County of Santa Cruz

COUNTY ADMINISTRATIVE OFFICE

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SUSAN A. MAURIELLO, J.D., COUNTY ADMINISTRATIVE OFFICER

September 15, 1999

Agenda: September 21,1999

Board of Supervisors County of Santa Cruz 701 Ocean Street Santa Cruz, California 95060

PUBLIC HEARING TO CONSIDER THE MEASURE C "END OF THE DECADE" REPORT

Dear Members of the Board:

On June 8, 1999, your Board reviewed and accepted the 1997-1998 Annual Measure C Report and directed staff to return on this date with the "end of the decade" report. Your Board also directed staff to identify environmental issues that were not an issue ten years ago and to report on measures needed to continue Measure C beyond its expiration date (see Attachment 3 — Minute Order). The purpose of this letter is to transmit the "end of the decade" report and suggested measures for continuing Measure C. The report has been developed through a cooperative effort of all participating departments with the lead role provided by the Planning Department.

Background

Measure C was adopted by the voters of Santa Cruz County on June 5,1990, as an ongoing tenyear program that designates the 1990's as the "Decade of the Environment." Measure C serves as a guide to Santa Cruz County government in carrying out actions to help protect and restore the local environment, and to confront, on a local level, those environmental crises which are global in scope. Chapter 16.90 of the County Code, which provides for implementation of Measure C, directs County government to work toward accomplishing the following:

• To provide for efficient use of renewable energy and recycled resources;

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- To protect biological diversity and human health, through the protection and restoration of the environment;
- To encourage agricultural practices which are protective of the natural environment and human health;
- To promote and encourage economic development strategies in Santa Cruz
 County which are consistent with both environmental protection and restoration,
 and which will help create a local economy based on the use of renewable
 resources;
- To ensure that future growth and development in Santa Cruz County adheres to the natural limits and carrying capacity of the Santa Cruz County environment; and
- To take local actions which can help reverse, reduce, and eliminate practices which are contributing to global environmental crises.

Measure C also established a series of eleven principles and policies to guide local government efforts related to: offshore oil drilling, global warming and renewable energy resources, protection of the ozone layer, forest protection and restoration, greenbelt protection and preservation, recycling, toxic and radioactive materials, endangered species and biological diversity, development of a sustainable local economy, future growth and development, and education and outreach.

In 1991, your Board commissioned a baseline study of the eleven categories to establish current conditions and what programs would be necessary to protect or improve these conditions. Your Board also adopted an implementation plan for the programs identified in the baseline report. Each year, as required by Measure C, staff has prepared a report, for your Board's consideration, updating actions taken to carry-out the implementation plan.

End of the Decade Report

The "end of the decade" report contains two sections: Appendix I — Implementation Plan Status Report; and Appendix II — 1999 Baseline Update.

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Overall, most of the implementation programs have been completed or are ongoing. This decade, County departments have created and implemented a myriad of programs to protect the environment. The main reasons the others have not been implemented can be traced to either the lack of technological solutions (such as recycling certain types of styrofoam) or budgetary and constraints.

The Baseline Update shows that there has been improvement in those areas that are local in nature, such as recycling, where sufficient staffing and funding have been provided. Those areas that are not local, such as global warming, or where sufficient funding and staffing have not been provided, such as resources protection, have shown less improvement or further degradation.

An additional environmental concern was identified in preparation of this report: the reduction in the contribution of groundwater to stream baseflow. A full discussion of this concern is contained at the end of the 1999 Baseline Update (Appendix II).

Continuation of Measure C

The provisions of Measure C may be continued either through the legislative power of your Board or that of the registered voters. Your Board may choose to enact a new ordinance modeled on Measure C's provisions, or your Board may simply amend the existing Measure C provisions governing the term of the ordinance.

Your Board may also place the matter before the voters as a new ballot measure.

Conclusion and Recommendation

The adoption of Chapter 16.90 of the County Code and the preparation of, and public hearings on, the yearly and, now, decade-long accomplishments of County government in meeting the mandates of Measure C has met the mandate of the voters.

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It is, therefore, RECOMMENDED that your Board accept and file the Measure C "end of the decade" report and direct departments to follow through on the programs as provided in the attached material.

Very truly yours,

SUSAN A. MAURIELLO County Administrative Officer

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Attachments: 1. Appendix I — Implementation Plan Status Report

2. Appendix II — 1999 Baseline Update

3. Minute Order of June 8, 1999

cc: Each Department Head

INTRODUCTION

Measure C set forth eleven policy directives. In 1991, your Board adopted implementation programs to carry out the intent of these policy directives. Each year, staff has reported to you its progress in meeting these implementation measures. A summary of the progress made in each category for the decade follows. The original 1991 explanation of each program and responsible departments is shown in italics and is followed by the summary. Additional programs have been added since 1991 and are also summarized.

1. OFFSHORE OIL DRILLING

1a. Improved Oil Spill Contingency Planning: Staff has recently drafted language for the Central Coast OCS Regional Studies Program Coordinators' scope of work. During fiscal year 1991-92 the consultant will develop model county oil spill emergency response and resource damage assessment plans for the central coast counties involved in the program. This work is being funded through a previously received OCS Block Grant. Planning Department staff will begin to customize these reports based on specific resources and conditions found within Santa Cruz County during the coming fiscal year, Initiation of this work will be dependent on the extension of the existing limited-term Resource Planner position within the Planning Department. (Emeraency Services and Planning Departments)

Santa Cruz County staff continues to be an active participant in the ongoing United States Coast Guard Area Oil Spill Contingency Planning process. County participation in the unified command, which would be formed in the event of a significant spill, is conditioned upon participation in the federal area planning process as stated in state and federal oil spill regulation. Through this process, the Santa Cruz/Monterey Counties Oil Spill Contingency Plan, originally completed in 1994, is continually updated to remain consistent with state and federal plans. The California Department of Fish and Game's Office of Spill Prevention and Response provides financial support to facilitate ongoing local government involvement. Grants up to \$5,000 per participating local government have been made available to reimburse actual staff costs related to participation in the area committee meetings, training and exercises. Santa Cruz County has received this grant funding yearly for the past six years.

A significant accomplishment in 1998 was the completion of a comprehensive plan to address ongoing threats to the Sanctuary from potential spills of oil and other hazardous materials from commercial vessel traffic. With approximately 4,000 large vessels crossing the Sanctuary each year, preventing spills is recognized as a key issue. Plan recommendations include modifying the port approaches to the San Francisco Bay and

the Santa Barbara Channel, moving container ships and bulk product carriers approximately ten miles further offshore, better organizing traffic patterns for all types of large vessels and strengthening vessel monitoring and education. The proposal was unanimously approved by the Navigation Safety Advisory Panel to the Coast Guard. Portions of the plans are being implemented in 1999, while other strategies requiring international approval will be presented to the International Maritime Organization of the United Nations.

1b. Marine Resource Atlas: Train staff in the use of the recently acquired Computer Aided Mapping and Resource Information System (CAMRIS) to improve our ability to assess the possible impacts of offshore oil development and provide resource-related information to emergency personnel in the event of an oil spill. (Planning Department)

The "Atlas of Living Marine Resources for Central California," published in 1990, is a collection of population distribution and density maps for the many species of marine mammals and seabirds found in the Monterey Bay and off the coast of Central California. The maps were generated using computer software known as CAMRIS (Computer Aided Mapping and Resource Information System), which at the time was considered a state-of-the-art PC-based, user friendly program for creating base maps and overlays.

CAMRIS was originally acquired for use in assessing possible impacts of offshore oil development and to provide resource-related information to emergency personnel in the event of an oil spill. However, its most notable use occurred during the review of boundary alternatives for the Monterey Bay National Marine Sanctuary. CAMRIS maps of the five boundary alternatives provided the needed justification for selection of the largest boundary proposed, as it provided the habitat and setting for a distinctive assortment of living marine resources.

1c. Marine Resource Atlas Update Clearing House: Develop a working agreement with a local educational institution or other interested agency to update CAMRIS as new data on local marine resources become available. On March 6, 1991 the OCS Regional Studies Program Board of Control adopted a proposal to retain a consultant for the purpose of updating the Marine Resource Atlas. The \$10,000 allocatedfor this work was drawn from the programs' interest earned account and will not require a contribution from any of the participating counties during the 1991-92 fiscal year. (Planning Department)

Originally, it was envisioned that a working agreement would be developed with a local educational institution or other interested agency to update CAMRIS as new data on local marine resources became available. However, the unforeseen rapid technological advancements in personal computing quickly brought about the obsolescence of the



CAMRIS software and hardware.

Regardless, documentation of the County's local marine resources will continue. In 1998, the Moss Landing Marine Laboratories and the University of California Santa Cruz continued a third year of ship-board surveys (partially funded by the Monterey Bay National Marine Sanctuary) to document marine mammal and seabird occurrences.

1d. Inter-Agency Monterey Bay Sanctuary Task Force: this program was added in 1994.

On May 6,1997, the Board of Supervisors approved a plan that recommended strategies and activities that were designed to maximize the economic and education opportunities that the designation of Monterey Bay as a National Marine Sanctuary (MBNMS) brings to the Santa Cruz area. The plan represented the work of the County's Sanctuary Inter-Agency Task Force and many other participants. Priority strategies included the following: Sanctuary Scenic Trail; Sanctuary Seal Conservation Program; and Sanctuary-Oriented Visitor and Marine Discovery Center. An overview of the progress achieved on these priority strategies follows.

Sanctuary Scenic Trail

The Sanctuary Inter-Agency Task Force appointed a Sanctuary Scenic Trail Subcommittee to study the development of a multi-use recreational and scenic coastal trail along public access areas and pedestrian routes. Such a trail would be designed to provide linkages between and access to parks, public places, recreational areas, coastal access areas, and Sanctuary view points (with a focus on marine-related activities). The Task Force applied for and received assistance from the National Parks Service's Rivers, Trails and Conservation Assistance Program for technical, trail-planning assistance. It is envisioned that the Sanctuary Scenic Trail will ultimately extend along the coast, from the San Mateo to the Monterey County boundary lines.

Though a \$35,000 grant award from the California Resources Agency, the Task Force has contracted with a nationally-known consultant, Leslie Stone Associates ("LSA"), to develop and design an Interpretive and Wayfinding Program along a core area of the Sanctuary Scenic Trail. LSA has provided the Task Force with recommendations for the design of directional signage, trailscape features, and a trail logo. The next phase of the program will include the construction of one or more appropriately-designed, interpretative displays located along key areas of the trail; it is anticipated that the displays will be installed in the late Fall of 1999.

The Cities of Santa Cruz and Capitola, the County, the Port District, California State Parks, and the Land Trust of Santa Cruz County have received a grant in the amount of



\$100,000 from the 1999/00 Transportation Enhancement Activities Program. These funds will be used to develop various interpretative sites within the identified core area of the project, which extends from Wilder Ranch State Park southward to Seacliff State Beach. The Sanctuary Scenic Trail Subcommittee continues to research additional grant programs for implementation of the Interpretive and Wayfinding Program.

Sanctuary Seal Conservation Program

Recent activities have focused on determining whether the creation of a Seal Program to provide Sanctuary education and training to local businesses is an appropriate way to encourage conservation and protection of the Sanctuary and to involve businesses in activities that enhance our community's position as the gateway to the Monterey Bay National Marine Sanctuary.

A marketing, advertising, and design firm was hired to develop a survey instrument and conduct focus groups with local businesses to determine how businesses could benefit from and participate in such a program. The Task Force is in the process of reviewing the consultant's comments and recommendations concerning how best to proceed with this program. Staff will return to your Board with any updates or recommendations as needed.

Sanctuary-Oriented Marine Discovery Center

The Task Force is developing an appropriate concept for a Sanctuary-Oriented Discovery Center. On behalf of the Task Force, the County applied for and received a grant from the Federal Economic Development Administration. On November 14, 1997, the County then contracted with Gar-Lin Productions to develop a Discovery Center concept and evaluate the financial feasibility of locating such a facility near the waterfront.

In April 1998, Gar-Lin Productions presented their recommendations to community leaders, interested citizens, and Task Force members. It was recommended that a Marine Discovery Center be established somewhere in the mid-county area, preferably near the Boardwalk or harbor areas. The Center would serve as a visitor center, directing people to other areas of interest related to the Sanctuary. One unique aspect of the Marine Discovery Center is that it would be a "virtual reality" experience, where people would move through the community, via computer imaging, to experience all of the resources and attributes that the county has to offer, including an experience of the underwater world.

If approved, the Task Force would next examine potential sites and seek funds to conduct a site feasibility study to determine the best location for a Marine Discovery Center.

Additional funds would have to be identified for the development of this facility. The Task Force will work with the City of Santa Cruz, the Santa Cruz City Museum of Natural History, the Santa Cruz County Conference and Visitors Council, and other agencies and organizations to explore possible collaborative opportunities.

1e. Monterey Bay National Marine Sanctuary Water Quality Protection Program: this program was added in 1995.

Integral to the effort to protect and enhance water quality in the Monterey Bay National Marine Sanctuary is the development of an urban runoff program in compliance with Federal National Pollution Discharge Elimination System (NPDES) regulations. Public Works' Drainage Engineering Program is adding a Resource Planner to its staff whose responsibilities will include formulation and application of best management practices leading to better control or elimination of sources of pollution of storm water reaching the County's stream ways, rivers and the Monterey Bay. These urban runoff and watershed management practices will be incorporated into the body of the County's Phase II NPDES permit pursuant to requirements of the federal Clean Water Act. Through public outreach, in-house training, preparation and review of improvement plans, coordination with environmental regulatory agencies (Fish & Game, Regional Water Quality Control Board, National Marine Fisheries, Fish & Wildlife Service, Corps of Engineers, etc.), the new staff member will be integral to Public Work's fulfillment of its role in preservation and enhancement of habitat in the County's rivers and streams and the Monterey Bay. This is also in keeping with County Code Section 16.90's stated goal of protection of biological diversity and human health through protection and restoration of the environment.

2. GLOBAL WARMING AND RENEWABLE ENERGY SOURCES

2a. Jobs/Housing/Transportation Analysis: A regionwide jobs/housing/transportation balance analysis would improve the ability to coordinate transportation planning and land use planning in Santa Cruz County. Such an analysis would be useful for the County General Plan Update. The SCCRTC's 1990 Regional Transportation Plan recommends that a regionwide job/housing/transportation analysis be done for the 1992 RTP. (SCCRTC and Planning Department)

In 1996, in the context of its update of the Congestion Management Program, the Regional Transportation Commission conducted a review of the literature regarding Jobs/Housing/Transportation Analysis issues. This analysis was presented to Commissioners for their consideration and discussion as it relates to land use planning decisions in their own jurisdictions. In 1998, the Association of Monterey Bay Area Governments (AMBAG) received a grant from Caltrans to perform a more



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comprehensive "Jobs/Housing Balance" analysis for the entire Monterey Bay region. SCCRTC provided input on the scope of this analysis.

2b. Fixed Guideway Development: The Santa Cruz County Regional Transportation Commission (SCCRTC)s coordinating efforts to reach a consensus on fixed guideway implementation in Santa Cruz County. The County will participate in a joint study session scheduledfor spring of 1991. Funding from local jurisdictions, including the County, would be needed if the next phase of study is pursued. The General Plan update will address fixed guideway development, if it is pursued. (SCCRTC and Planning Department)

During the 1990's the Regional Transportation Commission conducted numerous studies on fixed guideway implementation in Santa Cruz County, with the primary focus being the Major Transportation Investment Study of the Watsonville Junction-downtown Santa Cruz-UCSC Corridor. The final report on this study was presented to the Commission in the fall of 1998. The study examined eight transportation alternatives for long-term development of the Highway I/Santa Cruz Branch Line corridor, including rail, bus transit, and highway improvements. Public information and input processes including open houses, informational mailings, community workshops, demonstration train events, and comment cards were conducted throughout the decade.

The Regional Transportation Commission also completed the Around the Bay Rail Study, prepared in cooperation with the Transportation Agency for Monterey County (TAMC), to investigate options for rail passenger transportation between the two counties. The Commission also works with the Coast Rail Coordinating Council and TAMC on issues such as advocating for a stop in Pajaro for existing and any future rail passenger service using that line.

Currently the Regional Transportation Commission is conducting public hearings to assist in the development of a program of short term and long term transportation projects which address all modes of transportation. The results of these deliberations will be included in the upcoming Regional Transportation Plan.

