and tidelands, and ecological and scientific study areas, may also be included in this category.

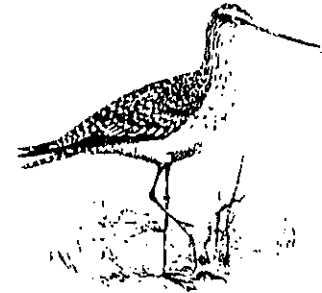
Open space for the managed production of resources includes forest lands on the west slopes of Fickle Hill, agricultural lands in the Arcata Bottom and Bayside areas, aquaculture areas in Arcata Bay, and the aggregate deposits along the Mad River. These areas are important for their production of food, wood, and mineral products, as well as for maintaining water quality and other ecological functions.

Open space for outdoor recreation includes City parks and ballfields, such as Redwood Park and the Community Center; cultural and special use areas such as the Arcata Ball field, Skate park, and Plaza; neighborhood parks such as Sunny Brae and Stewart Parks; and natural areas such as the Arcata Marsh and Shay Park.



Open space for public health and safety includes earthquake fault zones, liquefaction areas, steeply sloped hillsides, and 100-year floodplains.

In many cases, open space can provide multiple benefits. Agricultural lands in the Arcata Bottom and forested lands on the western slopes of Fickle Hill are important for their natural and resource production capabilities. These lands also retain natural drainage systems, sustain natural habitats, enhance the community's viewshed and provide an aesthetic resource. Designating these and other open spaces in the General Plan documents their value to the community. It also allows City decision-makers to identify open space as an important resource when considering proposed changes in community form.



Within the city and surrounding Planning Area, natural resource lands that are part of the open space system include: ocean beach; sand dunes; back-dune woodlands; Arcata Bay; Mad River; Mad River Slough; and buffer strips along the Mad River, and Jacoby, Jolly Giant, Janes, Sunset, Grotzman, Beith, and Campbell Creeks.

The Open Space Element is closely linked with the Resource Conservation and Management, Public Safety, and Parks and Recreation Elements of the General Plan. These linked elements contain policies for the protection, management, enjoyment, and access to and appropriate use of identified open space areas. The Open Space Element identifies natural and productive resource areas, parks, coastal access, outdoor recreation, and hazard areas that should be considered for their open space values.

Guiding Principles and Goals.

- A. Protect open space lands with native biotic resources as a natural legacy for future generations.
- B. Protect and manage public trust lands to sustain plant and animal species and ecosystem health.
- C. Recognize that the value of natural resources lands of all sizes and shapes are significantly enhanced when linked together in an open space system.
- D. Designate as open space, resource lands capable of producing agricultural, forest, mineral, and aquaculture products; and manage those lands for sustained production as well as habitat, hydrological, mineral, recreational, and aesthetic values.
- E. Preserve sufficient lands, for both active and passive recreational activities, and coastal access to serve the present and future needs of the community.

General Plan Parks and Recreation Element Goals:

- To provide a wide spectrum of recreational opportunities for Arcata residents of all ages.
- To provide all residents with a wide assortment of parks and related facilities.
- To promote sharing of facilities and programs with other entities.
- To emphasize fiscal efficiency in the provision of parks and recreation programs.
- To provide aesthetically pleasing parks and recreational facilities which are compatible with their environment.
- To bring park and recreation facilities into compliance with changing federal and state laws, and encourage user safety.

- F. Protect lands that, due to instability or seismic risks, pose potential risk to human health and well-being.
- G. Provide additional entryways to the Community Forest to promote greater accessibility from Arcata's adjacent neighborhoods.

4.2 POLICIES

The Open Space Element includes the following policies:

- OS-1 Overall Open Space System
- OS-2 Natural resource Protection and Enhancement
- OS-3 Open Space for Managed Production of Resources
- OS-4 Open Space for Outdoor Recreation/Coastal Access
- OS-5 Open Space in Health and Safety Hazard Areas

POLICY OS-1 OVERALL OPEN SPACE SYSTEM

Objective. Designate, maintain, and enhance the quality, and increase the amount of permanently protected open space in the Arcata Planning Area, including: natural resource areas; resource production areas; outdoor recreation areas; and areas subject to health and safety hazards. These areas are to be protected, linked together in a network wherever practical for accessibility, managed for resource production, and maintained for enjoyment by City residents and visitors.

- OS-1a **Designation of open space lands with native biotic resources and ecosystems.** The native biotic resources of the forested western slopes of Fickle Hill, river and creek riparian zones, the Arcata and Aldergrove Marshes, and Arcata Bay tidelands and sloughs are unique ecosystems that have important habitat values in addition to their other open space values. These areas as designated on Map OS-a shall be protected as open space for their resource values.



- OS-1b **Open Space Plan Map.** The areas designated as open space are shown on Figure OS-a. Generally, these lands are designated as A-E, NR, or PF on the land use map. Other lands, where identified open space resources have been preserved through easements or other means, are also subject to this element's policies.



- OS-1c Relationship to Resource Conservation and Management and Public Safety Elements.** This element identifies hazard areas that shall be maintained as open space for the benefit of the community. The policies of this element and policies found in the Public Safety Element provide common direction for the designation and avoidance of hazard areas. The natural open space features of these areas, such as vegetation, shall be retained, except where they contribute to instability or increase hazards.
- OS-1d Linkages between open space areas.** Linkage of open space lands, especially along biological corridors and greenways, is important for animal migration, non-motorized vehicle transportation, and community recreation, and shall be encouraged. Trails along levees or adjacent to railroad tracks and street rights-of-way can serve as links to parks, open space, and natural areas. Easements shall also be considered as a lower cost alternative to preserving links between open space.
- OS-1e Appropriate uses and development limitations within open space lands.** Certain open space areas contain wetlands and other critical habitat, and must be preserved in a natural condition and enhanced. Other areas can accommodate managed activities such as mining and timber harvesting, subject to sustainable yield policies RC-6 and RC-8 in the Resource Conservation & Management Element, while other areas shall be designated for interpretive and recreational use. Each designated open space area of the City shall be evaluated by the appropriate City advisory board (e.g., Creeks & Wetlands Committee) to determine the resources present, the acceptable level of use, and appropriate preservation. The management of, and development in, open space areas are subject to applicable policies of the Resource Conservation and Management and Land Use Elements.
- OS-1f Designation of lands with scenic, aesthetic, historic, and cultural value.** The City has scenic routes, including State Route 101 and Samoa Boulevard; vistas, including the forested slopes of Fickle Hill and the Arcata Bottoms; and areas of historic and cultural value, such as the Plaza. The open and natural characteristics of these areas shall be maintained. Policies for retaining scenic vistas and landscape features are included in the Community Design Element of the General Plan.
- OS-1g Public and private ownership and management of open space.** Open space resource areas are owned and managed by the City, state agencies, land trusts, corporations, and private individuals. The City shall set the standard for responsible resource land stewardship through its management of the Community Forest,



marshes, parks, and other resource lands, and encourage other public and private entities, entrusted with the ownership and management of similar resource areas, to consider natural resource values to the community in all long term use decisions.

- OS-1h **Greenbelts.** Preserving greenbelts of agricultural and other open space lands is an effective method of defining urban development limits. The City shall encourage the County to preserve agricultural designations in the City's Planning Area. The City also supports greenbelt preservation through land and conservation easement acquisition.

These measures will help preserve visual and associative links to nature, and reinforce the distinction between the City and adjacent communities.

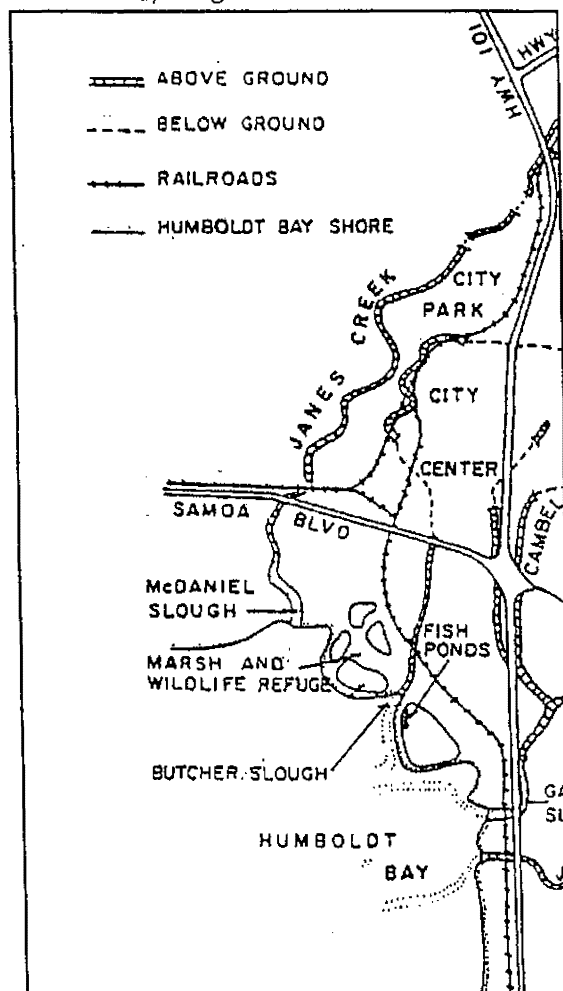
- OS-1i **Acquisition of open space areas.** There are several privately held land parcels, including forested property on the west slopes of Fickle Hill, which would contribute significantly to the City's open space system. The City shall pursue acquisition of these parcels, from willing sellers, for their open space values. Joint funding for land acquisition will be coordinated with County, regional and state agencies.

POLICY OS-2 NATURAL RESOURCES PROTECTION AND ENHANCEMENT

Objective. Designate, maintain, and enhance natural resource areas, including sensitive habitat areas, necessary to sustain plant and animal life and native biological diversity.

- OS-2a **Open space plan map designations for natural resource protection.** Publicly held lands containing creeks, wetlands, other open water, marsh, sensitive habitat, forests, and other important natural resources are designated on the Open Space Map.

- OS-2b **Development limitations and management for maintenance of biotic resources and diversity, including aquatic resources and sensitive habitats.** Creeks, marshes, and wetlands are significant components of Arcata's natural open space system. The City shall restore and maintain this system for the benefit of residents, visitors, fish, and wildlife.



The Arcata Bay and tidelands represent an important natural edge and open space feature of the City. Buildings, landform alterations, or access routes in this area shall be of a design and scale that preserves open space and natural characteristics and maintains public views to the Bay.


Local creeks which flow openly through the developed portion of the community shall have biological corridors and greenways established, and shall be maintained as visual assets to any developments which adjoin them.

The natural features of the Mad River corridor, Arcata's creeks and adjacent areas, marshes, and other wetland areas, shall be retained.

Unique vegetation and wildlife areas shall remain in a natural condition. Such areas include sand dunes and backdune woodlands, eel grass area, salt marshes, and special habitats (tern and osprey nesting areas, cormorant rookery, harbor seal area and egret roost). The policies of this element shall also call for protection for habitat of species that become threatened in the future.

POLICY OS-3 OPEN SPACE FOR MANAGED PRODUCTION OF RESOURCES

Objective. Designate and conserve resource areas, including forest and agricultural lands, fisheries and aquaculture, groundwater, and mineral resources, for their sustainable, long-term productive capabilities

OS-3a  **Designations for forest, agriculture, fisheries, aquaculture, groundwater, and mineral resource uses and management.** All publicly held lands, and some privately held lands adjacent to the Community Forest and east of Aldergrove Industrial Park, actively managed for production of forest, fisheries, aquaculture and mineral resources are designated as Natural Resource [NR] on the General Plan Land Use Element map. Productive agricultural lands are designated on the Open Space Map.

OS-3b **Development limitations and management for productive resource areas.** The policies of the Resource Conservation and Management Element shall be followed for the development and management of productive resource lands. This

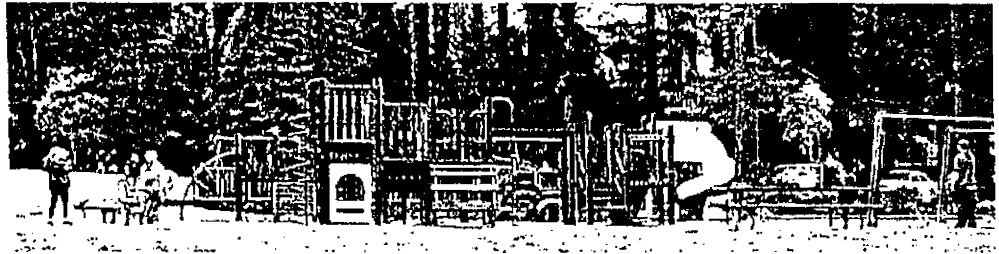


includes policies for: Natural Biological Diversity; Streams Management; Wetlands Management; Baylands and Tidelands; Agricultural and Forest Resources; and Water, Energy, Soils and Mineral Resources. The City shall require that management of open space resources be consistent with these and other applicable General Plan policies.

POLICY OS-4 OPEN SPACE FOR OUTDOOR RECREATION AND COASTAL ACCESS

Objective. Designate and secure public access to a sufficient supply of land and water areas with recreation resource value, including parks, forests, coastal areas, baylands, and stream corridors, to meet the outdoor recreation needs of Arcata residents and visitors.

- OS-4a **Designations for park lands and outdoor recreation areas.** All publicly held park lands and outdoor recreation areas are designated as Public Facility [PF] on the General Plan Land Use Element map. The natural resources present on these lands



are also subject to the applicable policies of the Resource Conservation & Management Element. Recreation areas are mapped on Figure OS-a.

- 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:

1. Access from Samoa Boulevard to Arcata Bay via South "I" and "G" Streets.
2. Access to Mad River Beach via Mad River Road.
3. Access to Manila Dunes via Samoa Boulevard.

- OS-4c **Relationship to the Parks and Recreation Element.** This element contains policies for management of open space lands designated for outdoor recreation. The Parks and Recreation Element contains goals and policy direction for: providing a range of recreation opportunities; sharing facilities; park and recreation program efficiency; environmental compatibility; and user safety.

POLICY OS-5 OPEN SPACE IN HEALTH AND SAFETY HAZARD AREAS

Objective. Designate health and safety hazard areas such as seismic fault and liquefaction zones, unstable soils or slopes, floodplains, areas susceptible to wildland fire, and watershed/reservoir safety zones. Provide appropriate protections, or restrictions, to

minimize unnecessary exposure of people and property to health and safety hazards.

- OS-5a Designation of open space for public safety.** Designated open space for public safety is shown on Figure OS-a. Setbacks for seismic faults and liquefaction zones, unstable soils or steep slopes, mapped Flood Hazard Zone A, areas susceptible to wildland fire, and watershed/reservoir safety zones, shall be established as part of the development review process. Where severe safety considerations exist (e.g., within the Alquist-Priolo Zone), open space easements shall be granted to the City to protect people and property from health and safety hazards.

Open space areas, with slopes 15% or greater shall retain their natural landform features; excavation shall be restricted, according to the City's adopted grading ordinance, and removal of vegetation shall be limited to selected thinning of timber stands and removal of hazard trees.



Open Space areas that are flood-prone may be used for agricultural and recreational purposes but shall be kept free from urban development. A flood plain overlay zone shall be applied to all Natural Resource [NR] and Agricultural [AE] areas subject to inundation according to the Flood Insurance Rate Map (Flood Hazard Boundary Map) developed by the Federal Emergency Management Agency (FEMA) or the Federal Insurance Administration.

- OS-5b Development limitations and management for health and safety hazard areas.** The policies of the Public Safety Element shall be followed for all development activity in areas with known or suspected safety hazards. In particular, seismic hazards, other geologic hazards, and flood hazards policy topics are applicable.



4.3 IMPLEMENTATION MEASURES

#	IMPLEMENTATION MEASURES	RESPONSIBLE PARTY	TIME FRAME
OS-1	<p>Open Space Preservation</p> <p>Preserve existing and acquire additional open space lands identified in this element through the following measures:</p> <ul style="list-style-type: none"> • Purchase of open space lands in fee. • Secure easements by negotiated agreement. • Maintain open space designations on City and County planning maps. <p>An appointed Open Space Advisory Committee will be responsible for implementing the Open Space Element and making relevant recommendations to City Council, including possible funding through bond measure approval. The advisory body is to participate in the next County General Plan update and promote incorporation of the City's open space goals, policies, and implementation measures in the County community plans covering the Arcata Planning Area.</p>	Community Development Dept./ Planning Commission	Year 1

RESOURCE CONSERVATION & MANAGEMENT ELEMENT

4.4 INTRODUCTION

Overview of Arcata's Natural Resources. Collectively, Arcata's natural resources constitute a significant component of the community. The forested hillsides, including the community forest, the Arcata Bottom, baylands, tidelands, creeks and wetlands are features of the natural ecosystem, which is as much a part of the community as homes, businesses, and schools. Goals and policies for conserving, enhancing, and managing the City's natural systems and features are critical ingredients of the General Plan.

Arcatans have demonstrated that natural resource conservation and management are civic responsibilities, which can be met by emphasizing resource enhancement rather than resource depletion. By taking an ecosystem management approach, the City can evaluate natural resource interrelationships, and plan to maintain regional biodiversity when making resource conservation and management decisions.

Biodiversity - "The variety of organisms considered at all levels, from genetic variants belonging to the same species through arrays of species to arrays of genera, families, and still higher taxonomic levels; includes the variety of ecosystems, which comprise both the communities of organisms within particular habitats, and the physical conditions under which they live."

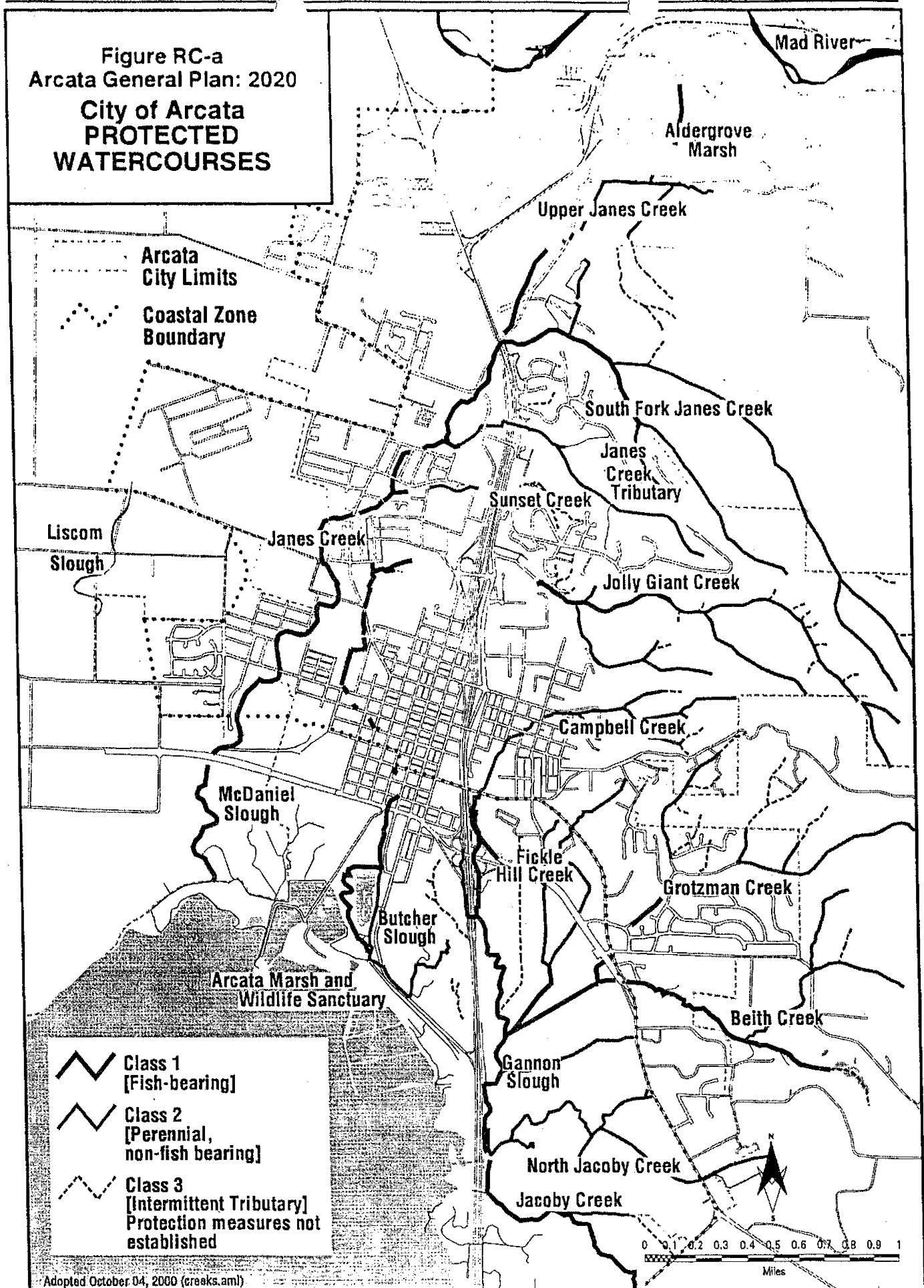
Edward O. Wilson
The Diversity of Life, 1992

Overview of Arcata's watercourses, wetlands, baylands and tidelands. Arcata's nine named creeks and associated sloughs provide: flood control, freshwater habitat, riparian habitat, scenic enjoyment, water quality, educational opportunities, public safety, fish and wildlife habitat (e.g., fish spawning and migration, wildlife nesting and foraging areas), open space, recreation, marine habitat, and groundwater recharge. These creeks also have tributaries with similar feature and functions. Arcata's creeks and sloughs, including areas with tidal action, are illustrated in Figure RC-a, on the following page.