2c. Improve the County's Bicycle Facilities: Develop and implement short and long-term strategies to improve the County bikeway network including increased funding. This will be an ongoing program. (Planning and Public Works Departments)

The County's Bike Plan, prepared by the Department of Public Works, was adopted by the Board of Supervisors in January 1998. This Plan brings together all of the goals, objectives, policies and programs from the County General Plan, Santa Cruz Regional Transportation Plan and the Santa Cruz County Congestion Management Plan. It



includes an analysis of the patterns of bicycle use in the County (historically and currently), a listing of current and proposed bikeway projects (including design, construction and maintenance), a discussion of support and other transportation facilities (bicycle parking, Park-and-Ride Lots, transit facilities, vanpools, rail alternatives, etc.), a discussion of safety/education programs, and a review of costs and funding for future construction of bike lanes and other facilities. All new and reconstructed County roadways include provision for bikeways as delineated in the Bike Plan.

The County Bike Plan is the basis for the development of all bicycle facilities. Public Works reviews all development applications, prior to the determination of application completeness, to assess the need for bicycle facilities, such as bike lanes, bicycle parking, bike lockers, etc. These requirements are routinely required as conditions of approval for large projects.

Public Works' primary goal in the establishment of bike lanes throughout the County is to provide a safe and convenient alternative mode of travel between places of employment, schools, recreation facilities and within commercial districts. These programs and projects, while not always evident as primarily bike lane installation projects are consistently a portion of Public Works projects, in concert with curb and sidewalk installations, asphalt pavement improvements (overlays) or with any storm or general repair project.

In the first half of the 1990s, Public Works primarily focused upon individual bike lane improvement projects. Major projects were developed along San Andreas Road which is one portion of the bicentennial bike lane between Santa Cruz and Monterey Counties. Also improvements were made between UC Santa Cruz and the City of Santa Cruz, and along Soquel Drive, Freedom Boulevard and Green Valley Road. These bike lane installations, in conjunction with other projects are now valued by both commuters and recreational cyclists. Spot installations were also made in Aptos and along many County arterials.

After 1995, Public Works' primary focus was on its need to repair the roadway damage that was a result of four major storms which occurred each year from 1995 to 1998. This major repair did not entirely stop installation progress as bike lane improvements were included with all new traffic signal installation. In addition, when producing storm repair projects, additional width to the repaired roadway was added to accommodate any future bike lane installations. It is estimated that in the last five years, Public Works has installed approximately 12,000 lineal feet of bike lanes as part of signal and storm projects County wide.

Public Works has developed approximately 42,000 lineal feet of new or reconditioned



bike lanes. The Redevelopment Agency has added approximately 53,430 lineal feet of bike lanes within the Live Oak and Soquel areas. In all, approximately 100,000 lineal feet (18.9 miles) of new or upgraded bike lanes have been produced this decade.

At County facilities, bicycle storage lockers and bicycle racks were purchased, repaired, and upgraded and were made available to employees at all locations. At the Governmental Center, a grant was secured to fund construction of a gated enclosure to provide additional secure bicycle parking.

2d. Improve Bus Transit: Develop transit services which attract choice riders and bus pullouts and shelters on transit routes. Consider sources such as Redevelopment Funds and developer fees for this ongoing program. (SCMTD)

During the 1990's the Santa Cruz Metropolitan Transit District (SCMTD) improved transit services substantially. In 1990, the system served 6,759,000 fixed route passengers. By 1998, this number increased to 7,720,000 passengers. SCMTD routes cover more than 413 directional miles. In FY 1997/98, Metro operated 39 weekday and 26 weekend routes, which covered more than 2.7 million miles. Santa Cruz Metro increased service in the busy Santa Cruz to Watsonville corridor and opened the Scotts Valley Transit Center Park and Ride Lot serving the popular Highway 17 express in 1998. During the past decade, Metro has significantly expanded paratransit service and provided Internet information to the public.

Plans to consolidate the District's maintenance/operations/administration facilities are proceeding. The consolidation project will allow the District to reduce its operating costs and improve its overall cost effectiveness. Work continues toward the purchase of new buses and rehabilitation of buses, included the purchase of cleaner fuel buses.

The Santa Cruz Area Transportation Management Association is currently working with the Metro to develop a pilot program for Santa Cruz Area Employers to increase the number of choice riders. Additionally, numerous road projects scheduled on major arterials throughout the county will increase the number of bus pullouts and shelters on transit routes. The Regional Transportation Commission is working with Metro and the Valley Transportation Authority in Santa Clara County on the Highway 17 Transportation Study which is looking at options to improve the successful Highway 17 transit service.

2e. Improve Pedestrian Facilities: One of the primary goals of the Redevelopment Agency is to increase the safety of pedestrians by implementing the primary pedestrian plan system of sidewalks on all main arterial and collector streets as well as to and from schools, parks, and commercial areas. Agency efforts are also geared to improving the



convenience of foot traffic through such projects as the pedestrian/bicycle bridge which crosses Soquel Creek at the East Walnut and Main Street intersection. The bridge provides a second access to Soquel Elementary School as well as a connection between neighborhoods to the east of Soquel Creek and Soquel Village. (Redevelopment Agency, Planning and Public Works Departments)

One of the goals of the Public Works Department is to increase the safety of pedestrians by planning, constructing and upgrading sidewalks on many of the County roads in both commercial and residential areas. During the 1990's, Public Works installed approximately 9500 lineal feet of sidewalks. In addition, an uncalculated amount of sidewalks has been constructed by private developers.

One of the primary goals of the Redevelopment Agency has been to work with the Department of Public Works to increase the safety of pedestrians by planning and constructing a system of sidewalks on all major roadways and to schools, parks and commercial areas in the communities of Live Oak and Soquel. Over the past decade, over 52,000 linear feet of sidewalks have been constructed on streets including 17th Avenue, East Cliff Drive, Portola Drive, Porter Street, and Soquel Drive. This amount, when combined with the figures from the Department of Public Works, means that the main county areas, including Live Oak and Soquel, have received approximately 63,000 lineal feet (11.9 miles) of new sidewalk facilities in this decade.

Additionally, in order to improve the convenience of foot traffic, pedestrian bridges were constructed at Upper Soquel Creek and at Jose Avenue Park to improve access to schools and parks and to provide a connection between neighborhoods.

The Public Works Department is working to increase accessibility for the elderly and disabled to all public facilities. Accordingly, Public Works has planned and installed 112 access ramps. These have been installed on existing sidewalks in all major commercial areas of the county including the Aptos, Soquel, Live Oak and Freedom areas.

2f. Improve Park and Ride Lot Facilities: The Santa Cruz County Regional Transportation Commission is currently identifying park and ride lot needs around the county. Limited funding to improve publicly owned lands is available from Caltrans, but more funding is needed. The County will cooperate with the Regional Transportation Commission's efforts, especially by designating park and ride lot sites in the General Plan. (SCCRTC, County, Cities, Caltrans)

There are currently nine park and ride lots in the county, which are operated under various contracts among property owners, Caltrans, and the transit district. During the



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1990's, SCCRTC received a grant to help construct two lots and allow use of three other existing, privately owned lots. Two contract park and ride lots were developed in FY 1998-99, one at Messiah Lutheran Church on High Street and the other at Santa Cruz Neighborhood Church on Morrissey Boulevard. Identification of additional park and ride lot locations is an ongoing task. SCCRTC is currently working with the City of Santa Cruz on development of a new park and ride lot within the city limits.

2g. Transportation Control Measures (TCM): Recent State legislation requires Air Districts in non-attainment areas to control vehicle emissions via Transportation Control Measures (TCM). State legislation for Congestion Management Plan (CMP) development mandates a trip reduction element. It will be necessary to coordinate evolving local CMP and air quality requirements into a cohesive and effective countywide traffic management program. The County's cooperation in the development and implementation of TCMs and CMP measures is also necessary. The County will be cooperating with the Monterey Bay Unified Air Pollution Control District during the 1991-92 fiscal year in the implementation of the TCMs to meet State air quality regulations, and with the Santa Cruz County Regional Transportation Commission in the implementation of transportation demand measures to meet state CMP requirements, Significant staff resources will be required. (SCCRTC, MBUAPCD, County, Cities)

The Santa Cruz County Regional Transportation Commission implements the region's ridesharing program which promotes the use of alternative forms of transportation for commuting purposes, including carpooling, vanpooling, bicycling, walking, telecommuting, and transit use. The Commission's Vanpool Incentive Program provides financial assistance to commuters who start new vanpools. The Commission is a regular sponsor of the annual Bike-to-Work Day event and Rideshare Week, which are coordinated through Commute Solutions.

The Commission's Bikes Secure bike parking subsidy program provides high quality bike parking at commercial, employer, school, and recreational sites throughout the County. The Commission assisted four of the five local jurisdictions in completing Bike Plans for their areas in FY 1998/99. The Commission's ongoing bike hazards reporting system helped identify and eliminate problems in bike lanes. The Commission's Bicycle Committee continues to work with Caltrans and local jurisdictions to improve bike facilities throughout the County. The SCCRTC also updates and distributes a Bikeways Map for Santa Cruz County.

The Commission continued to set priorities for federal and state funding allocations for local congestion relieving projects, including roadway capacity enhancements, transit improvements, bike and pedestrian facilities, and regional planning programs to improve air quality and reduce congestion on the local transportation network. The Commission



allocated funds for the federal Surface Transportation Program/Congestion Mitigation and Air Quality program (STP/CMAQ) and the State Transportation Improvement Program (STIP) and the Transportation Enhancement Activity (TEA) program over the past year.

In addition, the Commission continued to review the environmental documents and draft plans countywide for consistency with programs and policies of the Regional Transportation Plan and the Santa Cruz County Congestion Management Program.

During the 1990's, the Santa Cruz Area and Pajaro Valley Transportation Management Associations (TMAs), made up of groups of public and private employers proactive in developing commute management programs for their work sites and for the TMA areas, were formed.

The County of Santa Cruz Department of Public Works is continuously attempting to procure state, federal, and air quality grant funds to build additions to the existing transportation network which promotes alternative transportation use. These additions include bus pull-outs, bike lanes, pedestrian facilities, and roadway capacity enhancements throughout the unincorporated area of Santa Cruz County. Improvements are constructed using local match funds with state and federal monies, and through development related permit conditions and fees. Maintenance of these public facilities is also the responsibility of the Department of Public Works.

The Department of Public Works provides yearly monitoring of the Congestion Management Plan (CMP) intersections and conformance with Level of Service standards. Development projects are conditioned to incorporate alternative transportation programs and improvements that mitigate project impacts at these intersections such as secure bike parking, on-site showers for employees, free bus passes for employees, and car pool parking.

2h. Project Permit Conditions to Mitigate Transportation Impacts: Include as project conditions for major developments, funding, right-of-way reservation and/or development offacilities, services or programs for alternative transportation modes to mitigate all of the project's transportation impacts. Expand the use of transportation fees and assessment districts to fund needed transportation improvements and programs for alternative transportation modes. Incorporation of this program into the current permit process will require a one time commitment of extra staff resources. (Planning and Public Works Departments)

Improvement of transportation facilities, including roadways, curbs and gutters, bike lanes, and sidewalks, are routinely assessed as a part of every discretionary project. This

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includes assessing the impacts of the proposed development on local, community and regional roadways under the California Environmental Quality Act (CEQA) review, as required by the Congestion Management Plan. Where Levels of Service will be adversely affected by a project, mitigation measures are developed and/or project modification/denial is considered. All major development projects are required to construct frontage improvements and to contribute to Transportation Improvement and Roadside Improvement Funds, as well as to meet the requirements of the County's Trip Reduction Ordinance, when applicable.

At this time, the Major Transportation Investment Study (MTIS) has not been completed. No County staff time has been allocated towards developing new or revised financing strategies for the development of alternative transportation systems.

2i. County Commute Alternative Program/TRiP: It is recommended that the County's existing program be expanded significantly to promote alternative transportation modes to reduce use of single occupant vehicles by County employees. This program could include a policy promoting flextime, a telecommuting program, enhancement of the free bus pass program, improvements to bike parking, andparking management strategies including fees for parking and free designated car pool parking spaces. This program will involve a long-term commitment for staffing and interdepartmental coordination with an extra need for staff work in the program development and initiation stages over the next two years. A proposal to expand the County's existing Trip Reduction Program (TriP) to promote alternative transportation modes to reduce the use of single occupant vehicles by County employees is under development. Implementation of this program will require augmentation of existing resources, and has been obtained through the 1991-92 budget request. (CAO, General Services and Personnel Departments)

The County is continuing the Trip Reduction Program that encourages and supports alternative commute methods for employees. This program provides free bus passes for Governmental Center employees who commute by bus, an emergency ride home program, and free or reduced cost car pool spaces for car pooling employees.

2j. **Tune-ups and Inspections:** Conduct smog inspections and tune-ups for fleet vehicles biennially rather that on an annual basis. Such an effort could be mounted immediately, but will require additional staff resources. (General Services)

Seven year/seventy thousand mile emission warrantees, mandatory biennial smog inspections, one hundred thousand mile tune-up recommendations and computerized on-board emission and drive-ability diagnostics have greatly reduced the need for tune-up preventative maintenance. At the Service Center, current preventative maintenance inspections cover all factory recommended routine service, as well as biennial smog

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inspections. The addition of the Automotive Service Attendant position in FY 1998-99 and the installation of a Fleet Management System has helped to expand the preventative maintenance program which includes and emphasizes fuel and emission economy.

2k. Tire Pressure Maintenance: Maintenance of proper tire pressure has been shown to improve mileage by one to two percent. Provide tire gauges at the gas pump island with tire pressure instructions mounted on the dash board of each vehicle to encourage proper inflation. This action could be taken immediately. (General Services)

The installation of tire pressure recommendation decals and tire gauges in all General Services vehicles has been ongoing since the beginning of Measure C. Each decal instructs drivers to check for proper tire inflation levels weekly. The benefit is not only safety, but peak fuel economy and extended tire life. Fleet Operations has relied on industry experience and testimony to conclude that the program has been beneficial and should be continued.

21. County Employee Driving Habits: The Personnel Department will incorporate a driver training component on fuel conservation techniques in the new employee orientation process. It is estimated that such a program will cost approximately \$7.00 per employee for printed training materials. These costs will be included in the 1991-92 fiscal year budget requests. (Personnel Department)

A two hour driver training program for new employees was implemented in FY 1991-

2m. Mileage Standards and Vehicle Retirement: Develop minimum mileage standards for the bid specifications used to purchase new County vehicles and increase the mileage threshold used to retire older vehicles. These actions could improve environmental conditions, but may also result in increased capital and maintenance costs. A report on this issue will be presented to the Board of Supervisors on or before their first meeting in January, 1992. (General Services)

Vehicle emissions and fuel economy continue to be a criteria for all new vehicle purchases. In FY 1999-00, Fleet Operations is scheduled to replace nearly every pre-1992 automobile and pre-1991 pickup truck or van. These vehicles account for approximately 15% of the General Services fleet. With changes made in automotive technology, replacing these vehicles with more efficient, cleaner burning vehicles will significantly benefit fuel use and emission reductions.

92.

2n. Alternative Fuels: Continue to experiment with and evaluate alternative fuel use in the County vehicles. Upon completion of this analysis, recommended purchase of alternative fuel vehicles to the Board of Supervisors. This evaluation may require a one or two year period to complete. (General Services)

The original six methanol vehicles of the baseline study have been replaced by four flexible fuel (methanol/gas) vehicles: two 1992 Chevrolet Luminas and two 1997 Ford Tauruses. Since 1991, the California Energy Commission's alternative fuel emphasis has changed from methanol to Compressed Natural Gas (CNG) and, in 1993, Fleet Operations converted twenty-one pickup trucks to dual fuel (CNG/gasoline) capabilities. The installation of natural gas compressing and dispensing equipment at the Government Center serves the facility as well as the alternative fueled vehicles of the City of Santa Cruz and Odwalla Juices. A County-secured grant has provided for construction of a CNG facility in Watsonville. In July 1999, the County's first dedicated CNG vehicle — a 1999 Dodge Van rated as Ultra Low Emission Vehicle (ULEV) — was purchased for the Transportation Commission. Currently, Fleet Operations is participating in California Environmental Protection Agency's Alternative Fuel Vehicle (AFV) demonstration program. The use of a Honda Hybrid (electric/gasoline) sedan will be evaluated for potential Fleet use in the near future.

The Department of Public Works and Brown Vence and Associates of San Francisco have created a partnership for development of a landfill gas electrical generation facility at the County's Buena Vista Landfill. Development of this project is in its last phase prior to facility construction. Once completed, the facility is expected to produce 2 megawatts of electricity for resale to PG&E or another power sales broker, enough electricity for 1,200 homes. As this type of energy is considered "green," Public Works and General Services are working with PG&E Energy Services Division on a proposed service package that would include sale of the electricity from the landfill gas electrical generation facility and partial resale of this green electricity back to the County for our use in buildings and public infrastructures. Also included in this package will be funding for new energy conservation programs at County facilities. Construction of these facilities is scheduled to begin in Winter 1999/2000.