The City has an adopted a Creeks Management Plan (CMP) which contains policies for: creek zone and flood hazard management; erosion and sedimentation, vegetation and wildlife; water quality; recreation; and public awareness. The CMP was adopted to address land uses that have significantly altered Arcata's creeks from their original condition.

**Figure RC-a
Arcata General Plan: 2020
City of Arcata
PROTECTED
WATERCOURSES**



These alterations have resulted from the present use of stream courses as storm drains, and past land use practices which produced large amounts of sediment, contributing to creek degradation. Alterations also included structures such as tidegates, which prevent or severely limit access for anadromous fish to all but Jacoby and Jolly Giant creeks. Except for Jacoby Creek, the riparian forests have been completely removed from at least half of each stream channel. Pollutants from a variety of sources (including petroleum products from urban run-off and suspended sediments from soil erosion) degrade the appearance and the biological integrity of the creeks.

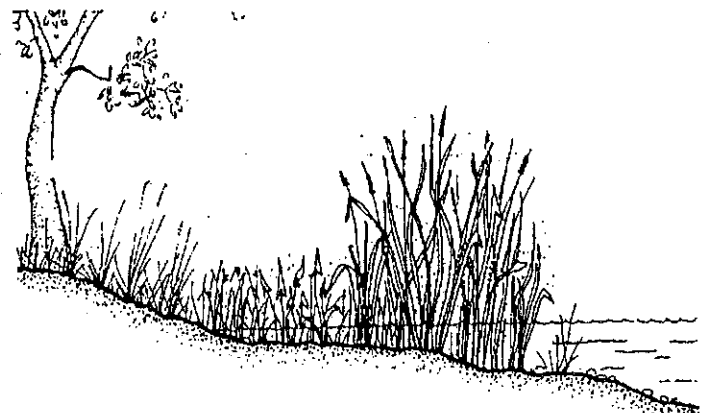
The Resource Conservation and Management Element contains overall goals and policies for creek management, which are supported by CMP policies and implementation measures. The CMP provides policy direction for new and modified development along creeks, and for existing activities in creek zones, in order to fully realize the creek's beneficial uses.

The westernmost reach of the Mad River forms the northern boundary of Arcata's Planning Area. The river originates at the northern edge of the Yolla-Bolly wilderness area, in Trinity County, approximately 100 miles southeast of its outlet to the Pacific Ocean. Its associated riparian corridor forms the northern portion of the City's perimeter greenbelt and a natural buffer between Arcata and the community of McKinleyville, to the north.

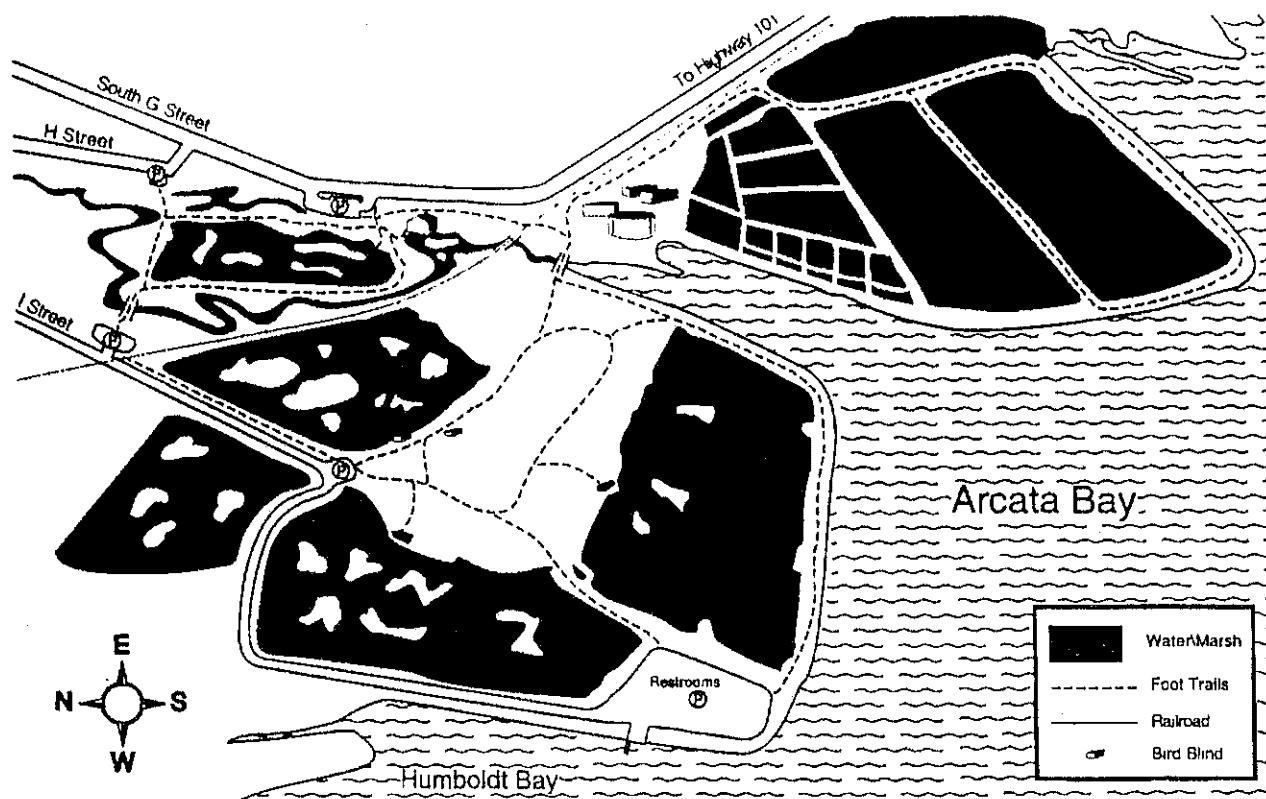
Wetlands provide flood protection, groundwater recharge, water quality treatment, food production and wildlife habitat, which are valued by the community.

Wetlands are highly productive, complex ecosystems, seasonally or permanently saturated, and support specially adapted vegetation. Wetlands are often found in transitional zones, or ecotones, between uplands and open water habitats. Arcata's marshes may be among the best examples of

local wetlands. The Aldergrove marsh was a log pond that has now been reconstructed and significantly enhanced as a ten acre freshwater marsh, as part of the Aldergrove Industrial Park development. A plan view of the 170 acre Arcata Marsh and Wildlife Sanctuary is shown on the following page.



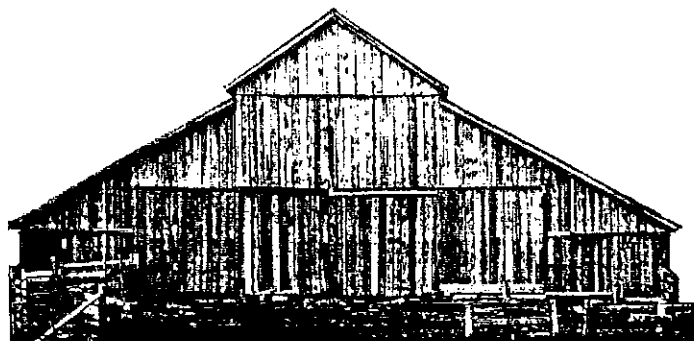
Arcata Bay is part of Humboldt Bay, which is fourteen miles in length, from north to south; covers more than 17,000 acres; and is the second largest coastal estuary in California. A significant portion of the northerly waters of Arcata Bay are owned by the City, are within its City limit, and represent a significant natural, visual, aquacultural, and recreational resource for the community. The tidelands adjacent to the Bay include salt marshes and sloughs, excepted where diked/reclaimed and used as pastureland.



Overview of agricultural resources. Agricultural lands represent an important natural resource within the City. Arcata's agricultural lands are currently used primarily for flowers, silage and hay production, food production, and livestock grazing. The Ferndale, Russ, and Loleta series are Arcata's most productive agricultural soils.

The agricultural lands in and around Arcata produce crops of raspberries, strawberries, lilies, daffodils, potatoes, corn, artichokes, hay (forage for cattle), and a number of other shallow rooted crops. There is community support for the continuation of dairy, beef, vegetable, fodder, and flower production in the City and the Planning Area, and recognition that protection of agricultural values, as well as open space and recreational values, is important.

Arcata's agricultural lands include farmed wetlands. Most of the farmed wetland areas around Humboldt Bay are former tidelands, once owned by the State, which private parties acquired from the State under the Swamp and Overflowed Lands Act. These lands were diked/reclaimed around the turn of the century.



These areas are below ten feet in elevation, have relatively impermeable soils, and retain run-off for long periods of time. While the State conveyed the fee title interest in these former tidelands, they are still subject to an easement under the Public Trust Doctrine, for the benefit and enjoyment of the people of this state. Much of this Public Trust land bordering Arcata bay can provide important wildlife habitat and recreational opportunities.

These farmed wetlands are no longer salt and brackish wetlands, but now function as freshwater wetlands, with meandering year-round creek and slough channels. Arcata's diked former tideland areas typically include the less productive types of Loleta and Bayside soils and are generally used for pasture.

Soil classifications are based on the most recent surveys. In the event that an updated soil survey is completed in the future, the classifications and associated mapping shall be changed accordingly.

Overview of forest resources. The eastern portion of Arcata is located on forested slopes of Fickle Hill Ridge. The slopes contain mostly second growth conifer stands. These forested lands are both publicly and privately held. The City of Arcata owns two separate tracts of forest land that comprise approximately 1,125 acres. Together, the publicly owned Arcata Community and Jacoby Creek Forests constitute a significant ecological, recreational, economic and educational resource for the citizens of Arcata and the surrounding region.

The City adopted the *1994 Arcata Community Forest & Jacoby Creek Forest Management Plan* to provide guidance for integrated multi-resource management activities and to establish standards and guidelines for the Arcata Community Forest and Jacoby Creek Forest. The Resource Conservation and Management Elements contain overall goals and policies for forest management. The Forest Management Plan includes goals, policies, detailed management direction, monitoring and evaluation techniques for the City-owned forests. The forest management plan goals are listed below.

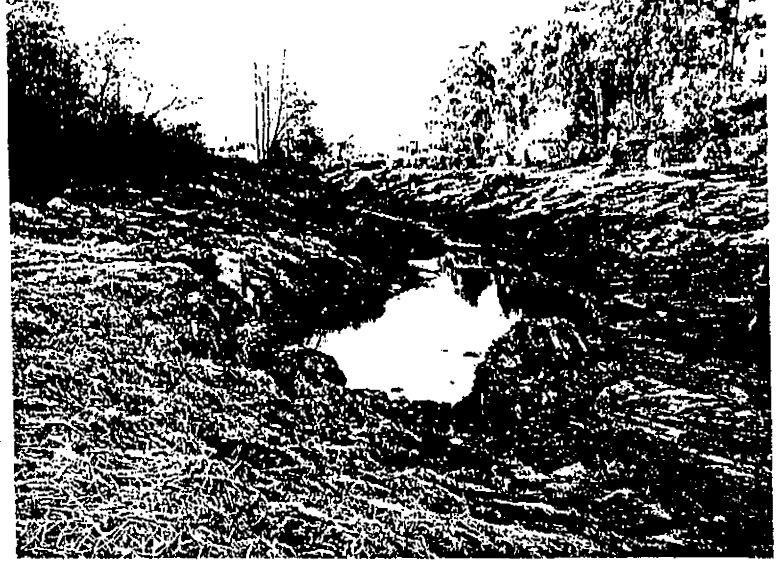


THE 1994 ARCATA COMMUNITY FOREST & JACOBY CREEK FOREST MANAGEMENT PLAN GOALS ARE TO :

- Maintain the health of the forest system, specifically, maintain the integrity of the watershed, wildlife, fisheries and plant resources, their relationships, and the process through which they interact with their environment.
- Produce marketable forest products and income to the City in perpetuity, balancing timber harvest and growth.
- The Community Forest shall also be managed to provide forest recreational opportunities for the Community.
- The City's forests shall serve as models of managed redwood forests for demonstration and educational purposes.

Guiding Principles and Goals.

- A. Protect, maintain and enhance natural ecosystem processes and functions in the region, in order to maintain their natural ecological diversity.
- B. Restore and maintain the physical and biological integrity of Arcata's streams.
- C. To protect, restore, enhance, and maintain riparian habitat on those lands subject to wetlands and streamside protection zone.
- D. Recognize and protect wetlands as highly productive complex ecosystems that provide vital habitat and cleansing systems.
- E. Restore and maintain the physical and biological integrity of publicly owned former tidelands (farmed wetlands) subject to the Public Trust easement, to a diversity of tidal, freshwater, and riparian habitats.
- F. Protect and enhance prime agricultural lands for their food production, resource, and aesthetic values.
- G. Manage a sustainable production of forest products on both public and private timberlands.
- H. Manage water resources at the watershed level, to maintain high ground and surface water quality.
- I. Manage surface and groundwater resources to provide water quality and quantity adequate to support natural ecosystem processes and functions.
- J. Conserve soil resources as the foundation of resource production, and minimize erosion and other soil depleting processes.
- K. Promote energy conservation, and development and use of alternative, non-polluting, renewable energy sources for community power in both the public and private sectors.
- L. Maintain an active relationship with adjacent communities and government agencies to encourage cooperative management of natural resources and ecosystems in Arcata's Planning Area.
- M. Conserve natural resources through reduced materials consumption and recycling (see integrated waste management policies in the Public Facilities & Infrastructure Element).
- N. Establish an Agricultural Advisory Committee to help maintain a compatible relationship between agricultural and non-agricultural activities and uses.



4.5 POLICIES

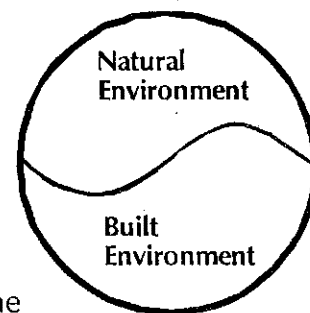
The following policies are included in the Resource Conservation and Management Element:

- RC-1 Natural Biological Diversity/Ecosystem Function
- RC-2 Streams Conservation & Management
- RC-3 Wetlands Management
- RC-4 Open Waters of Arcata Bay and Tidelands
- RC-5 Agricultural Resources Management
- RC-6 Forest Resources Management
- RC-7 Water resources Management
- RC-8 Energy Resources Management
- RC-9 Soils and Mineral Resources

POLICY RC-1 NATURAL BIOLOGICAL DIVERSITY/ ECOSYSTEM FUNCTION

Objective. Set an overarching policy that emphasizes the overall value of biological diversity and the fact that all natural resources are optimized when they function as part of a healthy ecosystem.

- RC-1a **Maintain Biological and ecological integrity.** Maintaining ecological balance, system function, biological integrity, and natural diversity is the primary focus of the Resource Conservation and Management Element. Protecting ecological functions of natural habitats, and natural drainage and infiltration processes, will enhance natural ecosystems in the Planning Area. Ecological system functions elements and processes are maintained through the following measures:



1. The structure and composition of ecological systems within the City shall contain the same native plant and animal species, in the same relative abundances and proportions, which are found in the least-disturbed natural ecosystems in the Planning Area.
2. The ecological functions performed by ecological systems in the City shall resemble the functions of the least-disturbed natural ecosystems in the Planning Area.
3. Ecological systems and natural processes are not disrupted by exotic organisms to a significant degree.
4. Ecological systems and natural processes are not to be disrupted by land use activities to a significant degree (e.g., a culvert or other drainage device that blocks fish passage).

An "adaptive management" approach shall be utilized to maintain ecological and biological integrity, including monitoring the status of ecological systems in the City and adjusting City implementation of this Plan, in order to more closely approximate the conditions provided in the Planning Area's least-disturbed natural ecosystems.

- RC-1b Non-native plant and animal species.** Some non-native species, such as pampas grass (*Cortaderia jubata*), Himalaya berry (*Rubus discolor*), Scotch broom (*Cytisus scoparius*), blue gum eucalyptus (*Eucalyptus globulus*), English ivy (*Hedera helix*), English holly (*Ilex aquifolium*), and cotoneaster (*Cotoneaster franchetii*), are invasive exotics that can and do displace native species. The presence of these non-native species reduces the area's natural diversity, biological integrity and aesthetics. Only native species, or species demonstrated to be non-invasive, shall be used in public landscapes and are to be strongly encouraged in private landscapes. The City shall provide public information that explains why invasive species are a problem. The City shall also maintain a program that recommends effective but non-toxic eradication measures, and eradicates non-native species on public lands where they are displacing native species.


- RC-1c Habitat value protection.** Environmentally sensitive habitat areas (ESHA) shall be protected against any significant disruption of their habitat values, and only uses dependent on and compatible with maintaining those resources shall be allowed within ESHAs. Proposed development in areas adjacent to ESHAs shall be sited and designed to prevent impacts which would significantly degrade such areas, and must be compatible with the continuance of such habitat areas.


- RC-1d Sensitive habitat definition.** The City declares the following to be ESHAs within the Planning Area:

1. Rivers, creeks, sloughs, and associated riparian habitats: Mad River; Jacoby Creek; Beith Creek; Grotzman Creek; Campbell Creek; Jolly Giant Creek; Janes Creek; Gannon Slough; Butcher Slough; and McDaniel Slough.




2. Wetlands, estuaries, and associated riparian habitats: Arcata Bay; Mad River Slough; Liscom Slough; Butcher Slough; the Aldergrove marshes and ponds; and the Arcata Marsh and Wildlife Sanctuary.
3. Other unique habitat areas: waterbird rookeries; shorebird concentration sites; habitat for all rare, threatened, or endangered species on federal or state lists; and vegetated dunes.
4. Public Trust lands such as grazed or farmed wetlands (i.e., diked/reclaimed former tidelands).

RC-1e  **Threshold of City review for sensitive habitat effects.** Development on parcels designated Natural Resource [NR] on the Land Use Plan Map, or within 250 feet of such a designation, or development potentially affecting a sensitive habitat area, shall be required to be in conformance with applicable habitat protection policies of this Element. All proposed development plans, including grading and drainage plans, submitted as part of a planning entitlement application for these areas, shall show the precise locations of all sensitive habitat areas on the site plan.

RC-1f  **Sensitive habitat buffer requirements.** A setback separating all permitted development from adjacent sensitive habitat areas shall be required. The purpose of such setbacks shall be to prevent any degradation of the ecological functions provided by the habitat area as a result of the development. The following shall apply to such setbacks:


1. The minimum width of setbacks for streams and wetlands shall be as provided in policies RC-2 and RC-3, respectively.
2. The minimum width of all other habitat setbacks shall be 100 feet, unless the designated setback would eliminate all reasonable use of the property.
3. A definition and map of sensitive habitat will be maintained by the City.