20. Energy Management System: Re-establish the original efficiency of the Ocean and Emeline Street facilities Energy Management Systems (EMS) by reverting to the control hours in place during the time of system installation and expand use of the EMS to other County facilities. This action would require a significant staff effort to accomplish. (General Services)

Facilities with the highest occupant density (the Governmental Center and 1400 Emeline) have full Energy Management Systems (EMS). 1080 Emeline has timer controlled

heater and boiler operation. By controlling start and stop times and establishing set points, an EMS reduces energy consumption.

All County facilities' Energy Management Systems have been checked to ensure they will not be effected by Y2K issues.

2p. Lighting and Heating, Ventilation, Air Conditioning (HVAC) Systems Conversions: Replace lights in County owned or operatedfacilities with high efficiency tubes and ballasts. In addition, replace older, inefficient HVAC systems in County facilities with more energy efficient equipment. These actions would require a significant commitment of staff and financial resources to complete. (General Services)

Lighting conversions have been completed in all major County facilities. Domestic water heaters, boilers and HVAC chillers have been downsized at a number of facilities, including the Governmental Center. Economizers and lock-outs to reduce operations during mild weather have been installed on several systems, including the Water Street Detention facility and the Graham Hill Probation facility. HVAC efficiency modifications and energy efficient heating systems have been installed at several Emeline Campus buildings.

2q. Employee Bicycle Pool: this program was added in 1992.

This program was added in 1992 and is ongoing.

2r. Street Tree Program: this program was added in 1993.

The Redevelopment Agency initiated a street tree program in the communities of Live Oak and Soquel based on the goals and objectives of the Santa Cruz County Urban Forestry Master Plan which was developed by the Agency. The intent of the program has been to help create an "urban forest" and reap the environmental benefits provided by additional trees in these communities and to mitigate the visual impacts resulting from the construction of new road improvements. Since the inception of the program in 1993, approximately 791 street trees have been planted on primary streets which serve large volumes of traffic. Two examples of these tree planting projects include Soquel Drive, from East Walnut Street to Porter Gulch Road, in Soquel and 17th Avenue, from Brommer Street to Portola Drive, in Live Oak. These trees are planted and maintained with Redevelopment Agency funds. Another aspect of the street tree program involves the volunteer efforts of residents on smaller neighborhood streets. Since the beginning of the program, 240 street trees have been purchased by the Agency and planted and maintained by residents who choose to participate in the program. Two examples of volunteer tree planting occurred on Rodriguez Street, from 7th Avenue to Chanticleer

Avenue, and on Felt Street, from 17th Avenue to 24th Avenue in Live Oak.

Besides these tree planting efforts, the Redevelopment Agency has also planted over 100 trees in park and recreational facilities that the Agency has designed and constructed, including the Simpkins Family Swim Center and Twin Lakes Park. Additionally, almost 80 trees have been planted as part of several major parking lot construction projects that the Redevelopment Agency has funded.

In 1996, Public Works applied for and received a \$34,000 grant from the Small Business Administration for roadside landscaping around the Buena Vista Landfill. The landscaping plan called for planting over 300 native trees and shrubs along Buena Vista Drive and Harkins Slough Road adjacent to the landfill. This landscaping plan has two beneficial purposes: 1) provide a dense tree line to improve the visual impacts from the landfill, and 2) create an added windbreak to further control wind blown litter from leaving the site.

The tree planting was completed in Fall 1996 and has proven to be a great success. The trees are maturing at a healthy rate and some areas of the landfill are already hidden by the expanding tree line. Public Works continues to in-fill new trees each year to improve specific areas and further naturalize the roadside landscape.

2s. Reduction in Emissions: this program was added in 1995

The Department of Public Works received approval of \$141,000 in grant funding from the Monterey Bay Unified Air Pollution Control District (MBUAPCD) for "Clean Air Upgrades" for seven land fill off-road heavy equipment engines. These funds were used for emission reduction modifications to the County's heavy equipment fleet at the Buena Vista Landfill.

3. PROTECTION OF THE OZONE LAYER

3a. Fire Extinguishers: Replace County owned fire extinguishers with models which do not use ozone depleting compounds. This action could be taken with existing staff resources but would require an additional commitment of funds to accomplish. (General Services)

This program was deferred due to budgetary constraints.

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3b. **Heating and Ventilation and Air Conditioning (HVAC) Systems:** Replace existing HVAC systems in County facilities with those using non-ozone depleting compounds. This effort would require an additional commitment of funds to accomplish. (General Services)

The Governmental Center system has purifier purge pump containment. All other County HVAC systems have been upgraded, modified or replaced so that R-12 chlorofluorocarbon (CFC) is no longer used.

3c. Freon Recovery: this program was added in 1992.

In 1992, the County Board of Supervisors directed the Department of Public Works to implement a freon recovery program for appliances recycled at county solid waste facilities. Freon-containing appliances (FCA) are prohibited from disposal in County landfills. All FCA's are directed to the County's contracted recycling drop-off centers located at the Buena Vista Landfill and Ben Lomond Transfer Station. The FCA units are segregated by the operator and all freon is extracted with state approved equipment prior to co-mingling them with other scrap metal destined for market. Operators of both recycling drop-off centers are required to possess state certification as Freon Extraction Technicians. Public Works continues to fund this program through landfill tipping fees. The program currently collects and decommissions approximately 3,000-3,500 FCA units each year (i.e. refrigerators and air conditioners). Public Works also funded the purchase of two new freon extraction units in 1998 to improve program efficiency and recovery rates.

4. FOREST PROTECTION AND RESTORATION

4a. Forest Practice Study: Conduct a study to determine whether the silvicultural practices allowed under the State Forest Practice Rules result in management practices which are sustainable in perpetuity. This effort will likely require three or more years, including procurement of an outside source offunding, to accomplish. (Planning Department)

The Study has not been conducted due to budgetary limitations.

4b. Old Growth Timber: Sponsor special forest practice rules or legislation to protect old growth timber remaining on private lands within Santa Cruz County. Such legislation or regulatory changes will require two or more years to develop and support through the approval process. (Planning Department)

The County General Plan/Local Coastal Program Land Use Plan includes "ancient forests" as a protected resource in the sensitive habitats listing (Section 5.1.2(b) and

Chapter 16.32 - Sensitive Habitat Protection). All development must be located and operated so as to not adversely affect the resource. The County has sponsored special Forest Practice Rules to protect old growth timber. These Rules changes were denied by the Board of Forestry in 1998, but have been re-submitted in 1999.

4c. Ordinance Enforcement: Carry out the tasks included in the grant application submitted to the State Water Resources Control Board to strengthen the enforcement of County environmental protection ordinances. Work to be performed will include preparation of an enforcement procedures manual, creation of a computer tracking system, enforcement of the aforementioned ordinances, evaluation of the need for ordinance amendments, and initiation of a public outreach campaign, (Planning Department)

Grant funded tasks were successfully completed in 1995. In addition, a number of other administrative improvements have been implemented including the establishment of an administrative hearing officer process, increased use of the district attorney staff assigned to prosecute environmental violations, development of a "second generation" computer tracking system, and the increase in staff of the Code Compliance Section to 7.0 FTE.

4d. Significant Tree Ordinance: Expand the Significant Tree Ordinance, which currently applies solely to the Coastal Zone, to cover the entire County. Such an expansion, which will require one year to implement, will increase the overall level of protection afforded to selected tree species within the County. (Planning Department)

In January of 1991, the Board of Supervisors conceptually approved an amendment to the Significant Tree Protection Ordinance to expand its coverage from the Coastal Zone to the entire County. During Round One of that year, the matter was deferred due to concerns about some of the effects of expanding the ordinance county-wide, including whether existing staffing levels within the Planning Department would be adequate to accommodate the additional work.

Concerning tree protection, in 1997, the County Board of Supervisors appointed a Public Works representative to the State's Pine Pitch Canker Task Force. Pine Pitch Canker (PPC) is a fungal disease that has decimated the native Monterey Pine forests along the California central coast. This disease is also known to strike other types of native pines, though less frequently. The State has formed a Task Force made up of scientists, politicians, concerned citizens, and government representatives. The Task Force's goal is to find ways to manage and control the spread of this disease (no known cure exists). Public Works' role in the Task Force has been to establish waste management practices for diseased trees being removed and to disseminate public education information in Santa Cruz County. Information on management and disease control is distributed at the County solid waste facilities and mailings have been sent to local tree trimmers,



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landscapers and gardeners. All pine-based materials received through the woodwaste diversion programs at the County solid waste facilities are segregated and processed as biomass fuel to ensure total destruction of the pathogen. Incineration is currently the only economically acceptable method of disease control for diseased trees. Other methods are being evaluated by the Task Force such as use of fungicides or long term drying on logs destined for out-of-County mills.

The primary focus of all these disease control methods is to prevent this fungus from spreading into other pines forests in northern California or the Sierra. The County's woodwaste processing contractor is further aiding in this process by marketing all processed woodwaste materials locally to avoid moving the fungus outside the zone of infestation, which extends west from the Highway 5 corridor.

4e. Stream Care Guide Yearly Mailing: The Stream Care Guide list will continue to be updated to include new owners of streamside property, the guide booklet will continue to be mailed on a yearly basis. This effort will require minimal staff effort. (Planning Department)

The Stream Care Guide mailing has been curtailed since 1993 due to budgetary constraints. Stream Care Guides are mailed out to interested parties upon request.

4f. Adopt-A-Stream Program: Develop an Adopt-A-Stream Program on a trial basis and determine its potential to protect, enhance and restore stream resources within the County. Development and implementation of an Adopt-A-Stream Program will require a significant outreach and coordination effort over a period of several years. (Planning Department)

(Mark Deming, Planning x3183)

The Adopt-a-Stream program was deferred due to budgetary constraints. However, this program has been carried forward by the Resource Conservation District and a number of grass-roots organizations who have developed Coordinated Resource Management Programs (CRMPs) centered on local streams. The CRMPs have been formed for the San Lorenzo River, Soquel Creek, Arana Gulch, Scott Creek and several others.

4g. **Public Education:** Improve the educational and outreach programs for all County environmental policies and ordinances through the use of school materials, pamphlet mailings and, if significant funding is available, video. Such improvements would be anticipated to occur over a two year period. (Planning Department)

This program was deferred due to budgetary and staffing constraints.

4h. Work with the Resource Conservation District to Implement the Policy Directives of Measure C. The Santa Cruz County Resource Conservation District (RCD) provides variety of services to local residents. During a recent meeting With RCD representatives, it was determined that this agency couldplay a positive role in Measure C implementation in the area of public education. Staff discussed the concept of holding a workshop for contractors and public agencies involved with construction projects located in or adjacent to streams. The workshop would present information on local, state, and federal regulations pertaining to the protection of stream resources, on the need for clear bid document language regarding stream protective measures to be adjacent to a waterway. The RCD has agreed to hold such a workshop during the spring of 1992. (Planning Department and Resource Conservation District)

The Resource Conservation District and the Planning Department, although hampered by the lack of adequate funding, have coordinated a number of educational programs aimed at assisting rural residents in resource conservation and protection. Programs have included erosion control, road building, stream care and fire prevention workshops. These workshops are sponsored and planned by the RCD, with Planning staff providing technical support either through presentations, field demonstrations or provision of written materials.

5. GREENBELT PROTECTION AND RESTORATION

5a. Urban Services Line: Reinforce the Urban Services Line through the General Plan update process except in specific cases where it can be demonstrated that revising the line would lead to a measurable benefit to the community. This objective may be accomplished with the long-range planning staff resources required to perform the General Plan update. Assistance may be required during the second year of the process. (Planning Department)

The Urban Services Line has been reviewed and strengthened as a part of the 1994 General Plan update. Several areas not meeting the criteria for inclusion within the Urban Services Line were removed and adjustments/corrections have been made to insure consistency with the General Plan policies. There has been no conversions of rural lands to urban lands.

5b. Agricultural and Open Space Easement: Expand the use of Agricultural and Open Space Easements to provide increased permanent protection for open space resources within the County. Through the Agricultural Conservation Easement (ACE) program funded by the State, the Planning Departments' Resources Section staff have developed ranking criteria, the institutional framework, and public outreach information necessary to initiate the purchase of conservation easements from interested agricultural



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landowners. Additional acquisitions beyond those allowed under the current grant budget would require outside funds to accomplish. Staff will pursue additional funding for this purpose as it becomes available. (Planning Department)

The Agricultural Conservation Easement (ACE) program was successfully completed in June 1999 with the purchase of two easements, one on the north coast and one near Harkins Slough in south county. All of the funds assigned to the County under the ACE enabling legislation have been expended. No other funds are available for future acquisitions.

The County is implementing the 'super' Williamson Act statutes and has created the Farmland Security Zone so that eligible properties can enter the program. These Farmland Security contracts supercede the Williamson Act contracts, provide additional tax incentives to keep agricultural land in production, and protect farmers from unwanted urban development. The 10-year term of the Williamson Act contract is extended to 20-years. Six properties entered this program in 1999. More are expected in 2000.

5c. Septic System Requirements: Consider amending the General Plan and Sewage
Ordinance to require a one acre minimum lot size for new septic systems on existing lots
of record in order to lower development densities, thereby protecting greenbelt areas and
reducing the potential for impacts to ground and surface waters from on-site sewage
disposal, These changes could be accomplished with existing staff resources.
(Environmental Health and Planning Department)

Environmental Health Services completed the San Lorenzo Wastewater Management Plan and the San Lorenzo Nitrate Plan, which were adopted by both the Board of Supervisors and by the State Regional Water Quality Control Board. These plans provide for significant improvement in water quality through improvement of existing septic systems and reduction of nitrate discharges from septic systems, livestock operations, and other sources of nitrate throughout the County.

Comprehensive amendments to the Sewage Disposal Ordinance Chapter 7.38 were adopted by the Board of Supervisors in 1992. The amendments required new installations to utilize shallow trenches in order to provide for better treatment of sewage effluent, resulting in a reduction of the potential for impacts to ground and surface waters from onsite sewage disposal. Policies have been put into effect through adoption of amendments to the Sewage Disposal ordinance, and other ongoing implementation efforts.

5d. Open Space District: The majority of development-related impacts in rural areas occur from activity on existing lots of record. These impacts are difficult to control, even though the application of County's ordinances designed to protect environmental resources. It is therefore recommended that the County study use of an Open Space District or similar vehicle to preserve a limited number of the remaining undeveloped parcels within the County. This program would be particularly effective if coordinated with the local land trust and neighboring counties. Such a program would be long-term and require additional staff and financial resources to develop and implement. (Planning Department)

This program has been deferred due to budgetary constraints.

5e. Transfer of Development Credits: Study the potential for a Transfer of Development Credits Program to preserve parcels which contain unique resources or which are located in areas where open space amenities would be ofparticular benefit to the community. The conditions described above in the discussion regarding the development of an Open Space District would apply to the need for establishing a Transfer of Development Credits Program as well. This program would be ongoing and would require additional staff resources to develop and implement. (Planning Department)

This program has been deferred due to budgetary constraints.

5f. Natural Resource Protection County Service Area: During the 1990-91 budget hearings, the Board of Supervisors directed Planning staff to return during 1991-92 budget hearings with recommendations to augment the funding source utilized by Zone 4 of the Flood Control and Water Conservation District to conducts its resource enhancement and restoration work. Because of the relevance of this work to the Measure C effort, it is recommended that the County establish a Natural Resource Protection County Service Area to augment Zone 4 funds. A recommended source of additional funds to support or expand these services may include the creation of a Natural Resource Protection County Service Area. Creation of such a County Service Area (CSA) can be carried out with existing staff resources. (Planning Department)

This program has been deferred due to budgetary constraints.



5g. Park Planning: Update the Rural and Urban Park Master Plan for the purpose of identifying specific park and open space sites within the County for potential future acquisition. Identifying specific park and open space sites has been and continues to be an ongoing process within the County Park planning Division of POSCS. The rural and urban Park Master Plan update was included in the 1990-91 fiscal year. (Parks Department)

The Rural and Urban Park Master Plan was updated for potential future park acquisitions.

During the 1990's, several properties were acquired in order to expand the recreational opportunities within the unincorporated area of the county. These properties include: the Chanticleer Park Site, Harper Street East, Jose Avenue Park, Pleasure Point Overlook and the Hook.