RC-1g  **Sensitive habitat information required in development application review.** Where there is a question regarding the boundary, buffer requirements, location, or current status of an ESHA identified pursuant to General Plan policies, the public or private applicant shall provide the City with the following:

1. Base map delineating topographic lines, adjacent roads, and location of dikes, levees, flood control channels, and tide gates, as applicable.
2. Vegetation map, including identification of species that may indicate the existence or nonexistence of a sensitive environmental habitat area.
3. Soils map delineating hydric and non-hydric soils.
4. Census of animal species indicating the existence, or non-existence, of an environmentally sensitive habitat area.

This information shall be provided to the Department of Fish and Game, US Fish and Wildlife Service, National Marine Fisheries Service, and other affected agencies for review and comment. Any comments and recommendations provided by the Department shall be immediately sent to the applicant for his or her response. The decision concerning the boundary, location, or current status of the environmentally sensitive habitat area in question shall be based on the substantial evidence in the record and supported by written findings.



RC-1h  **Habitat integration for ecological integrity and development of a protected habitat corridor system.** An ecological connection network plan for linking native habitats in the Planning Area, and all of the environmentally sensitive habitat areas identified in this Plan, shall be prepared. The network shall incorporate all existing large areas (or "nodes") of habitat for fish and wildlife species (such as marshes and forests) and "linkages" or "corridors" of natural habitat (such as stream zones and sloughs) for migration and species movement. The plan will link large "nodes" of natural habitat together with the "linkage" connections as a functioning ecological network. Nodes and linkages shall include a "core" of natural ecosystem elements and shall provide a protected "buffer" along the outer margins of the core habitat which shall function to protect the ecological values in the "core" habitat.

RC-1i  **Use of biocides and other compounds with biological consequences.** Pesticides, herbicides and insecticides (biocides); hormones and antibiotics (growth promoters); and hydrocarbon based compounds, used both commercially and individually, can accumulate to toxic levels in biological organisms, including humans. Certain of these substances, even at low levels, can affect reproductive health.

The City shall maintain and make available a current list of alternative, environmentally-safe products for controlling unwanted vegetation and pests, growing crops and enhancing production of animal products. The use of substances and compounds which can accumulate to toxic levels is restricted by the City (Pesticide Ordinance), and a program for fostering the reduction in private use shall be developed and implemented.

POLICY RC-2 STREAMS CONSERVATION & MANAGEMENT

Objective. Enhance, maintain, and restore the biological integrity of entire steamcourses (headwaters to mouth), and their associated riparian habitats, as natural features in the City's landscape.

RC-2a Designation of protected streams. The provisions of this policy shall apply to those streams shown on the Protected Watercourse Map (Figure RC-a). These watercourses and their associated riparian areas serve as habitat for fish and wildlife, provide space for the flow of stormwater runoff and flood waters, and furnish open space and recreational areas for city residents.




RC-2b Streamside Protection Areas (SPA). A streamside protection area is hereby established along both sides of the streams identified on the City Watercourse Map. The purpose of the SPA is to remain in a natural state in order to protect streams' ecosystems and their associated riparian habitat areas. The SPA shall include:

1. In areas where existing development, as defined in the Land Use Code, is adjacent to the stream, the SPA shall be not less than 25 feet outward on both sides of the stream, measured from the top of bank.
2. In all other locations within the City, the SPA shall be not less than 100 feet outward on both sides of the stream, measured from the top of bank.
3. In locations within the City having significant areas of riparian vegetation exceeding 100 feet in width measured from the top of bank, the SPA shall be expanded to encompass all of the riparian vegetation, except in no case shall the SPA exceed 250 feet in width from the top of bank on either side of the stream.

SPAs outside of the City shall follow the policies in the Humboldt County Framework Plan, regarding Streamside Management Areas.

RC-2c Allowable uses and activities in streamside protection areas. The following compatible land uses and activities may be permitted in SPAs, subject to all other policies in this Element, including those requiring avoidance of impacts and other mitigation requirements:

1. Outside the Coastal Zone:
 - a. agricultural operations compatible with maintenance of riparian resources;
 - b. fencing along property boundaries and along SPA setback boundaries to prevent bank erosion and degradation of natural riparian vegetation by livestock;
 - c. maintenance of existing roads, driveways, and structures;
 - d. construction of public road crossings;

- e. forest management practices as permitted by the State of California or Arcata's Forest Management Plan;
 - f. construction and maintenance of foot trails for public access;
 - g. construction and maintenance of utility lines;
 - h. resource restoration projects;
 - i. emergency or preventive removal of sediment and vegetation for flood control purposes (only when authorized by the City of Arcata).
 -  2. In the Coastal Zone:
 - a. all uses and activities listed in (1) above;
 - b. public coastal access improvements;
 - c. boat launching facilities.
 - 3. If the provisions herein would result in any legal parcel, not on Public Trust lands, created prior to the date of this plan, being made unusable in its entirety for any purpose allowed by the land-use plan, exceptions to the foregoing may be made to allow a reasonable economic use of the parcel, subject to approval of a conditional use permit. Any land use, construction, grading, or removal of vegetation which is not listed above shall be prohibited.
- RC-2d **The Wetland and Stream Protection Combining (:WSP) Zone.** The :WSP zone of the Land Use and Development Code shall be applied to all streamside protection areas. [The WSP zone should be a land use designation under the NR district, e.g., NR-WSP, NR-AG, NR-TPZ.]
- RC-2e **Review and approval of projects affecting streamside protection areas.**
 Applications for development on any parcel which is located partially or wholly within an SPA shall be subject to the requirements of Policy RC-1 and RC-2.
- RC-2f **Conservation easement.** Dedication of a conservation easement, or equivalent deed restriction, encompassing the area within the SPA shall be required as a condition of approval of any discretionary planning permit, including design review, when any portion of the project site falls within an SPA. Such easements may be conveyed to the City of Arcata, to another governmental agency which shall manage the easement to protect the SPA's functions, or to an appropriate non-profit entity.
- RC-2g **Maintenance of streams as natural drainage systems.** Arcata's creeks carry a significant amount of the City's stormwater. Drainage controls shall be enforced through implementation of the Drainage Master Plan, to protect water quality, and minimize erosion, sedimentation and flood impacts to City creeks. A comprehensive stream maintenance program shall be prepared to augment stormwater utility rehabilitation projects designed to improve flow capacity, minimize channel erosion, and enhance riparian habitat.


RC-2h Restoration of degraded creek resources. Portions of Janes, Jolly Giant, Campbell, and Grotzman Creeks are culverted or covered, causing degradation of creek resources. Streams such as Janes Creek have tide gates which are barriers that prevent anadromous salmonids from accessing critical habitat. Furthermore, recreational use has degraded riparian vegetation along upland reaches of certain creeks (e.g., Jolly Giant, Campbell, and Jacoby Creeks) within Redwood Park and the Community Forest. Lack of vegetation along creek courses can cause erosion, resulting in water and airborne impacts. Restoration activities for improving degraded stream resources shall include:

1. Uncovering of creek courses in public rights-of-way, as part of public works improvement projects.
2. Encouraging landowners to restore degraded SPA and stream resources, including native riparian vegetation establishment and exotic species removal, as part of a new development or renovation.
3. Controlling uses that are damaging to upland reaches of creeks in the Community Forest and Redwood Park.
4. Removing or modifying barriers such as tide gates that prevent migrating anadromous salmonids which are federally listed endangered species from reaching their critical habitat.
5. Exclusionary fencing to keep livestock out of the SPA.

The Streams Management Plan shall be implemented to provide guidance for rehabilitation and management of creeks that flow through Arcata. The SMP addresses new and modified development along creeks, and existing activities in creek zones. Stream rehabilitation projects shall be designed to maintain or improve flow capacity, trap sediments and other pollutants which decrease water quality, minimize channel erosion, prevent new sources of pollutants from entering the stream, and enhance instream and riparian habitat.

POLICY RC-3 WETLANDS MANAGEMENT

Objective. To protect existing wetlands areas and their functional capacities and values, maintain a standard of "no net loss" in area and value, restore degraded wetland areas, enhance wetlands functions, and create additional wetland areas to replace historical losses.

RC-3a Requirement for wetland delineation and study. All proposed development applications shall include a site plan that shows the precise location of any wetlands that exist on the subject property. Any application for development on a parcel where wetlands may be present shall include a wetland reconnaissance or delineation report as follows:

1. The reconnaissance or wetlands delineation and report shall be based upon field investigations and shall be prepared by a professional or technical expert qualified in wetlands biology or plant ecology.
2. For purposes of this plan, wetlands shall include those lands where one or more of the following three characteristics are present:
 - a. source of water (surface or subsurface) which is present for sufficient periods to promote hydric soils formation or growth of hydrophytic plant species;
 - b. hydric soils; or
 - c. hydrophytic plants.
3. Where a reconnaissance indicates the probable existence of wetlands, marsh reeds detailed wetland delineation shall be required, including a map with the best available contour information showing where each of the three factors are present and the precise boundaries of any areas which are determined to be wetlands.
4. If wetlands of any size are found to exist on the property, an analysis of the potential functional or habitat value of the wetlands shall be provided.



RC-3b Filling of wetlands. The following shall apply:



1. Filling of wetlands shall be prohibited in the Coastal Zone, unless it can be demonstrated that:
 - a. the wetland restrictions, if imposed, would render a parcel, not subject to the Public Trust, unusable for any use permitted by the land use plan;
 - b. there is no feasible, environmentally superior alternative to wetland fill for development of a permitted use; and
 - c. the fill is the least amount necessary to allow development of permitted uses.
2. Filling of wetlands outside the Coastal Zone may be permitted only when the following has been demonstrated by the project proponent:
 - a. the fill is the least amount necessary to allow a reasonable and harmonious configuration of development on the parcel;
 - b. the wetlands proposed to be filled are small and isolated, and have limited functional value when compared to larger, contiguous wetland areas.
3. Filling of wetlands shall only be authorized if appropriate mitigation, resulting in "no net loss" in area and value of wetlands, is provided. Mitigation may consist of creating and maintaining a new wetland of equal or greater functional capacity and value than the wetland proposed to be filled, restoration of previously degraded wetlands, or enhancement of existing wetland areas.