In addition to park acquisitions, significant park development has occurred during this decade, including: the Simpkins Family Swim Center, the Polo Grounds, Jose Avenue Park, the Hook, Davenport Landing Beach Access, Bonny Doon Parking Area, Aldridge Lane, Floral Park, Hidden Beach, Winkle Farm Park, Willowbrook Park, Felton Covered Bridge Park, Scott Park, and Twin Lakes Park. These parks offer a variety of recreational opportunities including play structures, beach access sites, tennis courts, volleyball courts, basketball courts, picnicing, swimming, soccer fields, and ball fields. There were also improvements made in many of the County's parks. The play structures were replaced in Rio Del Mar Park and Coffee Lane Park; Seascape Park had landscape improvements; Ben Lomond Dam Park, through volunteer efforts, has had several improvements; a new play structure was installed at Pinto Lake Park; the Dolphin Sumner beach access was rebuilt as was the Shore Trail; new play equipment was installed at Richard Vessey Park and Soquel Lions Park; a restroom was installed at the Hook; Wilder Hall had new appliances installed as well as a complete interior painting; at Quail Hollow Ranch, a restoration of the main house was begun; and at the Aptos Park Community Building the kitchen was totally redone and the interior repainted.

Planning is underway for the development of the Anna Jean Cummings Park. Volunteers worked on relocating and refurbishing Valencia Hall and the Master Plan process has begun for Quail Hollow Ranch and Harper Street East Park.



6. RECYCLING

6a. County Parks Recycling: Place and service recycling receptacles at all County Parks.

Large recycling dumpsters have been placed at three County Park sites as part of a pilot project to encourage recycling at public facilities. POSCS has recently submitted a grant application to the State Department of Conservation to provide funds for additional containers, as well as a truck to handle recycled materials. (Parks Department)

During the majority of the decade, the Parks Department conducted recycling at most of the park sites. Thousands of pounds of glass were recycled, as was aluminum. With the passage of Proposition 218 and the loss of CSA #11 funding, the funding for the recycling program was no longer available and the program was discontinued.

6b. Road Maintenance Program: Concrete and asphalt rubble is currently used for road maintenance purposes in slope protection, and at the landfills as road sub-base for winter operation. Any material that is not used for these purposes is stockpiled at the Buena Vista Landfill. Under contract, Granite Construction will utilize portable crushing equipment to crush the concrete. This material will be used by Granite in their operations and a royalty paid to the County. (Public Works Department)

Since 1985, Public Works has been working with Granite Construction to recycle all used concrete and asphalt removed from road and building projects throughout Santa Cruz County. Demolished concrete and asphalt is separated at the Buena Vista Landfill and stored on a closed section of the landfill. Customers are provided a rate incentive for separating this material. Every three to four years, Granite Construction provides a mobile crushing plant, under the 1985 landfill parcel purchase agreement, to process all the stockpiled materials. The end product is used either as road base on new road projects in the County or as a covering for public access roads at the landfill. Public Works derives a royalty of \$0.35 per ton for all processed concrete and asphalt materials.

Over 19,000 tons of used concrete and asphalt was separated from the incoming wastestream in 1997 and 1998. Processing of the current concrete and asphalt pile is scheduled for the summer of 2000. Below is a chart depicting the levels of concrete diversion over the last several years.

6c. Source Reduction: The Solid Waste Management Planning program, administered by Resource Section of the Planning Department and funded through the Department of Public Works refuse budget, has included a source reduction component during the 1991-92 fiscal year. The commercial recycling specialist, recently hired by the Planning Department, will be working with General Services to amend the County procurement specifications, where appropriate, to reduce local governments' overall resource consumption. This staffperson will also make presentations to large scale waste generating local businesses concerning ways to reduce waste. A broader public education effort is also envisionedfor the future, and will be dependent on the receipt of additional staff or capital resources. (Public Works Department, General Services and potentially other departments)

The Department of Public Works is now responsible for solid waste source reduction programs within the County. The Recycling Specialist position was transferred from the Planning Department to Public Works during the 1990's. These programs include home composting, materials exchange, and office waste reduction. Home composting promotion continues to be a primary focus of the program. Home composting is promoted through Ecology Action and the County's franchised refuse and recycling collector, Waste Management, under contract with the County. Since 1990, over 160 home composting workshops have been given and over 4,200 compost bins distributed to residents of the unincorporated county through Ecology Action sales events or Waste Management's bin distribution through their customer accounts. A recent survey of home composting activity has just concluded and results, including estimates of quantities, will be available in late September, 1999.

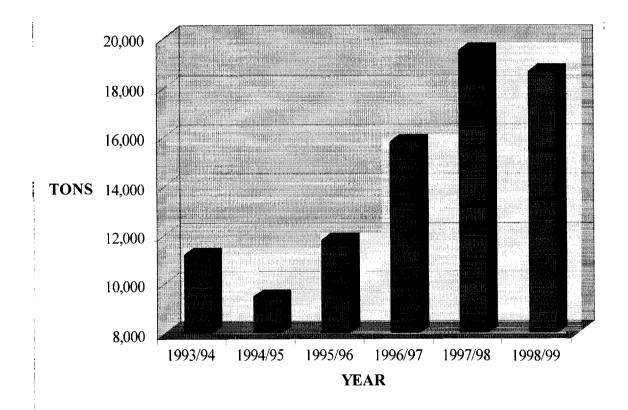
Public Works has sponsored the operation of a materials exchange program since 1993. This program, ProMax, is run by Ecology Action and provides a service whereby a business or individual can list an unwanted material in a published bulletin and another business or individual can obtain the item or material through contact with the exchange. Exchanged materials are then reused or, in some cases, become feedstock for recycling, and disposal is avoided. ProMax is associated with a statewide exchange for a wider broadcast of exchange opportunities. Since 1993, an estimated 300 tons of materials have been diverted annually in this fashion from landfill disposal in our county.

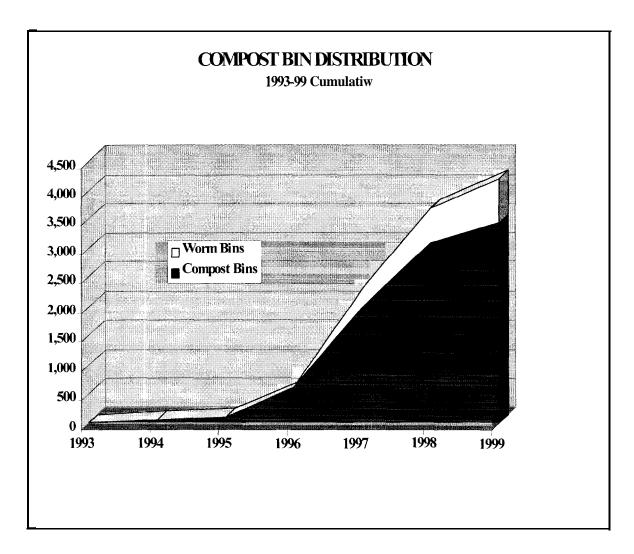
Public Works continues to provide ongoing public information on source reduction through a variety of educational programs including: newspaper ads and television commercials outlining the County's solid waste and recycling programs; public presentations to schools and service organizations; funding of the Public Schools Resource Conservation Program; maintenance of a 24-hour hot line with a wide variety of recycling and waste reduction information; development of an Internet web page; commercial recycling assistance through our Commercial Waste Audit Program run by

Ecology Action; and distribution of recycling information at the solid waste facilities and through Waste Management. In 1998, Public Works hired a full time Public Education coordinator to assist with expansion and implementation of a more aggressive public education program aimed at improving recycling efforts and reducing waste generation through education.

Public Works is conducting a comprehensive inventory of all waste reduction activity in the unincorporated area and developing estimates of the quantities identified. This report will be completed in November 1999 and will provide the information necessary to develop future waste reduction and diversion programs.

CONCRETE RECYCLING BUENA VISTA LANDFILL





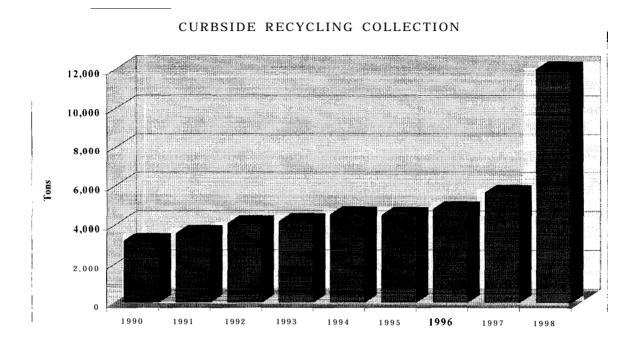
6d. Residential Recycling: Expand existing and create new residential recycling programs to maximize resource recovery of materials from this source. These efforts should include expansion of curbside collection to all urban areas, expansion of buyback and drop off services in rural areas, universal collection of separated wet and dry materials, rate incentives for source separation, possible mandatory refuse collection and source separation. Curbside service to all urban areas andpossible modification of collection methods may require 4 to 6 years to accomplish. An expansion of the Curbside Recycling Program is proposed for the 1991-92 fiscal year, adding approximately 4,000 new residences. This expansion will result in an increase in program costs for the County, which is proposed to be funded through the refuse budget. Future expansion will require additional financing. In addition, the Planning Department has appliedfor \$100,000 in grant funds from the State Department of Conservation to improve recycling opportunities in the San Lorenzo Valley. While the Department is hopeful that its request

will be approved, the status of the application is uncertain at this time. (Public Works Department)

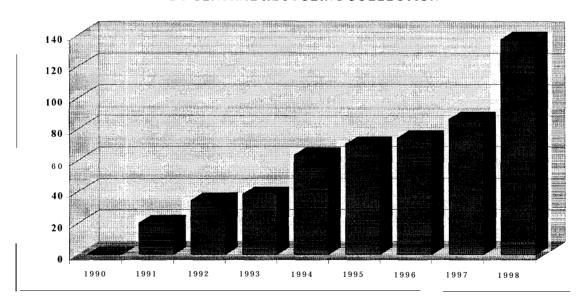
The County's new curbside recycling program (implemented in November 1997) provides service throughout the entire unincorporated County. The service is available in several formats to residents in both single and multi-family residential housing. In 1990, the program served about 15,000 households, recycling about 350 tons per month. Currently the program serves approximately 32,000 households, and up to 1,200 tons of recyclable material are collected monthly. The chart below depicts the steady increase in curbside recycle tonnage over the decade. Approximately 58% of the households within the unincorporated county participate in the curbside recycling program, up from a participation rate of 32% in the early 1990's.

The inclusion of multi-family housing in the curbside recycling program began in 1990 when the County received a State Department of Conservation grant to establish a pilot program of central recycling collection at 20 sites. The successful pilot was incorporated into the ongoing curbside program in 1992. Outreach by Public Works staff has helped this program expand over the years. Today 137 multi-family complexes, including apartments, condominiums, and mobile home parks, are utilizing a central recycling collection opportunity. The growth in participation is shown in the chart below.

The new Franchise Refuse, Recycling and Yardwaste Collection and Processing Agreement not only expanded the service area, but the number and types of recyclable materials collected including collection of added materials such as mixed waste paper, cereal boxes, and all types of rigid plastic containers (#1-7), and a separate collection for yardwaste. Curbside yardwaste collection, in combination with the existing self-haul woodwaste collection program at the county solid waste facilities, has dramatically increased diversion of this material stream.



MULTI-FAMILY COMPLEXES SERVED BY CENTRAL RECYCLING COLLECTION





Operation of public drop off centers at the Buena Vista Landfill and Ben Lomond Transfer Station Recycling Centers are now operated by two local non-profit recyclers: Grey Bears and Valley Women's Club. These two organizations also provide the same expanded recycling opportunities for self-haul residential and commercial customers, consistent with the expanded curbside collection program in addition to the hard-to-recycle commodities such as white goods, scrap metal, auto batteries, and waste motor oil.

In addition to the recycling drop off operations at the County facilities, we also sponsor other drop off operations such as the Valley Women's Club facilities in Felton and Boulder Creek. New public recycling facilities for under-served areas of the County are being considered and Waste Reduction Grant funding is also being provided for a wide variety of smaller scale public recycling programs. All these public drop off facilities are essential to meet the recycling needs of those county residents who elect not to utilize Waste Management's refuse and recycling collection services.

The following is a summary of the diversion efforts through County sponsored and/or operated programs in 1998:

1998 DISPOSAL AND DIVERSION SUMM	ARV LINICO	RPORATED	SANTA CRI	IZ COUNTY	7
1920 DIGI (25AL ANNO DIVERSION SOMM	AKI, UMCC	MICHAILD	DANTA CIC	<u>ZCOUNTI</u>	-
					1998
	1ST OTR.	2ND OTR,	3RD OTR,	4TH OTR.	TOTALS
UNICORP. CO. DISPOSAL (all sites):	25,940	26,508	29,043	30,211	111,702
LANDFILL/T. STATION DIVERSION PROGRAMS':	6,928	10,842	12,025	8,383	38,178
LANDFILL/T. STATION RECYCLING CENTERS:	1,500	1,500	1,500	1,500	6,000
SALVATION ARMY (landfill centers):	200	200	200	200	800
CURBSIDE YARDWASTE (Waste Management):	2,080	2,719	2,306	1,941	9,046
CURBSIDE RECYCLING (Waste Management):	2,829	3,211	3,084	2,988	12,112
VWC CENTERS' (offsite):	150	150	150	150	600
GREY BEARS' (offsite):	600	600	600	600	2,400
JIM BACON' (offsite):	450	450	450	450	1,800
TOTAL DIVERSION:	14,737	19,672	20,3 15	16.212	70,936
TOTAL GENERATION:	40,677	46,180	49,358	46,423	182,638
% UNINCORPORATED COUNTY DIVERSION:	36%	43%	41%	35%	39%
Self-Haul woodwaste, concrete, asphalt, tires and mattresses. Count, sponsored programs.					



6e. Commercial Recycling: At present, the County does not serve the local business community with any comprehensive recycling program. A solid waste consultant, under the direction of the Department of Public Works, Planning Department and CAO staff is currently developing a preliminary design for a local Materials Recovery Facility (MRF). The MRF is a key component in the County's ability to expand both residential and commercial recycling. This facility will provide a means to recycle materials from both the residential and commercial sectors and is currently scheduledfor construction in 1994. As part of the 1991-92 work program, the commercial recycling specialist in the Planning Department will assist private businesses to establish internal systems for the separation of recyclables from other refuse and will develop other programs, such as adjustments to collection routes and methods to maximize the efficiency for the MRF in the area of commercial recycling. As indicated on the schedule of implementation, work in this area will be ongoing, with a significant future funding requirement for MRF construction and operation. (Public Works Department, CAO)

Public Works is currently engaged in a comprehensive study to identify needs and opportunities for increased commercial recycling. The study, to be completed by November 1999, is examining waste disposal composition to determine precisely what types of materials are still being thrown away and from what types of businesses the materials originate. Study recommendations will then focus on specific recovery programs to divert these resources from landfill disposal.

Public Works has begun development and design of a recycling system for construction and demolition (C&D) waste received at the Buena Vista Landfill. \$580,000 in capital funding was approved by the Board of Supervisors for this program in FY 1999/00. C&D waste, along with food waste, are particularly heavy components of the county wastestream and their recovery will aid the County's overall waste diversion efforts. Only minimal amounts of these materials are currently recovered through rate incentive programs at the County solid waste facilities. Public Works is also cooperating with other cities through the County Integrated Waste Management Local Task Force to enhance existing food waste recovery activities throughout the county.

Public Works staff has successfully implemented a Waste Reduction Grants program approved by the Board of Supervisors to encourage recycling activities in the business community. Grant money is available through the County's solid waste program and grants are based on diversion effectiveness, innovative recycling approaches dealing with currently non-recycled wastestreams, source reduction activities, start up business activity focusing on utilization of recycled materials, and educational programs designed to result in reduced landfill disposal. As an example, the California Grey Bears recycling subsidiary known as SCRAP (Santa Cruz Recycling Alliance Project) focuses specifically on commercial cardboard collection. Last year, the County provided Waste

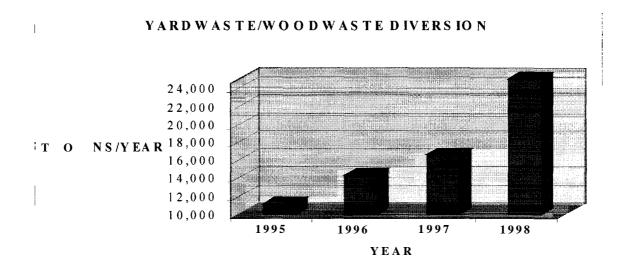
Reduction Grant funding to SCRAP for expansion of their commercial cardboard recycling program. Since inception of the grant program in December 1995, 29 grants for a total of \$374,000 have been approved by your Board for a wide variety of commercial and residential recycling related programs, which are summarized below.

WASTE REDUCTION GRANTS						
DATE	PROJECT	VENDOR	AWARD			
12/95	Commercial Cardboard Recycling	Santa Cruz Recycling Alliance Program	50,000			
5/96	Household Eco Teams	Ecology Action of Santa Cruz	15,000			
5/96	Local Materials Exchange	Ecology Action of Santa Cruz	1,500			
5/96	Coastal Cleanup Video	Ecology Action of Santa Cruz	1,300			
5/96	Bilingual Series of Articles	El Andar Publications	2, 800			
6/96	Source Reduction Shopping Seminar	Janice Watson & Chris Moran 6,000				
6/96	Small Business Training	Green Conscience	4, 890			
6/96	Commercial Cardboard Recycling	Santa Cruz Recycling Alliance Program	25, 000			
6/96	Building Materials Exchange	McGrath Associates	3, 000			
2/97	Cabrillo Compost Demonstration	Ecology Action of Santa Cruz	5, 325			
2/97	Commercial Cardboard Recycling	Santa Cruz Recycling Alliance Program	25, 000			
2/97	School Trash Size Reduction	Santa Cruz County Office of Education	16,200			
2/97	Household Eco Teams Phase 2	Ecology Action of Santa Cruz	15,000			
6/97	Food Waste Survey	Karin Grobe	7, 000			
6/97	School Trash Size Reduction Phase 2	Santa Cruz County Office of Education	60,410			
6/97	Construction Debris Recycling	New View Hauling	16,500			
9/97	Commercial Cardboard Recycling	Santa Cruz Recycling Alliance Program	25, 000			
12/97	Composting PSA for TV	San Francisco League of Urban Gardeners	500			
12/97	Jardines del Valle Compost Structure	Mid-Peninsula Housing Coalition	3, 500			
12/97	Vermicomposting Project	Skills Center	19,550			
3/98	Commercial Cardboard Recycling	Santa Cruz Recycling Alliance Program	7, 000			
8/98	Master Cornposter Training	Ecology Action of Santa Cruz	2, 645			
8/98	SLV High Recycling Pilot	San Lorenzo Valley High School	1,000			
8/98	Aptos High Recycling Pilot	Aptos High School	3, 000			
8/98	SCOR Office Paper Collection	California Crey Bears	7, 500			
1/99	Food Waste Project Phase 2	Karin Grobe	4, 000			
1/99	Sustainable Quality Awards	Sustainable Quality Alliance	5, 000			
3/99	Cardboard Collection Vehicle	Santa Cruz Recycling Alliance Program	15,000			
6/99	Food Waste Project Phase 3	Karin Grobe	25, 000			

6f. Composting: Compostable materials comprise a significant portion of the County's waste stream. As mentioned in recommendation 6e above, the MRF is currently being designed for the purpose of diverting much of the material currently being deposited in local landfills. The design concept includes a provision for composting. While large scale composting operations will not begin until the MRF is constructed it should be noted that woody debris at the County's Buena Vista landfill is currently sold to a wood-fired power generation facility located near Soledad or other sites. (Public Works Department, CAO)

Under the new franchise agreement with Waste Management, Public Works is continuing to operate a yardwaste/woodwaste diversion program at the Buena Vista Landfill and Ben Lomond Transfer Station. Woodwaste collected at the sites is ground into chips by a subcontractor to Waste Management (Vision Recycling of Fremont) and either sold for agricultural/landscaping uses, compost feedstock, or transferred to biomass co-generation plants as fuel. The 1997 franchise agreement with Waste Management includes a curbside yardwaste collection component that has resulted in a significant increase in yardwaste diversion since inception of the program.

The Department of Public Works has previously provided funding for a series of pilot onfarm composting and agricultural/landscaping use projects aimed at developing the needed technical information to further the market opportunities within the farming community locally. The demonstration program was successfully completed in 1997 and has resulted in greatly improved market conditions for materials produced by the County's yardwaste/woodwaste diversion programs. Last year over 24,000 tons of yardwaste and woodwaste (13% of the landfill waste stream) was diverted from landfilling through these programs. Below is a graph depicting the changes in diversion of yardwaste and woodwaste over the last four years:



6g. Public Education: Develop and implement solid waste public education programs to increase awareness of available programs, and provide information on proper methods of participation, modification of disposal practices and information on consumer alternatives. These programs will be most effective if done on a countywide, interjurisdictional, cooperative basis, and should be viewed as ongoing in nature. The Department of Public Works has proposed to initiate a program of solid waste management education aimed at the elementary school level. This proposal will be reviewed by the Interdepartmental Solid Waste Task Force and incorporated into the comprehensive plan for solid waste-related education work currently being developed through creation of the Source Reduction and Recycling Element. These programs will require additional staff resources to accomplish. (Public Works Department, Planning)

The purpose of the County Solid Waste Public Awareness Program is to raise the level of public awareness surrounding the solid waste management crisis and its solutions, both statewide and Countywide. In 1998, the Public Works Solid Waste and Recycling Division hired a full time Public Education coordinator to facilitate expansion and implementation of a more aggressive educational program aimed at increasing waste diversion and recycling through knowledge. The major focus of the Public Education Program is the ongoing dissemination of public information on waste reduction and recycling opportunities through a variety of educational programs, the media, and public access systems including: newspaper ads and television commercials outlining the County's solid waste and recycling programs; public presentations to schools and service organizations; funding of the Public Schools Resource Conservation Program; maintenance of a 24-hour hot line with a wide variety of recycling and waste reduction information; development of an Internet web page; commercial recycling assistance

through the Commercial Waste Audit Program run by Ecology Action; and distribution of recycling information at the solid waste facilities and through Waste Management. Waste Management, under terms of their new eight year Franchise Agreement, also provides a wide variety of public educational information aimed at waste reduction in the residential and commercial communities.

In the previous year, Public Works has funded the development of three public service commercials aimed at better informing the general public of the many waste reduction and recycling opportunities that are available Countywide. Three more commercials are scheduled for production and airing in the 1999/2000 fiscal year.

6h. **Economic Development:** Establish a program to ensure that markets or other end-uses, local, regional, state, national or international, are available for the supply of secondary materials generated by resource recovery programs. This is envisioned to be a long-term, ongoing project. (<u>CAO</u>, Planning and Public Works Departments)

The County of Santa Cruz has been a member of the Central Coast Recycling Market Development Zone (CCRMDZ) since 1993. Over the past seven years, eight Central Coast businesses have received over \$2,000,000 in low-interest recycling market development zone loans issued through this partnership between local jurisdictions and the State Integrated Waste Management Board. Mixed waste paper, compostable materials, construction and demolition waste, mixed plastic, and agricultural film plastic are current Zone priority materials. The CCRMDZ has surveyed over 1,300 manufacturers located in the Central Coast region to identify interest in manufacturing with recycled feedstock; results are being used to target potential end users and new recycled material markets. Through a grant from the State Department of Conservation, the CCRMDZ is working with local manufacturers to establish the feasibility of using recycled PET plastic for injection molding parts production. The results of this project will be available in December 1999.

6i. National Materials Policy Development: Attempts to change current material economic policies which provide incentives for the private sector to use virgin rather than secondary materials as feedstock for manufactured goods would require a concerted effort on the part of the County, in coordination with other local and state governments. The long-term sustainability of recycling and the full realization of its larger benefits of energy and natural resource conservation will not be achieved until, nationally, the manufacturing sector is grounded in secondary resources feedstock, rather than virgin resource consumption. The Planning Department's Solid Waste Management Program staff will work with the Interdepartmental Task Force during fiscal year 1991-92 to devise a strategy to advocate the development of a National Materials Policy. This effort will culminate in the presentation of recommendations to the Board of Supervisors for

possible action. (CAO, Planning Department)

Interest continues to develop in the creation of a National Materials Policy with calls in Congress for elimination of "corporate welfare" tax breaks, such as the oil and timber depletion allowances which discriminate against the use of secondary (recycled) materials by subsidizing extraction of virgin resources.

6j. Public Works Engineering Liaison Position: The departments of Public Works and Planning are responsible for a number of programs which have overlapping areas of concern. For example, Public Works funds the solid waste planning function performed within the Planning Department. Similarly, Public Works designs and constructs improvements in and around streams which may affect the ability of those watercourses to convey flood waters, while flood control responsibilities reside within the Planning Department. It is, therefore, recommended that these two departments continue to improve coordination of these and other workprogram areas by designating an engineering position within the Department of Public Works to act as a liaison with the Planning Department on issues of mutual concern and responsibility. (Public Works with Planning Assistance)

The addition of a Resource Planner to Public Works' Drainage Engineering Program staff will help improve coordination between Public Works and Planning on issues of mutual concern. These areas of mutual concern include watershed management practices which protect and enhance water quality and preserve and enhance wildlife habitat. The responsibilities of the position pertinent to Public Works' Measure C efforts will include:

- formulation and application of best management practices leading to better control or elimination of sources of pollution of storm water reaching the County's stream ways, rivers and the Monterey Bay; and
- formulation of watershed management practices which can be incorporated into and/or form the body of the County's Phase II NPDES permit pursuant to requirements of the federal Clean Water Act.*

*The National Pollution Discharge Elimination System (NPDES) permit must be approved and obtained by the County through the Regional Water Quality Control Board (RWQCB) by March 31, 2003.

Through public outreach, in-house training, preparation and review of improvement plans, coordination with environmental regulatory agencies (Fish & Game, RWQCB, National Marine Fisheries, Fish & Wildlife Service, Corps of Engineers, etc.), the new staff member will be integral to Public Works' fulfillment of its role in preservation and enhancement of habitat in the County's rivers and streams and the Monterey Bay. This is also in keeping with County Code Section 16.90's stated goal of protection of biological diversity and human health through protection and restoration of the environment.



6k. Develop a Program for Recycling Household Batteries: During the summer of 1990, the Resources Section of the Planning Department sponsored a graduate student intern to investigate the feasibility of recycling household batteries. The results of this study, published in the April issue of Resource Recovery magazine, indicate that there is only one company in the United States which processes household batteries for reuse.

Unfortunately, the recovery methods employed by this company have led to a series of major and as yet, unresolved environmental problems in the vicinity of the processing plant. Consequently, there is currently no environmentally sound methodfor recycling household batteries. Staff does feel, however, that the proposal under discussion has merit and will continue to monitor the availability of a market for this product.

(Environmental Health and Planning Department)

Household batteries are currently collected through the recycling drop-off centers at the Buena Vista Landfill and Ben Lomond Transfer Station in conjunction with the Household Hazardous Waste Collection Program. Collection of household batteries is also provided under the franchise agreement with Waste Management in conjunction with the curbside recycling program. Household batteries are also collected inter-office from County facilities through the Santa Cruz Office Recycling (SCOR) Program, sponsored by Public Works. At present, household batteries are collected and sent to facilities that reclaim metals present and properly dispose of any hazardous residue.

61. Provide Recycling Containers at all County Facilities: Through the Santa Cruz Office Recycling (SCOR) program, staff is experimenting with the placement of recycling containers at two public areas within the County Governmental Center. The SCOR program is scheduled to be expanded to the County's Emeline Complex in the near future and it is anticipated that recycling containers for the public can be incorporated into the program at that facility. This need will also be taken into account during future program expansions to other County facilities. (Public Works Department)

The Santa Cruz County Office Recycling (SCOR) Program, coordinated by Public Works staff, continues to function throughout the County offices by utilizing a network of volunteer Recycling Advocates in each office. Information on the value of source reduction, re-use and recycling practices in the office as well as techniques to implement the practices is distributed periodically to the Recycling Advocates via E-mail and newsletters. A materials exchange program is also in effect allowing departments within the County to list supplies and equipment that may have a re-use option in other departments. Public Works staff coordinate or contract for collection of a wide variety of recyclable materials from County facilities. Approximately 300 tons of recyclable materials are collected annually (six cubic yards of materials daily) through this program, resulting in savings of over \$11,000 in disposal fees. The County's new employee orientations now include a presentation by Public Works staff on the SCOR Program.

Training for Recycling Advocates and other interested employees is available each year through County Training Task Force class offerings.

In 1997, the County, together with the four cities, initiated a program of solid waste education for the county's public schools, called the Public Schools Resource Conservation Program. This program combines classroom teaching and on-site waste reduction activities at targeted schools. The program began with five schools in FY 1997/98, expanded to ten schools in 1998 and will add three new schools for FY 1999/00. The long range goal is to have a presence in all 52 public schools in the county.

The project is a cooperative effort of the County Office of Education, Life Lab Science Program, and Ecology Action of Santa Cruz. The County Office of Education provides administrative oversight, liaison and material support to participating schools, and overall program promotion and funding support. Life Lab provides curriculum development and teacher training, while Ecology Action provides on-site assistance in establishing and maintaining waste diversion programs, including recycling and composting. For schools in the unincorporated area, the county's franchised refuse hauler, Waste Management, provides material support in the form of recycling containers and collection.

Ecology Action provides a "waste assessment" at the start of the program for each participating school which helps to educate school administrators on waste reduction issues and to establish a baseline database against which subsequent waste reduction successes can be measured. For FY 1998-99, a total of 313 tons of material were diverted from disposal to recycling or composting as a result of the program. One of the benefits of the program for participating schools is the resultant savings in avoided refuse collection and disposal costs, amounting to about \$18,000 for this past year for four unincorporated area schools alone.

7. TOXIC AND RADIOACTIVE MATERIALS

7a. Regulations Regarding Disposal of Medical Waste: Recently adopted State legislation revises and expands the regulation of medical wastes, including the creation of a ban on disposal of untreated medical wastes in landfills. In February, 1991, the Board of Supervisors adopted an ordinance for local enforcement of the State Medical Waste Management Act. Approval of fees to finance the localprogram and hire a half-time staff person to implement the ordinance were submitted as part of the Environmental Health Services budget for fiscal year 1991-92. (Environmental Health)

The Board of Supervisors adopted a comprehensive medical waste program during FY 1991-92. The Medical Waste registration, permit, and inspection program has been fully integrated into the routine workload of Environmental Health Services.



7b. **Toxics Education Program:** Establish an education and outreach program for both businesses and the general public regarding the safe use, recycling and disposal of toxic materials and acceptable substitutes for these substances. This is envisioned as an ongoing program which would require an augmentation of staff resources to accomplish. (Environmental Health)

Promotion of the Household Hazardous Waste Education program is conducted by Public Works staff as a component of the Solid Waste Public Education Program. The program includes maintenance of a 24-hour information hot line, numerous school and service organization presentations, distribution of point-of-purchase information on HHW disposal, newspaper and recycling newsletter advertisements and safety tips, development of hazardous material alternatives information, booth sponsorship at a variety of community functions, and promotion of the Waste Exchange Program for household products and paints.

7c. Hazardous Materials Compliance Officer: Create a Hazardous Materials Compliance Officer position within the County governmental structure. This individual would identify alternatives to toxic substances used by County departments, would establish storage and disposal procedures, and would oversee training and record keeping efforts. Creation of a permanent position will require identification of an appropriate funding source. A request for funding this function has been included in the fiscal year 1991-92 budget. (Personnel, Environmental Health, Public Works, Risk Management)

The Occupational Safety and Health Division of the Personnel Department oversees the County's Hazardous Materials Management program and management of the County's Asbestos abatement in County facilities.

7d. Household Hazardous Waste Collection Program: this program was added in 1992.

The County-operated Household Hazardous Waste (HHW) Collection Program continues to provide a much needed service to both the public and the solid waste facility operations. In 1998, the program removed over 796,000 lbs. of hazardous waste (a 15% increase from previous year) from the residential waste stream, reducing the potential environmental and public health risks for both the solid waste collectors and the landfill operation. Most of the hazardous waste removed was treated, recycled, consolidated for use as a supplemental fuel, or given back to the public through the County Waste Exchange Program at the Buena Vista Landfill. Only 28,500 lbs. of hazardous waste that had no reuse or treatment option was landfilled in a Class I landfill or required destructive incineration. Latex paint made up the majority of the recycled materials and was given away to charitable organizations and graffiti clean-up groups as well as to the general public. In the year from July 1998 through June 1999, 36,000 gallons of used motor oil



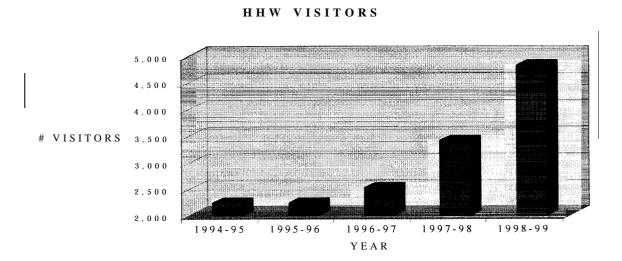
and 12,000 used oil filters were collected at the Buena Vista Landfill and Ben Lomond Transfer Station recycling centers. Oil and filters are also collected though the residential curbside recycling program. Used motor oil is sent for reprocessing back into motor oil.