RC-3c Designation of Wetland Protection Areas (WPA). A WPA shall be established to separate all permitted development from adjacent existing wetlands which are to be preserved in a natural state and new wetland areas which are created as a mitigation. The WPA's purpose is to remain in a natural state in order to protect wetland ecosystems and their associated habitat areas from destruction or degradation. The extent of the WPA shall be established based upon analyses and recommendations contained in a site-specific wetland delineation study, but shall include the wetland area and a setback area which shall generally range from a 50 foot minimum to a 100 foot maximum. Specific findings, based on evidence provided for City review, shall be required for setbacks less than 100 feet.

RC-3d Allowable uses and activities in Wetland Protection Areas. The following compatible land uses and activities may be permitted in WPAs, subject to all other policies in this Element, including those requiring avoidance of impacts and other mitigation requirements:

1. Resource restoration or enhancement projects.
2. Farming, consistent with policy RC-3l.
3. Outdoor recreation activities, such as bird watching, hiking, boating, horseback riding, and similar activities.
4. Education, scientific research, and use of nature trails.
5. Drainage ditches when compatible with wetland function.
6. Minor modification of existing, serviceable structures.
7. Fencing to prevent livestock from degrading wetlands and riparian vegetation.



Any use, construction, grading, or removal of vegetation which is not listed above shall be prohibited.

RC-3e Wetland and Stream Protection Combining (:WSP) Zone. The :WSP zone of the City's Land Use Code shall be applied to all Wetland Protection Areas.

RC-3f Review and approval of projects affecting Wetland Protection Areas. Applications for development on any parcel which is located partially or wholly within a WPA shall be subject to the requirements of Policy RC-1 and RC-3.

RC-3g Conservation easements. Dedication of a conservation easement, or equivalent deed restriction, encompassing the area within the WPA shall be required as a condition of approval of any discretionary action, including design review, when any portion of the project site falls within an WPA. Such easements may be conveyed to the City of Arcata, another governmental agency, or City-approved non-profit entity which shall manage the easement to protect the WPA's functions.

RC-3h Designation of wetland protection zones. The :WSP Zone shall be applied to wetlands, wetland setbacks, wetland buffer areas and modified wetland buffer areas, as defined in the City's Land Use Code, at the time of development review and approval.

A wetlands map, maintained by the City, will show the general location of wetlands, riparian corridors, and uplands within the City limits and urban services zone. All development within or adjacent to the areas identified on the map as wetlands or riparian corridors shall comply with City Wetlands Development Standards and shall include the following:

1. A wetland delineation.
2. A mitigation plan for impacted areas.
3. Setback areas from delineated wetlands.
4. Easements for onsite delineated wetlands.
5. Permitted and protected uses/activities within delineated wetland areas.
6. Fencing to prevent livestock from degrading wetlands and riparian vegetation.

A Wetlands Buffer Area shall be required to protect the areas shown as wetlands on the Wetlands Map. All development within the buffer areas shall comply with the Wetlands Buffer Area Development Standards of the Coastal Land Use and Development Guide.

RC-3i Management of Arcata Marsh for wetlands values as well as wastewater treatment.



The marsh and wildlife sanctuary serves a variety of purposes and functions, including providing wetland habitat for a variety of species, wastewater treatment, and recreational use. These purposes shall be balanced for the benefit of all users.



RC-3j Minimum mitigation requirements for wetland impacts. Diking or filling of a wetland that is otherwise in accordance with



the policies of this General Plan, shall, at a minimum, require the following mitigation measures, monitoring program, and funding.

1. A detailed restoration plan, monitoring program, and funding source for each site shall be required as part of the project application. The restoration plan shall include provisions for restoration to equal or greater wetland biological productivity. The monitoring program shall include reporting requirements that document mitigation success. Dedication of the land to a public agency, purchase, or other stewardship method which permanently restricts the use of the site to habitat and open space purposes, shall be required. The site shall be dedicated, purchased, or other stewardship agreed upon, and mitigation funding shall be provided, prior to any permitted diking or filling.
2. Areas adequate to maintain functional capacity shall be opened to tidal action, or other sources of surface water shall be provided. This provision shall apply to diked or filled areas which themselves are not environmentally sensitive habitat areas, but would become so if, as part of a restoration program, they are opened to tidal action or provided with other sources of surface water. All of the provisions for restoration, purchase (if necessary), and dedication described under part 1 shall apply to any program or activity performed pursuant to this policy.
3. Mitigation shall, to the maximum extent feasible, be of the same type as the wetland to be filled (e.g., freshwater marsh for freshwater marsh, saltwater marsh for saltwater marsh, etc.).
4. Where no suitable private or public restoration or enhancement sites are available, or where a wetlands mitigation bank in Arcata's Planning Area has been established that provides suitable replacement area, an in-lieu fee may be required to be paid. The fees shall be paid to an appropriate public agency for use in the restoration or enhancement of an area of equivalent productive value or surface area, or to the entity managing the wetlands mitigation bank.


RC-3k



Wetland functional capacity maintenance requirement. Diking, filling, or dredging of a wetland or estuary shall maintain or enhance the functional capacity of these resources. Functional capacity means the ability of the wetland or estuary to be physically and biologically self-sustaining and to maintain natural species diversity. In order to establish that the functional capacity is being maintained, all of the following must be demonstrated:

1. Presently-occurring plant and animal populations in the ecosystem will not be altered in a manner that would impair the long-term stability of the ecosystem (i.e., natural species diversity, abundance and composition are essentially unchanged as the result of the project).
2. A species that is rare or endangered will not be significantly adversely affected.

3. Consumptive (e.g., fishing, aquaculture and hunting) or non-consumptive (e.g., water quality and research opportunity) values of the wetland or estuary ecosystem will not be significantly reduced.

RC-3I  **Uses allowed in diked/reclaimed former tidelands.** Allowable uses and development in grazed or farmed wetlands are limited to uses compatible with the Public Trust. These uses are specified in Land Use Element Policy LU-6 and are summarized below.

1. Agricultural operations limited to accessory structures, apiaries, field and truck crops, livestock raising, greenhouses (provided they are not located on slab foundations and crops are grown in the existing soil on site), and orchards.
2. Farm-related structures, including barns, sheds, and farmer-occupied housing, necessary for the performance of agricultural operations. Such structures may be located on an existing grazed or farmed wetland parcel only if no alternative upland location is available for such purpose and the structures are sited and designed to minimize adverse environmental effects on Public Trust resources and uses. No more than one primary and one secondary residential unit shall be allowed per parcel.
3. Restoration projects.
4. Nature study, aquaculture, and similar resource-dependent activities compatible with Public Trust resources and uses.
5. Incidental public service purposes which may temporarily impact the resources of the area (such as burying cables or pipes).

Expanding farming operations into non-farmed wetlands, by diking or otherwise altering the functional capacity of the wetland is not permitted. Farm-related structures (including barns, sheds, and farm-owner occupied housing) necessary for the continuance of the existing operation of the farmed wetlands may be located on an existing farmed wetland parcel, only if no alternative upland location is viable for such purpose and the structures are sited and designed to minimize the adverse environmental effects on the farmed wetland. Clustering and other construction techniques to minimize both the land area covered by such structures and the amount of fill necessary to protect such structures will be required.

POLICY RC-4 OPEN WATERS OF ARCATA BAY & TIDELANDS

Objective. Maintain existing Bay wetlands and tide lands, protect them from urban and agricultural encroachments, or degradation, and manage the open waters of Arcata Bay for their wildlife, fisheries, navigation and ecological values and recreation and tourism uses.



RC-4a Protection of open waters /tideland areas of Arcata Bay.

The tidal and water areas of Arcata Bay constitute a fragile Public Trust resource and access shall be controlled to avoid resource degradation, while maintaining the public's right to navigation. Tidal marshes shall be enhanced and maintained, especially in the areas of McDaniel, Gannon, and Butcher's Sloughs, to protect wetland values.

RC-4b Access to Arcata Bay. The following routes are designated as Public Access

Corridors and are to be properly signed and identified as approved Bay access points.

1. "I" Street from Samoa Boulevard, south through the Arcata Marsh and Wildlife Sanctuary to the boat launching facility on Arcata Bay.
2. South "G" Street south of "H" Street, to Highway 101.
3. Highway 101 from Samoa Boulevard (Highway 255), south to Bayside Cutoff.
4. Samoa Boulevard from Highway 101 west to Mad River Slough.

A system of foot trails and interpretive sites shall be established along the Arcata Bay shore westward to the City limit, subject to the following guidelines.

5. All planning and development in the area that is both South of Samoa Boulevard and west of State Route 101 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.
6. 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.
7. Motorized vehicles shall be restricted to paved roads and parking lots.
8. Pedestrians shall be restricted to designated trails and facilities.
9. Valid scientific and educational studies of wetlands and tidelands are encouraged.

RC-4c Coastal-dependent and public trust uses of Arcata's tidelands. Tidelands of Arcata

Bay support a variety of wildlife as well as human activities. The following provisions shall be made for managing tideland areas.

1. New development shall not restrict access to the shoreline. Access to coastal areas shall be required for new development.
2. Tidelands and water areas of Arcata Bay shall be designated Natural Resource-Public Trust Lands [NR-PTL], and identified as passive use recreational areas.

3. The Arcata Marsh and Wildlife Sanctuary shall be designated as Natural Resource [NR] and the recreational component of the project identified as a passive use recreational area.
4. The continued use of the tideland for scientific and educational studies is encouraged.
5. The Arcata Marsh and Wildlife Sanctuary (AMWS) shall be maintained and new facilities shall be consistent with the AMWS plan adopted by the City Council.
6. The South "I" Street boat launch shall be enhanced and maintained to accommodate small watercraft and windsurfing.
7. The placement of interpretative sites along the Arcata Bay shore, including Nature and Wildlife Centers, shall be coordinated with other agencies, and serve as an educational focal point for Arcata's natural resource areas.
8. Access on the levee from the AMWS westward to the City limit will be provided for passive recreation and nature observation.




RC-4d Diking, dredging, filling, and shoreline structures. Diking, filling, or dredging of Bay waters, wetlands, and estuaries shall be permitted where it has been demonstrated that the Public Trust resources and values are being protected, and mitigation measures have been provided, which minimize adverse environmental effects, for the following limited uses.