Because of continuing requests from the public, in FY 1999/00, Public Works will also be starting a new program for at-home collection of HHW from disabled and homebound residents.

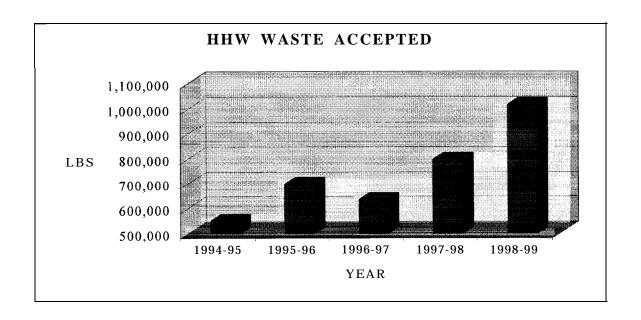
A Waste Exchange facility is operated in conjunction with the HHW collection program at the Buena Vista Landfill. Residents from throughout Santa Cruz County come to this facility to pick-up reusable household products such as paint, cleaners, automotive care products, art supplies and lawn/garden care products. This operation has been a huge success and has resulted in the annual diversion of over 61,000 lbs. of hazardous waste from disposal or treatment, at an estimated savings to the County of over \$75,000. Last year alone, the facility gave away over 20,000 gallons of recycled latex paint.

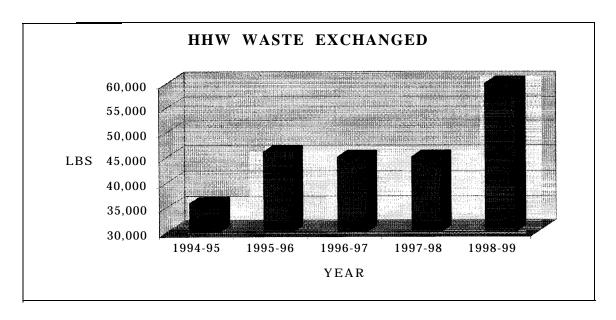
Public Works is currently constructing a Waste Exchange Facility at the Ben Lomond Transfer Station to serve San Lorenzo Valley and Scotts Valley residents. Construction of a facility similar to the one at Buena Vista is expected to divert up to 20,000 lbs. of hazardous materials from disposal or treatment, at an estimated savings of \$25,000. The County was recently awarded a \$55,000 grant from the California Integrated Waste Management Board (CIWMB) for these facility improvements.

The graphs below depict public participation and HHW collection and diversion quantities for the last 5 years.









The Department of Public Works is the sponsoring agency and administrator for a regional used-oil recycling grant program funded by the CIWMB which serves the entire County. This program is aimed at increasing and promoting the recycling opportunities for used motor oil and oil filters. The state agency has certified fourteen service stations and auto parts stores in the county as Certified Used Oil Collection Centers, which offer

to pay do-it-yourself oil changers an oil recycling incentive fee of 4 cents per quart to turn in used oil. These centers are reimbursed directly by the State for their participation in the program. The County disburses CIWMB grant money to reimburse the Cities of Santa Cruz and Watsonville and the Santa Cruz Harbor for curbside and/or drop-off oil and filter collection. A local waste oil hauler, Bayside Oil, is contracted to collect oil and filters from County disposal site recycling centers and filters from several of the Certified Centers. The County also uses grant funds to contract with Ecology Action of Santa Cruz to conduct a multi-faceted public awareness campaign to promote public and private oil and filter recycling opportunities in the county.

8. ENDANGERED SPECIES AND BIOLOGICAL DIVERSITY

8a. Sensitive Habitats Protection Ordinance: Clarify the protective measures contained in the Sensitive Habitats Protection Ordinance and establish development standards for application, particularly within the sandparklands habitat. This task would require from one to two years to accomplish with appropriate staff allocations. (Planning Department)

Through time, the Planning Department's ability to identify and protect sensitive species has greatly improved. Once sensitive species are identified on a property proposed for development, a Biotic Report is prepared. Based on the mapping information and management recommendations contained in the report, the Planning Department requires that a biotic preservation easement, with management and reporting requirements, be established. These vehicles are an effective means of preserving sensitive species and habitats through the planning process.

Significant steps have been taken to protect some of the best remaining examples of sand parkland habitat, an extremely rare plant community. The literature indicates that less than 200 acres of this habitat type existed in 1994. In the fall of 1998, Graniterock, Inc. transferred ownership of the 32.6 acre South Ridge at Quail Hollow Quarry, in satisfaction of conditions contained in a Stipulated Agreement executed in 1994. The South Ridge is recognized as the best remaining example of sand parkland habitat, containing the greatest concentration and diversity of sand speciality species.

8b. Biotic Resources Maps: Update the information contained on the Biotic Resources Maps to accurately reflect currentfield conditions and incorporate this information into the EMIS and ALUIS computer systems. Such a task would require funding and a multi-year effort to accomplish initially and would then become an ongoing effort as new information becomes available. (Planning Department, Information Services)

The Planning Department has developed a GIS desktop application, in ArcView, that



displays the application number of all biotic reports on file with the County. This allows a Resource Planner to view the application numbers of reports prepared near to a subject property for comparison purposes. Expansion of the application to include a database of significant findings of each report and a scanned copy of the reports is projected for FY 1999-00.

Additionally, the Planning Department annually purchases the Natural Diversity Database from the Department of Fish and Game. This database contains information on the results of biotic studies and observations made by professionals regarding rare and endangered species. This database has been integrated with ArcView to allow staff to access the data on the County's parcel base map.

8c. Salamander Protection (SP) Combining Zone District: Document the habitat boundaries of the newly discovered Santa Cruz Long-Toed Salamander population and expand the SP Combining Zone District to encompass this area. This work would require a multi-year effort. (California Department of Fish and Game, U.S. Fish and Wildlife Service, Planning Department)

This program refers to the discovery of a new breeding population of salamanders located in Larkin Valley. Due, in part, to County efforts, the property containing the breeding pond is in the process of being purchased by U.S. Fish and Wildlife and the California Department of Fish and Game. The standards which apply in the SP Combining Zone District were developed within the context of the small lots of record which predominate in the vicinity of the breeding ponds known to exist at that time. These standards would need to be significantly revised in order to fit with the land uses and parcel sizes around the new breeding site. Such a revision would require additional staff resources to complete.

8d. Feral Pig Eradication: In response to concerns regarding environmental damage caused by a growing local feral pig population, the Feral Pig Advisory Committee, in collaboration with the Agricultural Commissioner, submitted a legislative proposal to the Board of Supervisors for broader County authority to manage this species. The Board of Supervisors has endorsed the proposal, which has been forwarded to Senator Mello along with a request for his sponsorship and assistance in passage of the bill. (Agricultural Commissioner)

In 1997, State Senator Bruce McPherson introduced legislation intended to loosen restrictions for taking pigs that are causing or are threatening to cause damage to residential, park, and agricultural property. Senate Bill 329 was signed into law and became effective January 1,1998. The legislation was drafted with input and cooperation from County Agricultural Commissioners (CAC), hunting groups, and the Department of

Fish and Game (DFG). The new law eases previous restrictions, allowing the immediate taking of wild pigs when landowners or their agents discover pigs causing damage or threatening to cause damage. The law exempts individuals from hunting-license and pigtag requirements, but it requires DFG notification no later than the next working day after a pig taking, and an effort must be made to utilize edible carcasses. The CAC and the DFG are developing guidelines to implement the provisions of SB 329.

8e. Utilization of University of California Faculty, Staff, and Student Expertise: Develop a close working relationship with U.C. Santa Cruz for the purpose of utilizing faculty, staff, and student expertise in the area of resource protection, enhancement and restoration.

Initial discussions with several faculty members regarding a pilot project have been promising. This is anticipated to be an ongoing effort requiring limited additional staff commitment. (Planning Department)

UCSC faculty, staff, and students have been utilized, as necessary, to complete specific projects in their areas of expertise. Phase 2 of the Farmworker Housing Needs Assessment Study was coordinated and prepared by staff of the Agriculture and Community Project, UCSC, in 1995. This report built upon the initial Farmworker Needs Assessment Study and identified constraints and opportunities for development of farmworker housing.

8f. Restoration of Native Vegetation: Establish a program to control or eradicate invasive, non-native plant species and re-establish native vegetation, on County owned or managed land and other lands. This effort would be ongoing and would require the commitment of a significant amount of staff and financial resources. (Parks and Public Works Departments)

During the 1990's, the Parks Department has reduced invasive species at Aldridge Lane Park, Quail Hollow Park, Seascape Park, Felton Covered Bridge Park, Willowbrook Park, and Twin Lakes Park. Every year, the County has made Quail Hollow Ranch County Park available for burning of French Broom.

As part of the Polo Grounds Park entrance road project, the Parks Department has committed to a native plant restoration project for the Bottle Brush. At the Bonny Doon Parking Area, a native plant restoration project was included as part of the construction.

The Parks Department is in the final stages of administering a grant to the California State Department of Parks and Recreation for plant restoration work at Buzzard Lagoon. State Parks replanted Buzzard Lagoon with native plants to repair damage caused by illegal use of the area by off-road vehicles.



The Department of Public Works completed final closure of the old Ben Lomond Landfill in 1995. A portion of the old landfill site is part of the rare Zayante Sand Hills biotic community and had been disturbed as a result of 40 years of landfill operations. Public Works is funding the ongoing restoration of this habitat with funds designated for landfill post-closure maintenance. Work is continuing on this project and with the exception of some minor vandalism, the restoration work is progressing well. The completed project was designed to closely resemble the adjacent undisturbed biotic community and should reach a mature, sustainable level in three to four more years.

To enhance this restoration project, Public Works will be funding a French Broom and Star Thistle eradication program later this year. Both of these exotic weeds are very invasive and have a negative effect on native habitats. The eradication program will focus on invasive weeds found on the landfill and transfer station site and adjacent public roadways.

8g. Unique Habitat Protection: Develop a program to protect unique habitat areas including encouraging the recordation of Open Space Easement contracts to protect identified sites. This is envisioned as an ongoing program which could require significant staff and financial resources to accomplish. (Planning Department)

This work is similar to that described under the "Sensitive Habitats Protection Ordinance" above (*see* item 8a.). Recordation of biotic preservation easements routinely occurs as a means to protect sensitive species and habitats from development activities. Efforts are currently underway to improve the quality of the Department's Biotic Resource Maps and to increase the ability of staff to identify these resources.

8h. **Public Education:** Produce a series of videos covering a variety of resource protection-related topics for public education purposes. Such video production would likely require the commitment of significant staff and financial resources. (Planning Department)

This program was deferred due to budgetary/staff constraints. The Planning Department has prepared a series of informational pamphlets on various resource topics that are available at the Planning Department's lobby.

8i. In-Stream Flow Studies: Request that the California Department of Fish and Game conduct in-stream flow studies of various major streams in the County as has recently been done for Soquel Creek. The Water Advisory Commission will evaluate the decline in the flows of major streams within the county. A list of watercourses for which instream flow studies would be useful, by priority ranking, will be developed for submission to the Department of Fish and Game following the concurrence of the Board of Supervisors. (Planning Department)

APPENDIX I: MEASURE C IMPLEMENTATION PLAN STATUS REPORT

This program was deferred during the 1990's due to budgetary and staff constraints; however, with the addition of a Water Resources Manager and complementary staff in the Planning Department this year, work can begin on this program.

8j. Field Analysis of Impacts from Rural Development: Conduct an intensive, field oriented analysis of the impacts to resources from existing development in the rural areas of the County and develop protective policies and regulations, if appropriate. This is meant to augment the statistical-type Rural Resources Study completed in 1991. A study of this magnitude would require significant staff and financial resources to accomplish. (Planning Department)

This program has been deferred due to budgetary constraints.

8k. Prepare a Wildlife Element of the General Plan: Work on the General Plan update is currently focused on the unincorporated urbanized areas of the County. While a Wildlife Element would pertain more to the rural portions of the county, the present work does include an assessment of the stream environments withing the urban services line and an evaluation of the adequacy of the County's environmental ordinances to protect these resources. In addition, Planning Department staff is in contact with a UCSC student whose undergraduate thesis deals with the preservation of biodiversity and contains recommendations which could be of interest to the County. These recommendations, as well as other issues pertaining to the protection of local wildlife, will be dealt with during fiscal year 1992-93 as part of the General Plan update process. (Planning Department)

This program has been deferred due to budgetary constraints.

81. Installation of Fish Passage Structures: this program was added in 1992.

Throughout the 1990's, the Department of Public Works installed fish ladders in conjunction with maintenance and replacement of drainage structures where practical and when beneficial, as determined by the Department of Fish and Game.

The Resources Section of the Planning Department has also installed fish ladders, utilizing California Conservation Corps crews.





9. DEVELOPMENT OF A SUSTAINABLE LOCAL ECONOMY

9a. Local Business Retention: Retain and expand existing local businesses through the Village Plan preparation process. This task may be accomplished through the staff resources required to conduct the Village Plan preparation and General Plan update process. For example, part of the emphasis of the Boulder Creek Town Plan will be to present policies to facilitate local business retention and expansion. Planning staff will also continue to participate in the Village Coordinator process, run by the Village Coordinator. (CAO, and Planning Department)

The following provides a re-cap of some of the initiatives that have been undertaken under the direction of the County Administrative Office to retain local businesses, and encourage their expansion:

Business Retention and Expansion Program (FY 1992/93): The specific objectives of the program were to develop communication links between the business community and the County's employment training services on local labor needs, and to develop an industry profile of the local manufacturing and business and health services sectors, countywide. Approximately 290 business were invited to participate, and about 90 were interviewed. The project developed recommendations for the job placement and training community to tailor employment and training programs to match the needs of local job providers. In addition, the project provided links between employment training services' eligible participants and the private sector, thereby expanding economic opportunities, principally for persons of low and moderate income, and it assisted Cabrillo Community College in planning occupational programs tailored to the specific needs of the local business community. Lastly, the project informed strategies aimed at the retention and expansion of existing firms as a key to increasing employment opportunity for low and moderate income households, and aimed at the selective attraction of new businesses, which can provide new employment opportunities, principally low and moderate-income individuals.

Economic Development Strategic Action Plan (FY 1994/95): The Board of Supervisors adopted an Action Plan which established various initiatives, including the Economic Development Strategic Action Team. The Team is comprised of the County Administrative Officer and key department heads, and can assist County firms with permitting issues. Eligible projects include those which retain or expand a firm in a targeted industry (recycling, high tech, recreation equipment design and manufacturing, food processing, biotech, research and development, electronics, marine-related), or creates or retains 30 or more jobs, or currently employs 50 or more individuals and will retain or expand employment, or those that generate significant annual county sales or transient occupancy tax.

Central Coast Regional Marketing Team (FY 1996/97): Launched a Central Coast Regional Marketing Team with a structured strategic action plan to promote the region, and enhance its competitive position and image in national and international markets. The County of Santa Cruz, and the cities of Watsonville and Santa Cruz, teamed up with other jurisdictions on the Central Coast including Monterey, San Benito, San Luis Obispo Counties, and other member cities, and program partners P G & E, Enron, and the California Trade and Commerce Agency to carry out a three-year action plan to promote our region, and to encourage the retention of businesses in the region. The action plan contains strategies which include a presence on the Internet, the design and production of effective marketing brochures and targeted promotional materials, attendance at targeted trade shows and trade missions, the placement of advertising in appropriate trade journals, and one-on-one visits with expanding firms.

Micro Loan Program for small businesses in the unincorporated areas (FY 1997/98): In partnership with the County's Redevelopment Agency, and Cal Coastal Rural Development Corporation, launched a program that would assist in the retention of small businesses by providing access to affordable credit and technical assistance for low and moderate income small business people. Over the life of the agreement, approximately 60 small businesses contacted Cal Coastal to inquire about the micro loan program. After in-depth interviews and, where warranted, site visits, eight businesses completed the application process. Three application packages were approved, for \$75,000 in total loans.

Economic Development Cluster Analysis and Action Plan (FY 1998/99): The goal of a collaborative county-wide process is to organize business, education, community and government leaders around specific action initiatives that will promote the long term quality of life and economic vitality of the County. The focus of Phase I will be to understand the trends, opportunities, and requirements of the primary industry clusters in the region, so that these productive clusters can be retained. The focus of Phase II will be to engage cluster businesses to work collaboratively with leaders from education, government, and the community to develop action plans that address the clusters' priority requirements, especially as they relate to a productive, trained workforce well matched to the tasks at hand.

9b. Local Resource Use: Promote industries which are reclaimed resources from the Materials Recovery Facility for producing products to be used locally (glassphalt paving, cellulose insulation, etc.). This is envisioned as an ongoing effort which can be carried out with existing staff resources. (CAO and Planning Department)

Public works continues to sponsor programs aimed at development of local reuse programs for recyclable materials collected locally. In 1994, Public works reported on





the status of a Buy Recycled guide under development. This document was completed in 1994 and has been expanded and continually updated over the years. The guide is distributed to local businesses and organizations, and is available at no cost to all members of the general public. The Buy Recycled Guide is a resource guide to area businesses selling recycled content products. The current guide also lists used merchandise vendors, repair shops, rental businesses, and Internet resources.

Public Works has also sponsored the operation of a materials exchange program since 1993. This program, ProMax, is run by Ecology Action and provides a service whereby a business or individual can list an unwanted material in a published bulletin and another business or individual can obtain the item or material through contact with the exchange. Exchanged materials are then reused or in some cases become feedstock for recycling, and disposal is avoided. ProMax is associated with a statewide exchange for a wider broadcast of exchange opportunities. Since 1993, an estimated 300 tons of materials are diverted annually in this fashion from landfill disposal in our county.

9c. Economic Development Strategy: this program was added in 1994.

In order to encourage the creation of a sustainable economy, the Santa Cruz County Board of Supervisors adopted a county-wide economic development strategy in November, 1994. The strategy contains programs designed to strengthen the local and regional economy. Activities include the identification of uses for recycled-content materials, and the expansion of businesses that use recycled materials in the manufacturing process, through the Central Coast Recycling Development Zone.

10. FUTURE GROWTH AND DEVELOPMENT

10a. General Plan Update: As the General Plan Update continues, Long-Range Planning staff and consultants are seriously considering the directives of Measure C as land use alternatives and policy recommendations are developed. This activity will continue as the Update proceeds. (Planning Department)

The General Plan Update was approved by the Board of Supervisors on May 24,1994. The California Coastal Commission approved the Local Coastal Program Land Use Plan amendments and implementation plan amendments on December 15, 1994. The 1994 General Plan/Local Coastal Program Land Use Plan (GP/LCP) became effective on December 19, 1994. The GP/LCP contains objectives, policies and programs which implement the policy directives of Measure C, and which will ensure that these directives are considered and implemented in the future. The specific GP/LCP objectives, policies and programs which implement Measure C are as follows:





Offshore Oil Drilling

Objective 5.3, Policy 5.3.1, Objective 5.4, Policies 5.4.1, 5.4.2, 5.4 Programs a., b.

Global Warming and Renewable Energy Sources

Chapter 3 (Circulation Element), Objective 5.17, Policies 5.17.1 through 5.17.9, 5.17 Programs a. through p.

Protection of the Ozone

Policy 5.18.10.

Forest Protection and Restoration

Policy 5.1.1, Policy 5.10.8, 5.10 Program j., Objective 5.12, Policies 5.12.1 through 5.12.13, 5.12 Programs a. to f.

Greenbelt Protection and Restoration

Objective 2.1, Policies 2.1.1 through 2.1.11, 2.1 Programs a. through d., Objective 5.11, Programs 5.11.1 through 5.11.6, 5.11 Programs a. through e., Policy 5.13.15, Sections 7.1 through 7.7c, Objective 7.21, Policies 7.21.1 through 7.21.6, 7.21 Programs a. through c.

Recycling

Objectives 7.24a., b., c., Policies 7.24.1 through 7.24.20, 7.24 Programs, Objectives 7.25a., b., Policies 7.25.1 through 7.25.13.

Toxic and Radioactive Materials

Objective 6.6, Policies 6.6.1 through 6.6.3, 6.6 Programs a. through d., Objective 6.7, Policies 6.7.1 through 6.7.27, and 6.7 Programs.

Endangered Species and Biological Diversity

Objective 5.1, Policies 5.1.1 through 5.1.15, 5.1 Programs, Objective 5.2, Policies 5.2.1 through 5.2.11, 5.2 Programs, Objective 5.3, Policies 5.3.1 through 5.3.6, 5.3 Programs.

Development of a Sustainable Local Sustainable Local Economy

Objectives 7.24a., b., c., Policies 7.24.1 through 7.24.20, 7.24 Programs, Objective 8.8, Policy 8.8.1.

Future Growth and Development

1994 General Plan (in toto).

10b. Water Conservation: Resources Planning staff is developing a Water Conservation Ordinance and proposals to amend existing regulations for the purpose of conserving, to the maximum extent feasible, local water resources. Some of the proposals may require drought tolerant landscaping, ultra low flow toilet installation accompanying septic system repair permits, and low flow water fixture retrofit standards. The Water Advisory Commission will be approachedfor their input on these proposals, which will ultimately be brought before the Board of Supervisors for consideration. This effort will require interdepartmental coordination and a significant allocation of staff resources. (Planning Department with direction from the Water Advisory Commission, Environmental Health)

Water demands exceed the available supplies throughout the four distinct surface/groundwater basins in the County. While each basin has its own unique issues and problems, each could benefit from the expansion of water conservation programs. The coordination of the water conservation and drought response programs of the eight major water purveyors in the County was identified in the Water Resources Monitoring and Management Report accepted by the Board of Supervisors on June 9, 1998. As a result, County staff convened an informal interagency water conservation committee which began meeting on a monthly basis in May of 1999. County staff also is an active member of the Pajaro Valley Water Management Agency's Water Conservation Committee.

10c. County Water Master Plan: Update the 1985 North County Water Master Plan with the objective of creating a more specific, useable tool for analyzing land use decisions affecting water resources. Include an investigation of the potential for groundwater recharge and off stream winter storage projects in the County as part of this update. This undertaking would require the commitment of additional financial resources. (Planning Department)

On April 14, 1998, the Board of Supervisors received a report from the Departments of Planning, Public Works, and Health Services Agency/Environmental Health Services entitled "An Evaluation of Water Resources Monitoring and Management in Santa Cruz County". The report discussed the status of current water resources management and monitoring programs and provided a broad array of recommendations concerning County efforts in this important area. In response to additional Board directives, the County Administrative Officer convened an Interdepartmental Working Group made up of the department heads and key staff from the Health Services Agency, Planning Department, and the County Administrative Office.

The Interdepartmental working group gave high recommendations to the following three categories:

- 1) the need for proactive countywide water resources management and water supply planning (including outreach efforts and development of funding mechanisms);
- 2) the need for increased erosion control and riparian enhancement (including fisheries protection); and
- 3) the need for increased baseflow, as well as water quality/quantity monitoring (including well metering).

A Water Resources Manager was hired in Spring 1999 to focus on better developing programs and funding strategies for addressing identified problems. Additional water resource staff have been hired in both the Planning Department and in Environmental Health Services to focus on new and expanded water resource management programs.

10d. Agricultural Conservation Easements: As indicated under recommendation number 5b, "Agricultural and Open Space Easements," Planning Department staff is actively monitoring potential sources offunding for continuation of the existing Agricultural Conservation Easement program. This is anticipated to be an ongoing effort and as such will be included in future years' work programs. (Planning Department)

Established in 1990, the Santa Cruz County Agricultural Conservation Easement (ACE) Program was created to disburse funds appropriated by the California Wildlife, Coastal and Park Land Conservation Act, approved by California voters in 1988. The \$1 million granted to Santa Cruz County for the acquisition of conservation easements on commercially viable agricultural land in the Pajaro Valley and the Coastal terrace north of the City of Santa Cruz.

All of the granted funds were expended on the acquisition of two easements which were voluntarily offered for less than their appraised values. A 165 acre portion of the Coast Dairies and Land Company property, which appraised for \$815,000, was conveyed to the County for \$766,600. The County secured an easement valued at \$212,000 on the Cardoza Ranch, located on Harkins Slough Road in Watsonville, for \$200,000 from the Open Space Alliance which used the funds to complete their purchase of this property.

Overall, there was very little landowner interest in the ACE Program. The lack of financial or tax incentives attributed to this lack of interest. Agricultural conservation easements appraised for very low values in Santa Cruz County because of the County's strict agricultural preservation policies and ordinances. According to various appraisers familiar with the ACE Program, only commercial agriculture (CA) parcels occurring adjacent to the urban services line or with a history of proposed development would have much value attached to the parcel's development rights. In light of this information, there

appears to be no justification for actively seeking potential new sources of funding for continuation of the ACE Program at this time.

11. EDUCATION AND OUTREACH

Discussion of public education and outreach programs are contained in the above Measure C program updates.



INTRODUCTION

This report is intended to update the original Measure C Baseline Environmental Conditions Report, completed in June of 1992. The term "baseline" connotes the collection of quantitative data for use as a control, or for purposes of comparison at a later date. Much of the information presented in the original report was qualitative in nature and does not lend itself to the level of meaningful analysis and comparison normally associated with baseline studies. While that document did contain some limited amount of quantitative data, the information was derived from existing studies.

The focus of this report is to provide the most up-to-date information available on those topics for which the original document presented quantitative data. Other topics which were treated qualitatively in the original report are only discussed here if a significant event or change has occurred in the intervening years.

OFFSHORE OIL DRILLING

The coastal waters off Santa Cruz County continue to support a diverse and abundant assemblage of temperate, cold-water species of plankton, algae, invertebrates, fish, seabirds and marine mammals. This assemblage varies in relation to the natural phenomena of global climatic events, such as the short-term El Nino events and longer-term shifts in water temperatures. The dynamic nature of the ocean environment greatly influences the resident populations of these living marine resources. This variability makes estimating the "health" of the populations extremely difficult.

The coastal waters provide the County's residents with aesthetic and recreational opportunities and economic support through tourism and commercial fishery revenues. Protection of water quality is the key to ensuring the protection of the marine resources. The origins of water quality problems are diverse and many originate from land based activities. They include nonpoint pollution sources like urban runoff, marina and boating activities, agricultural runoff and wetland/riparian degradation. Since the designation of the Monterey Bay National Marine Sanctuary (MBNMS) in 1992, management and protection efforts have substantially increased as a result of Sanctuary efforts to coordinate existing federal, state and local agencies and other public and private groups.

The MBNMS Water Quality Protection Program, initiated in 1993, has completed detailed action plans on regional monitoring and interagency data access, urban runoff, marinas and boating activities and agricultural runoff. Implementation of many of the strategies included in these action plans is already occurring. Some of the strategies being implemented include the development of a model urban runoff program; installation of stormwater filters and monitoring

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of their effectiveness in trapping oil, sediment and trash from paved or other impervious surfaces in the Monterey area; distribution of oil absorptive pads and outreach literature to boaters at the region's harbors; installation of bilgewater and crankcase oil pumpout facilities at the harbors; educational outreach to restaurants and automotive businesses and coordination of individual volunteer watershed monitoring programs.

Additionally, in 1998 — the International Year of the Ocean — President Clinton extended President Bush's ten-year deferment of Outer Continental Shelf Leasing for oil and gas development off central and northern California until after the year 2010. However, new oil and gas development is occurring off the southern California coast.

GLOBAL WARMING AND RENEWABLE ENERGY RESOURCES

Identified in the "Baseline Environmental Conditions of Santa Cruz County," global warming continues to be an environmental category of concern. According to many scientists, global warming results from a build-up of carbon dioxide in the atmosphere. The major source of excess carbon dioxide is waste products from fossil fuel combustion. Fossil fuel consumption also produces fine particulate matter, nitrogen and sulfur oxides. The Monterey Bay Unified Air Pollution Control District (MBUAPCD) continues to monitor the ambient air quality in Santa Cruz County in Davenport and in Santa Cruz. Since the baseline study, MBUAPCD has also added monitoring stations in Scotts Valley and Watsonville.

Automobile use continues to account for the greatest consumption of fossil fuel in Santa Cruz County and is, accordingly, the largest source of air pollution. In 1997, Caltrans estimated more than 939 million miles of travel on state highways in Santa Cruz County (compared to 892 million in 1990) and 936.7 million miles on other Santa Cruz County roadways, for a total more than 1,875.7 million miles traveled in Santa Cruz County in 1997. The vast majority of all these trips continue to be by private automobile. In 1995, the Santa Cruz Area Transportation Management Association conducted a survey of employees at 106 employment sites throughout Santa Cruz County and found that 73% of commuters journey-to-work in single occupant vehicles (3% bike, 2% bus, 2% walk, 15% carpool, 0.3% telecommute). Despite the increase in miles traveled in Santa Cruz County, the number of autos, trucks, and motorcycles registered by the DMV in Santa Cruz County only increased slightly from 193,980 in 1991 to 198,230 in 1998.

One of the major changes since the baseline study has been in the types of projects eligible for transportation funds. In 1990, the largest source of state funds, State Transportation Improvement Program (STIP) funds, was restricted to state highway projects and the projects were chosen in Sacramento; however, the funding system was changed and now these state funds are available for capital improvements across all transportation modes and three-quarters of the funding is allocated locally. Additionally, the passage of the two federal transportation



acts in the 90's, ISTEA and TEA-21, increased the amount of funding available to transportation alternatives to single occupancy vehicles. Over the past few years, the Santa Cruz County Regional Transportation Commission, which programs much of the state and federal transportation funds which flow to our region, has funded a multi-modal program of projects which includes improvements to state highways, local streets and roads, bikeways, pedestrian facilities, buses and bus transit facilities, and enhancements such as landscaping for transportation corridors.

During FY 1999/00, the SCCRTC will update the Regional Transportation Plan (RTP), the long-range transportation planning document for our county addressing all modes of travel. The Regional Transportation Plan will document the region's transportation goals, policies and objectives for meeting current and future mobility needs and issues and identify major transportation project and program needs for the future.

Mindful of the number of trips made to the Governmental Center by the public seeking Planning Department services, the Planning Department sought grant funds from the Monterey Bay Unified Air Pollution Control District to open a satellite office. The Felton Permit Center opened in 1997 and, besides the convenience to the public, has resulted in the following mileage and nitrogen o ide, sulfur oxide, and fine particulate matter savings:

Felton Permit Center Savings (1997	7 to June 30, 1999)
Total of all Visitors	2,081
Total Miles Saved	22,164
Total Pounds of Sulfur Oxide Saved*	19.0
Total Pounds of Nitrogen Oxide Saved*	25.4
Total Pounds of Particulate Matter Saved**	116.1

^{*}Sulfur and Nitrogen Oxides interact with oxygen to produce ozone or with carbon dioxide and water to produce acid rain or fog.

With the expansion of business hours at the Felton Permit Center and the opening of the proposed South County Permit Center in FY 1999/00, additional savings are assured.

The Planning Department is also encouraging use of the Internet, fax, and telephone for obtaining simple building transactions. Currently, Over the Counter Building Permits (such as



^{**} Fine particulate matter can damage plants, cause health problems and contribute to smog.

reroof and water heater permits) may be obtained by using the Internet, phone, or fax; the public may pay by credit card. In FY 1999/00, Building Permit Application Time Extensions, Building Permit Time Extensions, and Construction Inspection Requests will also become available. Also proposed for the Internet in FY 1999/00 are brochure lists, handouts, agendas, and complaint forms.

PROTECTION OF THE OZONE LAYER

On August 6, 1991, the Board of Supervisors adopted Ordinance No. 4143, amending Chapter 5.46 regarding environmentally acceptable packaging materials ("Packaging Ordinance"). One of the primary objectives of this ordinance was the reduction in use of non-degradable food and beverage packaging, specifically polystyrene foam products. At the time of this ordinance adoption, polystyrene foam products were commonly manufactured with chloro-fluorocarbon based solvents, known to be associated with atmospheric ozone depletion. A side benefit of this ordinance was the reduction in demand for products made with compounds believed to be associated with ozone depletion. Due to public input on this issue, manufacturing processes have since changed and little, if any, polystyrene is manufactured today using ozone depleting compounds.

In 1991, the Board of Supervisors also adopted an Ozone Depleting Compound Ordinance, aimed at reduction and elimination of ozone depleting compounds being released into the atmosphere. A similar rule was adopted federally in June 1993. In early 1992, Public Works initiated a freon recovery program at the county solid waste facilities. Freon used in refrigerators is a known ozone depleting compound. Freon recovery equipment was purchased for the recycling center operators at both county facilities and new policies were adopted prohibiting the disposal of refrigerant containing appliances (FCA) in county landfills. The county supplied equipment is used to extract all freon from any FCA brought to a county solid waste facility.