1. Incidental public service purposes including, but not limited to, burying cables and pipes, and maintaining existing dikes and public facilities.
2. Maintaining a channel adequate to serve the boat ramp at current levels of use.
3. Resource restoration purposes.
4. Nature study, aquaculture, or similar Public Trust resource dependent activities.
5. Agriculture as currently practiced within existing farmed wetlands but not including the expansion thereof.

In order to protect existing development, shoreline structures (such as dikes or tidegates) that may alter the natural shoreline, may be permitted only when they do not effect any federally listed species and no other feasible, less environmentally-damaging alternative is available, and only when not located within a wetland, unless the wetland will be the primary beneficiary of the structure.

The disposal of dredge spoils on existing wetlands shall not be permitted unless such disposal is necessary for either a Public Trust resource restoration project or for


the maintenance of existing agricultural operations in farmed wetlands. Fill will be allowed for aquaculture projects if it can be shown that it is necessary for the project, is required to be located within the wetland, and there is no other feasible, less environmentally damaging, alternative.

RC-4e  **Aquaculture use of coastal wetlands/tidelands.** To protect aquaculture activities in Arcata Bay, the City shall:

1. Ensure that its wastewater discharge does not aggravate existing coliform loading problems in Arcata Bay.
2. Take measures to reduce coliform loading of perennial streams within its jurisdiction, as part of a stream maintenance program. These measures shall include controlling identified sources of coliform loading such as septic tank leachate and runoff from agricultural operations.

Aquaculture shall not adversely impact natural ecological processes nor native wildlife or fisheries or their habitat in the Bay. No new aquaculture uses shall be permitted unless it can be demonstrated that adequate precautions will be taken to prevent new adverse impacts to natural ecological processes. The City shall continue its management of:

1. Integrated wetland enhancement and wastewater treatment.
2. The tidelands, for commercial and native oyster harvesting.

RC-4f  **Management of bayfront and marsh areas for coastal access, recreation, and tourism.** Tidelands and water areas of Arcata Bay shall be designated Natural Resource-Public Trust Land [NR-PTL] and protected from uncontrolled access. The following guidelines shall be used when permitting access to these areas:

1. Motorized vehicles shall be restricted to paved roads and parking lots.
2. Pedestrians shall be restricted to designated trails and facilities.
3. Valid scientific and educational studies of the wetlands and tidelands shall be encouraged.

New development shall not restrict public access to the shoreline. Public access to the shoreline shall be required of new development. Where consistent with the Humboldt Bay National Wildlife Refuge's Management Plan, controlled public access to the Refuge's Jacoby Creek Unit shall be developed along Arcata Bay from the AMWS to the City's westward limit.

POLICY RC-5 AGRICULTURAL RESOURCES MANAGEMENT

Objective. Protect and enhance agricultural uses on prime agricultural lands within the City, and encourage more productive agricultural use of agriculturally suitable lands.

RC-5a Promotion of and participation in agricultural production within the City. Diverse and intensive agricultural production and increased participation shall be promoted, in order to maintain the value of agricultural lands, improve the economic base, and increase employment and food production. The City does not, however, advocate more intensive agricultural uses and practices that would have adverse environmental impacts. Agricultural operations, such as Community Supported Agriculture (CSA) are strongly encouraged.



- RC-5b Agricultural Advisory Committee.** The City shall appoint an Agricultural Advisory Committee to advise on agricultural issues and programs. The responsibilities of the committee shall include, but are not limited to:
1. Development of a Community and Farm Protection Ordinance, as well as conflict resolution protocol.
 2. Development of programs (educational, leasing, and purchase) that will encourage responsible productive uses of agricultural lands.
 3. Identification of lands for preservation and/or acquisition programs.
 4. Maintain a database of resources available to farmers, such as Williamson Act advantages, conservation easements, organic farming practices, and marketing strategies.
- RC-5c Community and farm protection.** Maintaining a compatible relationship between agricultural and residential uses will be based on:

1. Recognizing the rights of owners of productive agricultural land to make agricultural use of their land.
2. Identifying and minimizing potential conflicts between agricultural operations and adjacent residential, commercial, and community facility uses.
3. A Community and Farm Protection Ordinance shall provide a foundation for minimizing conflicts, educating the community, and a protocol for mediating unresolved disputes. Once adopted, the ordinance shall be mailed to all owners of agricultural and adjacent lands and disclosed to affected property owners at the time of parcel transfer.

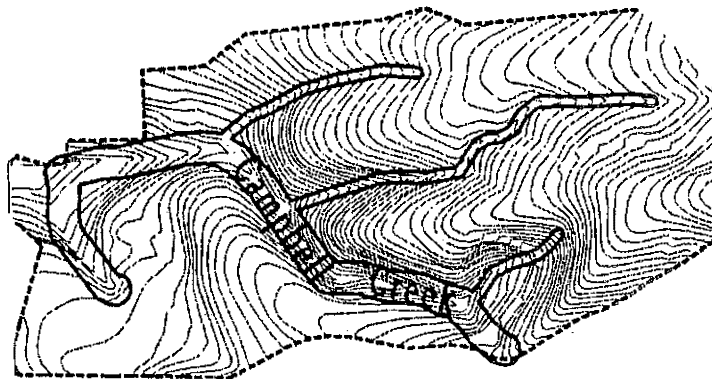
RC-5d Permanent protection for agricultural lands. Protection of agricultural resources shall be secured through the purchase of conservation easements, development rights, and outright acquisition. The City shall work in conjunction with other entities such as land trusts, whenever possible, to preserve agricultural buffers and maintain and enhance agricultural uses on prime agricultural soils.

POLICY RC-6 FOREST RESOURCES MANAGEMENT

Objective. Protect and enhance private and public forest lands (Community and Jacoby Creek) to maintain the integrity of the ecosystem while providing timber production, recreation, and habitat values.

RC-6a Management of Arcata Community Forest. The City's forest management plan includes the following policies:

1. **Recreation and aesthetics resource management** - The community forest will emphasize dispersed, day-use opportunities. Recreational use shall not be allowed to impact other resources such as fish, wildlife, or watershed.
2. **Timber resource management** - To ensure the sustainable and long-term production of forest products, the rate of harvesting must not exceed the rate of production. Long-term productivity refers to the continuing ability of the forest to produce timber while retaining the associated values of watershed, wildlife, soils, recreation and aesthetics. This is dependent upon the use of management practices that do not allow for the deterioration or impairment of soil productivity or the alteration of the natural landscape beyond its ability to recover. For planning purposes, long term means that exceeding fifty years.
3. **Watershed resource management** - Water quality, soil, riparian, and aquatic biological productivity shall be maintained and enhanced through the application of City forest management standards and the implementation of watershed improvement projects.



4. **Wildlife resource management** - Wildlife habitat is managed to promote species diversity and to ensure that populations of indigenous species are maintained. This can best be achieved through the maintenance and enhancement of habitat values. Habitat values which lead to species diversity include the following elements: breeding, foraging, watering, rearing, hiding and thermal cover.
5. **Vegetation and botanical resources** - Maintain the native component of species found in the redwood forest, both by controlling exotics and managing for a species mix that would be found naturally in the redwood forest.

RC-6b **Management of Jacoby Creek Forest.** The management policies for the Jacoby Creek Forest are the same as those for the Arcata Community Forest, listed above, except that the Jacoby Creek Forest is not open to recreational use.

RC-6c **Allocation of forest fund revenues.** At least twenty percent of net forest fund revenues, derived from timber cutting, shall be directed towards park acquisition, maintenance, and development. This can include acquisition of stream corridors, and riparian and greenbelt areas. These areas contribute to the diversity of parks and, in the case of linear parks along stream corridors, provide passive recreation areas compatible with the environment. The acquisition of open space shall be emphasized as an appropriate use for the remaining revenues.

RC-6d **Management practices for private timberlands.** The management of private timberlands shall be encouraged to use current principles of sustainable forestry for all aspects of forest use and function: recreation; timber production; biodiversity; air and water quality; and carbon storage. Timber owners are encouraged to apply for conservation easements, certified forestry, or compensation for carbon storage.

RC-6e **Timber harvest plans.** The City, in cooperation with California Department of Forestry, shall request review of all Timber Harvest Plans (THP) within the Planning Area. The City shall review THPs for measures that protect water quality, control erosion and flooding, and preserve the City viewshed. The city shall recommend that THPs which do not include these measures not be approved.

RC-6f **Urban conversions.** The sustainable management of timber resources, and related uses, shall be encouraged, so that the long term economic return from productive timber production will provide sufficient incentives to prevent urban conversions. Urban conversions are discouraged within the Urban Services Boundary.

RC-6g **Setbacks.** Development adjacent to the Community Forest boundary shall be setback at least 150 feet, unless this would make the use of the parcel infeasible for its designated purpose. However, larger setbacks may be required to prevent exposure to potential hazards and to maintain forest integrity.

RC-6h Monitoring. Monitoring of forest practices, to ensure consistency with adopted management and harvest plans, shall be carried out as an implementation measure of this Element. The general objectives of the monitoring will be to:

1. Determine the effectiveness of management practices at multiple scales (i.e., individual sites to watersheds).
2. Validate ecosystem functions and processes have been maintained as predicted.

POLICY RC-7 WATER RESOURCES MANAGEMENT

Objective. Manage Arcata's water resources from a watershed perspective, to maintain surface and subsurface water quality and quantity. Runoff will be managed for the benefit of aquatic habitats.

C-7a Protection of surface waters from point and nonpoint pollution sources. The use of natural stormwater drainage systems, which preserve and enhance natural features, shall include the following:



1. Efforts to acquire land or obtain easements for drainage and other public uses of floodplains, where desirable to maintain stream courses in a natural state, shall be supported.
2. Recreational opportunities and aesthetics shall be considered in the design of stormwater detention/retention and conveyance facilities.
3. Sound soil conservation practices shall be required, and impacts of proposed developments, with regard to water quality and effects on watersheds, wetlands and drainage courses, shall be carefully examined.
4. The quality of runoff from urban and suburban development shall be improved through use of appropriate and feasible mitigation measures including, but not limited to, artificial wetlands, grassy swales, infiltration/sedimentation basins, riparian setbacks, oil/grit separators, and other best management practices (BMPs).
5. New development shall be required to mitigate to the maximum extent feasible increases in stormwater peak flows and/or volume. Mitigation measures should take into consideration impacts on the Mad River, Arcata Bay, and adjoining lands in the City and Planning Area.
6. New project designs shall minimize drainage concentrations, maximize permeable surfaces (such as unpaved parking areas) and maintain, to the extent feasible, natural site drainage conditions.
7. New projects that affect the quantity and quality of surface water runoff shall be required to allocate land necessary for detaining post-project flows and/or for incorporating measures to mitigate water quality impacts related to urban runoff. To the maximum extent feasible, new development shall not produce a net increase in peak stormwater runoff.



- RC-7b Protection of groundwater sources.** Septic systems and onsite disposal of toxic substances are the leading causes of groundwater contamination. Septic systems within the Urban Services Boundary shall not be permitted, and incidents of onsite toxics disposal shall be referred to the appropriate county and state agencies.
- RC-7c Watershed and urban runoff management.** To protect structures, critical facilities, existing habitat values and water quality, flooding shall be managed on a watershed basis, using a combination of biotechnical solutions, flood protection practices, and Drainage Master Plan's management practices.
- RC-7d Water quality monitoring.** Water quality and quantity shall be monitored on a regular basis to ensure that City policies are being adhered to.

POLICY RC-8 ENERGY RESOURCES MANAGEMENT

Objective. Reduce the net emissions of greenhouse gases from Arcata; reduce other negative impacts of energy production and use, including risks from nuclear power, air emissions, fuel spills, and wildlife and habitat destruction; reduce energy costs to the city and its residents, and increase the percent of energy purchases from sources within our region; increase the city's and nation's energy security and reduce our vulnerability to changes in energy availability and price; increase public awareness of energy issues and encourage an energy conservation ethic; monitor the cost and effectiveness of Arcata's actions so we and others can learn from them; and implement Arcata's Advisory Proposition B.

Advisory Proposition B

Approved by Arcata Voters April 8, 1980

"In accordance with America's renewed determination to be energy self reliant, be it resolved that the citizens of Arcata and their City government are committed to the enactment of conscientious energy conservation measures and the accelerated development and active promotion of safe and economical alternative renewable energy sources for our community.

Be it further resolved that the City government of Arcata support complete independence from nuclear power including the permanent closure of the Humboldt Bay nuclear power plant and its replacement by safe, clean and efficient generating sources more compatible with the resources and health and safety of the Northcoast, such as conservation, solar power and generation from wood waste."

- RC-8a Encouragement of appropriate energy alternatives.** In making energy purchases, the City shall consider how suppliers meet the objectives of this policy. The City shall choose suppliers that provide good tradeoffs among these objectives, giving due consideration to investment in energy conservation as an alternative use of energy funds.

In addition, the City shall attempt to purchase at least 10% of its electrical energy (in energy units, not cost) from renewable sources within Humboldt County by the year 2020.

The City shall take measures to encourage the availability to, and use by, residents of energy suppliers that best meet the objectives of this policy. The City shall convert City vehicle fleets to a mix of fuels that best meets the objectives of this policy.

- RC-8b Encouragement of energy efficiency and conservation.** The City shall coordinate with energy suppliers and agencies to educate residents, property owners, and business operators about the need for and benefits of conserving energy. The City shall maintain and distribute current information about building insulation; energy efficient appliances, lighting, and heating; other conservation measures and materials; and home power alternatives.

The City shall continuously seek and implement cost-effective steps to reduce City energy use. The City shall attempt to reduce the City's total consumption of purchased energy by at least 20% (in energy units, not cost) by the year 2010.



The City shall adopt the goals of the national "Energy Star Program" (or its successor programs) for all City construction projects and all construction projects assisted by grants for which the City is an applicant. These goals include using 30% less energy than would a building designed with existing Title 24 standards.

- RC-8c Promotion of energy efficiency in transportation.** The City shall give strong consideration to energy conservation and the goals of this policy in all transportation and traffic management decisions. It is City policy to reduce the need for motor vehicle trips within the city and between the city and other destinations, and to reduce per-trip energy consumption; this policy applies to trips by residents, non-residents, and city staff. Such measures as bike and pedestrian paths, public transportation, parking and traffic management, and encouraging use of alternative-fueled vehicles shall be used to make these reductions.

POLICY RC-9 SOILS AND MINERAL RESOURCES

Objective. Conserve and manage soil and mineral resources.

RC-9a Erosion control measures on slopes and other areas of instability. Policy PS-3 - Other Geologic Hazards in the General Plan Public Safety Element includes provisions for protecting steep and unstable slopes, and minimizing erosion and sedimentation. This policy shall be followed as a safety precaution and also to conserve soil resources.

RC-9b Protection of productive soils and soils with limitations. Local soils range from productive soil types capable of supporting agriculture and forestry, to those susceptible to shrink-swell and erosion. Clay soils are the most susceptible to shrink-swell, caused by fluctuations in moisture content. According to available soils information, the Bayside series is the only soil type in the Arcata area with identified clay content. Building construction on this soil type shall include measures to avoid damage from shrink-swell.

Certain areas of the City have high liquefaction potential during seismic events. Policy PS-2 - Seismic Hazards, in the General Plan Public Safety Element, addresses mitigation of liquefaction hazards. This policy shall be followed as a safety precaution, and also to manage related soil limitations. Policy RC-5, relating to agricultural soils, shall also be followed to conserve productive soils. The continued research, identification, and protection of productive soils by the Natural Resource Conservation Service and educational institutions shall be encouraged.

RC-9c Management of mineral resource extraction, processing and transport (gravel). Areas along the Mad River, within and upstream of the City's Sphere of Influence, are currently used for aggregate resource extraction. The City shall encourage Humboldt County to limit the quantity of aggregate extracted to an amount that is mean annual recruitment; and request that Policy RC-1 and RC-2 be applied to protect natural biological diversity and ecosystem functions along the river. The City shall also request that the County not approve or renew permits for commercial mineral resource extraction in A-E designated lands of the City's Planning Area. Mineral resource operations shall not result in additional soil runoff and shall be consistent with the City's seismic safety policies (see Policy PS-2 in Public Safety Element).

4.6 IMPLEMENTATION MEASURES

#	IMPLEMENTATION MEASURE DESCRIPTION	RESPONSIBLE PARTY	TIME FRAME
RC -1	Creeks Management Plan Regularly update the City Creeks Management Plan, at least every five years, to implement current provisions for maintaining biological integrity of entire watercourses. The Creeks Management Plan will also include updated provisions for education and restoration programs for degraded creeks.	Environ-mental Services Dept./Creek Advisory Committee	Year 1 then every 5 years
RC -2	Community Forest Management Plan Update the Community Forest Management Plan, at least every ten years, to implement current provisions for managing recreation, aesthetic, timber, watershed, wildlife, and vegetation resources. The Management Plan will also include updated provisions for allocation of forest fund revenues and urban conversions, as well as setbacks from the Community Forest boundary and a monitoring program for forest practices.	Environ-mental Services Dept./Forest Management Committee	Year 5 then every 10 years
RC -3	Energy Efficiency and Conservation Program Conduct a continuous program to identify and purchase appropriate energy supplies, implement and evaluate energy conservation measures, provide energy education and public information, and promote energy efficiency in transportation. Establish a funding mechanism to assure that a significant portion of the savings are used to fund energy programs and as a reward for savings.	Environ-mental Services Dept./Energy Task Force	Year 1 then every 5 years
RC -4	Non-native Plant and Animal Species Removal Program The City shall provide public information that explains why invasive species are a problem. The City shall maintain a program that recommends effective but non-toxic eradication measures, and eradicates non-native species on public lands where they are displacing native species.	Environ-mental Services Dept./Agricultural Advisory Committee	Year 1 then every 5 years
RC -5	SPAs, :WSP Combining Zone, Resource Setbacks and Energy Conservation Measures (PLUC Amendment) Revise the PLUC (formerly LUDC) regulations to be consistent with the General Plan policies for SPAs, the :WSP combining Zone, natural resource (forest) area setbacks and energy conservation techniques.	Environ-mental Services Dept./Planning Commission	Year 1 then every 5 years
RC -6	Surface Water Quality Ordinance Prepare and adopt a water quality ordinance using water quality standards established in the Drainage Master Plan. The ordinance shall address the physical, biological, and chemical parameters of water quality, include monitoring provided through the MOU with HSU, and shall be updated at least every five years.	Environ-mental Services Department	Year 1 then every 5 years
RC -7	Wetlands Management Plan Prepare a Wetlands Management Plan that includes mapping of all known wetland areas, guidelines for wetlands management, setbacks, restoration goals and objectives, and review and approval requirements for wetland alterations.	Environ-mental Services Dept./Creek Advisory Committee	Year 2
RC -8	Sensitive Habitat Mapping Using the sensitive habitat definition from Policy RC-1d, prepare and regularly update a map of sensitive habitat in the City.	Environ-mental Services Dept.	Year 1
RC -9	Pesticide Ordinance Regularly update the City's Pesticide Ordinance.	Environ-mental Services Dept.	Every 5 years

#	IMPLEMENTATION MEASURE DESCRIPTION	RESPONSIBLE PARTY	TIME FRAME
RC -10	Create Agricultural Advisory Committee This City shall appoint a committee to be an impartial forum for addressing agricultural issues between property owners and agricultural operators. The committee will also be responsible for preparing the agricultural operations ordinance, researching incentives for continued agricultural operations, and advising the Planning Commission on any proposed development that would affect agricultural productivity.	City Council	Year 1
RC -11	Participate in Humboldt Bay Management Plan The City shall designate a representative to attend meetings, review documents, and represent the City's interest during the preparation of the Humboldt Bay Management Plan.	City Council appoints a representative	Year 1
RC -12	Community and Farm Protection Ordinance The Agricultural Advisory Committee shall develop and maintain a Community and Farm Protection Ordinance, which shall provide a foundation for minimizing conflicts, educating the community, and a protocol for mediating unresolved disputes.	Agricultural Advisory Committee	Year 1
RC -13	Biocides and Other Compounds Alternatives The City shall implement a program to foster the reduction in private use of pesticides. This shall include maintaining and making available a current list of alternative, environmentally safe products for controlling unwanted vegetation and pests, growing crops and enhancing production of animal products. The use of substances and compounds which can accumulate to toxic levels is restricted by the City (Pesticide Ordinance).	Environ-mental Services Dept.	Year 1