The FCA's are segregated by the recycling center operators and all freon is extracted with state approved equipment prior to co-mingling them with other scrap metal destined for market. Operators of both recycling drop-off centers are required to possess state certification as Freon Extraction Technicians. The extracted freon is sent to a facility that either reuses or destroys the recovered freons. Public Works continues to fund this program through landfill tipping fees. The program currently collects and decommissions approximately 3,000-3,500 FCA units each year (i.e. refrigerators and air conditioners). Public Works also funded the purchase of two new freon extraction units in 1998 to improve program efficiency and recovery rates.

In addition, all Public Works maintenance facilities possess similar FCA recovery units for use in repairs and maintenance of air conditioning units in County fleet vehicles.



APPENDIX II: 1999 BASELINE UPDATE

FOREST PROTECTION AND RESTORATION

Due to the high value of the Douglas fir and redwood resources in the County and the demand for these resources, timber harvesting in Santa Cruz County in the latter half of the decade has increased dramatically (see table at end of report). As timber harvesting has increased in the County, conflicts between three interest groups — the timber industry, the environmentalists and the neighborhood groups — has intensified. The timber industry believes that the current regulations, as enforced by the California Department of Forestry through the Forest Practice Rules, are adequate to safeguard the environment and nearby residential properties, and provide for sustainable forest resources. The environmentalists want tighter controls on timber harvesting, especially where they will protect and enhance the salmonid fisheries which are listed under the Endangered Species Act. Neighborhood groups are concerned about the impacts of timber harvesting on their property (including noise, dust, trespass, etc), their children's safety, and the 'rural' lifestyle that they pay dearly for. County government is, at the end of the decade, in the midst of a complicated process to address, through zoning amendments and the State's regulatory process, the concerns and needs of these three groups.

In the latter part of the decade, mostly due to the uncertainty of County regulations regarding where timber harvesting will be allowed, a number of property owners have sought rezonings of their properties to the Timber Production zone district. The acreage of land designated for commercial timber harvesting has, therefore, increased. It is expected that additional lands will be zoned TP (Timber Production) in the early part of the next decade as well.

At the same time, residential development on existing properties in the rural areas of the County has also increased. Much of the conflict between residential properties and timber harvesting is occurring now as the 'new' residents in the mountains witness their first timber harvest

GREENBELT PROTECTION AND PRESERVATION

In 1978, the voters of Santa Cruz County enacted Measure J, a Growth Management System. One of the principles of Measure J is the protection of open space and resource areas by encouraging growth within the urban areas and discouraging growth in the rural areas of the County.

The success of the ordinances adopted to enact Measure J can be seen by the sharp drop in the number of rural parcels being created and the number of building permits, especially in the rural area, being issued. The following charts illustrate permit activity in the 1990's. For comparison purposes, in 1979, the County approved 318 new rural parcels; in 1977, the County issued 1550 building permits for new dwelling units (with more than half located in the rural area). During the 1990's, considerably less than 40 new rural parcels were created per year and building



APPENDIX II: 1999 BASELINE UPDATE

permits for new dwelling units never exceeded 375.

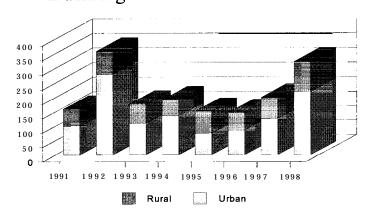
Rural Parcels Approved 1991-I 998

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APPENDIX II: 1999 BASELINE UPDATE

Building Permits Issued 1991-1998



One of the major accomplishments of the 1990's was the protection of the Coast Land and Dairies property on the North Coast. This protection, along with additional properties acquired by the State Parks Department, ensures open space on the North Coast in perpetuity.

The Board of Supervisors is in the process, this fiscal year, of adopting permanent regulations implementing Farmland Security Zones. These provisions will offer enhanced protection for the County's agricultural lands.

RECYCLING

The original Baseline Environmental Conditions Report contained quantitative information

about disposal rates and methods and amounts of diversion of material from the wastestream. This information was generated through completion of the County Solid Waste Management Plan and the Source Reduction and Recycling Element of the Integrated Waste Management Plan.

As thoroughly discussed in Appendix I, there have been dramatic improvements in the number of citizens and businesses that recycle and as well as the amount of materials being recycled. These improvements can be traced to the continuing awareness of the public of the need to recycle and the increasing availability of recycling opportunities. Additionally, success can be attributed this decade to funding and staffing provided by the County and other sources.

TOXICS AND HAZARDOUS MATERIALS

Hazardous Materials

Since the passage of Measure C and the designation of the 1990's as the Decade of the Environment, the Environmental Health Service (EHS) has conducted approximately 10,000 inspections of businesses that use, handle, and store Hazardous Materials (HM) and/or Acutely Hazardous Materials (AHM). These inspections have provided the opportunity for one-on-one, real world, education of business operators with regard to ever-changing environmental regulations. EHS has worked with the business community and together they have continued to raise the level of environmental and public health protection. Facilities that use, handle, and store AHMs have recently met a Federal deadline, and State threshold facilities are working hard to meet a July 1, 2000 deadline. These facilities are undergoing detailed evaluations of their potential for off-site consequences and implementing the appropriate facility upgrades to prevent and/or minimize the effects of such a release. While great strides have been made, EHS must continue to inform, educate, and, in rare occasions, take an enforcement posture so as to continue to protect our community and environment.

Hazardous Waste

In conjunction with the inspections performed by EHS for Hazardous Materials, Federal, State, and Local laws pertaining to Hazardous Waste are also enforced. Once again, education and business cooperation are the keys to success. Proper storage, disposal, and waste minimization are the goals of Hazardous Waste management. By all accounts, significant progress has been made in this area as well. Regular inspections ensure these materials are properly stored with secondary containment and the mandated storage times are not exceeded. Each year has seen reductions in the amounts of waste generated. These reductions are verified by the inspector's



review of business records (manifests). Businesses are also finding substantial cost savings through recycling and altering processes to reduce their waste.

Contaminated Sites

Sites that have been identified as being contaminated with hazardous materials are remediated under the auspice of the State's Department of Toxic Substances Control or the Central Coast - Regional Water Quality Control Board, and the Environmental Health Service. These clean-ups are always done with local (EHS) involvement, and issued closures with local concurrence. The most common contaminates are those associated with automobiles: gasoline, diesel, oil, waste oil, coolants, and solvents. A few industrial sites also exist in Santa Cruz County and undergo a similar process and involvement from the same regulatory agencies. On average, between 50 and 100 sites are closed each year as the work is completed by the responsible parties. New sites are discovered through real-estate transactions and property development (redevelopment). Often, these cases are the result of historical or prior uses of the property and were contaminated decades earlier. Substantial penalties exist in Federal, State, and local laws for non-reporting of contaminated sites once discovered and are imposed by the District Attorney's Office with the assistance of EHS.

<u>Underground Storage Tanks</u>

Over the last 10 years, Underground Storage Tanks have been the focus of a great deal of attention. Federal, State, and Local laws have brought stringent requirements to bear on this method of storage of hazardous materials. During this period of time, in Santa Cruz County, EHS has provided over-site during the removal of nearly one thousand old, abandoned, and/or leaking, single-walled tanks. Less than 200 tanks of double-walled construction have been reinstalled, resulting in a significant reduction in sources of contamination of our precious aquifers. Unfortunately in the last few years, an oxygenate additive to gasoline, Methyl tertiary butyl ether (MTBE), has been showing up in surface and groundwater, creating cause for concern. The chemical characteristics of MTBE make it difficult, even with upgraded tank systems, to contain and even more difficult to clean-up from our environment. By virtue of the geology (sandy soil) and hydro-geology (shallow groundwater) that exists in parts of Santa Cruz County, we have the unfortunate distinction of having some of the worst MTBE contaminated sites in the State, according to the Regional Water Quality Control Board. Even though laws have been passed to phase out the use of MTBE, the clean-up activities associated with this chemical alone will likely take decades.

ENDANGERED SPECIES AND BIOLOGICAL DIVERSITY

Plant and Animal Species



During the past ten years, the County has continued to preserve and protect sensitive species and habitat through the implementation of Chapter 16.32, the County's Sensitive Habitat Protection Ordinance. Proposed projects within areas supporting plant and animal species designated as rare, endangered, threatened or "species of special concern" by the California Department of Fish and Game, the U. S. Fish and Wildlife Service, or the California Native Plant Society receive review for compliance with state and federal laws.

Section 10(a) of the Endangered Species Act, enacted in 1982, requires the preparation of a Habitat Conservation Plan (HCP) when an "incidental take" of endangered and threatened species is proposed or when new species are discovered. Prior to the appointment of Bruce Babbitt as Secretary of the Interior, Section 10(a) of the Endangered Species Act received little attention outside of the State of California. In contrast to HCP's proposed prior to the Babbitt reforms, many of the 400 HCP's now underway address large areas of land and the habitat of hundreds of species throughout the State. Beginning in the early 1990's, landowners and local governments initiated "habitat-based" HCP's. This new form of HCP's attempt to move away from the "species by species" approach of the early HCP's and resolve conflicts with development activities through an ecosystem or habitat-based approach. The attachment at the end of this report depicts the planning areas of the approved or on-going HCP's in California.

Planning staff has participated in preparation or review of several project specific HCP's with the U. S. Fish and Wildlife Service for the California Red-legged Frog, Zayante Band-Winged Grasshopper, Mt. Hermon June Beetle, all listed during the 1990's by the Service, as well as the Santa Cruz Long-toed Salamander, one of the originally listed species by both the Service and the California Department of Fish and Game. Unfortunately, during this decade no species have thrived to the point of appropriate removal of their rare, endangered, threatened, or "special concern" designations. A list of endangered species is attached to the end of this appendix.

Fisheries

Small remnant populations of coho salmon still persist in Scott and Waddell creeks, but are at high risk for extirpation (local extinction). In addition, a few coho salmon has been observed in San Lorenzo River and San Vicente Creek in one or more of the past five years. Locally, coho salmon have been listed under the Federal Endangered Species Act (ESA) as threatened (1997) and as endangered under the State ESA (1996). Human impacts such as historical and current land use, water diversions and the removal of woody debris have degraded coho salmon habitat in Santa Cruz County streams. In addition, long-term climatic change and ocean conditions are most likely affecting adult survival and returns along the central coast, the southernmost extent of their range.

Steelhead trout occur in several Santa Cruz County streams including the San Lorenzo River, and Waddell, Scott, San Vicente, Arana, Soquel, Aptos, and Corralitos creeks. Studies of the

San Lorenzo River and Soquel Creek populations (Alley 1993, 1994) suggest that steelhead populations are less than 10% of historical numbers, but relatively stable. Along the Central Coast, Steelhead have been listed as threatened under the Federal ESA and is a State species of special concern.

For the past two years, the County has participated in FishNet 4C, a six-county effort to address land management practices that affect steelhead and salmon populations. Protecting existing steelhead and salmon populations will require a focused effort to prevent the further degradation of in-stream habitat from human impacts such as water diversions, sedimentation, and riparian corridor destruction. Existing populations would be vulnerable during sustained drought conditions. Additional effort will be required to enhance existing in-stream conditions to allow for population growth.

During the past ten years, habitat enhancement projects have been implemented in the Aptos Creek watershed (Aptos, Clear and Valencia creeks), San Lorenzo River watershed (Zayante, Branciforte, Bean, Fall, Mountain Charlie, Kings, and Fall creeks), Scott Creek watershed (Big and Scott creeks) and the Soquel Creek watershed (West Branch Soquel and Amaya creeks). Enhancement projects included barrier removal, instream habitat structures, erosion control and bank protection. A habitat enhancement project will be completed on San Vicente Creek by the Fall 1999. The goal of the project is to introduce woody debris for cover habitat, pool scour and bank protection.

NEW ENVIRONMENTAL CONCERNS IDENTIFIED

Evaluating the reduction in the contribution of groundwater to stream baseflow is an increasing new environmental concern. Most people associate streamflow with rainfall and surface runoff. It is understood by water resource professionals that groundwater contributes to streams in most physiographic and climatic settings. Groundwater systems deliver water from the source of recharge to the source of discharge. In fact, in this manner, groundwater contributes to the volume and duration of streamflow during the dry season. It is this contribution that is commonly referred to as "stream baseflow".

If groundwater levels decline below the elevation of the streambed, then this sustaining component of streamflow is reduced and the stream may locally lose surface flow to the groundwater basin. Several streams in the County have stream reaches exhibiting reductions in streamflow attributable to the declining elevation of groundwater levels. These streams are the San Lorenzo River including tributary reaches at Bean Creek and Carbonera Creek, Soquel Creek, Corralitos Creek and the Pajaro River. Concerns about reductions in the baseflow of streams is notable for potential impacts to downstream water supply interests and to restoration goals for anadromous fisheries. Also, the public seems increasingly concerned about visual amenities associated with flowing streams and with the frequency of which some stream reaches



dry up. Water resource staff of the County will be expanding efforts in the future to better understand and quantify the causes of reductions in stream baseflows.

Appendix B: Sensitive Habitat Plant and Animal Species

CALIFORNIA STATE PLANT SPECIES OF CONCERN FOUND IN SANT CRUZ COUNTY - RARE AND/OR ENDANGERED Update 8/99

800000				Update 8/99	
	SCIENTIFIC NAME	COMMON NAME	STATE/ FEDERAL STATUS	LOCATION	THREAT
	Agrostis agristiglumis	Awned bentgrass		Small colony on bluff near Greyhound Rock	
	Agrostis blasdalei	Blasdale's bentgrass		Few colonies in coastal grasslands, mostly Swanton/Greyhound Rock areas.	Threatened in part by agricultural conversion
	Amsinckia lunaris	Bent-flowered fiddleneck		Small colonies on slopes in Swanton area.	No Immediate treat?
	Arabis blepharophylia	Coast rock cress		One colony near Eagel Rock, purchased by Sempervirons Fund.	No Immediate threat.
	Arctostaphylos glutinosa	Schrelber's manzanita		Chalk ridges NE of Swanton , most of habitat owned by Lockheed.	Up to 1/3 population removed for fire suppression. Possible long-term threat from fire suppression.
	Arctostaphylos hookeri ssp. hookeri	Hooker's manzanita		Maritime chaparral in San Andreas/Calabasas area.	Threatened by residential development and competing exotics, especially Eucalyptus.
(Arctostaphylos pajaroensis	Pajaro manzanita		Collected in same area as A. hookeri, probably always rare in Santa Cru? Co.	Threats same as A. hookeri if not already extirpated in Santa Cruz County.
	Arctostaphylos silvicola	Silver leaved manzanita		Zayante sandhills and Bonny Doon	Residential development and sand quarryin Large population in Bonny Doon protected.
<	Arenaria paludicola	Marsh sandwort	CE	Only colony at Camp Evers marsh in Scotts Valley habitat destroyed for golf course and trailer park.	Habitat destroyed.
	Calyptridium parryi var. hesseae	Santa Cruz		Rare, few locations in sandy chaparral north of Watsonville, reported in Ben Lomond Mtn and Zayante sandhills.	More information needed on occurrences and threats.
Χ	Campanula callfornica	Swamp hare bell		Only colony at Camp Evers marsh in Scotts Valley habitat destroyed for golf coarse and trailer park.	
	Campanula exigua	Chaparral harebell		Two small colonies in Zayante sandhills	No Immediate threat7
	Castilleja latifola	Monterey Indian paintbrush		Coastal dunes at Sunset Beach State Park and Pajaro Dunes.	Most of population removed by residential development. Threatened by invasive exot - European beachgrass and iceplant.
	Ceanothus rigidus	Monterey ceanothus		Few plants in maritime chaparral in Calabasas area.	Threatened by residential development, competing exotics and tire suppression.
	Chorizanthe pungens var. hartweglana	Ben Lomond Spineflower	FE	Zayante sandhills and Bonny Doon.	Mining
	Chorizanthe pungens var. pungens	Monterey spineflowe	r FT	Sunset Beach and probably a few other sandy areas in south County but no recent collections.	More information needed on occurrences.
	Chorizanthe robusta var. robusta	Robust spineflower	FE	Found in a few sandy places in midcounty and Sunset Beach areas.	No immediate threat?
E	Chorizanthe robusta var. hartwegll	Hartweg's spineflowe	r FE	Restricted to a few flower fields in Scotts Valley.	Threatened by proposed housing and golf course development.

KEY

E = Endemic to Santa Cruz County

t = Presunted extinct

X = Extirpated in Santa Cruz county

STATE/ FEDERAL STATUS:

CE = State listed as Endangered

PE = Proposed as Endangered

CR = State listed as Rare

FE = Federally listed as Endangered

CC = Candidate for State listing

FT = Federally listed as Threatened

CALIFORNIA STATE PLANT SPECIES OF CONCERN FOUND IN SANT CRUZ COUNTY - RARE AND/OR ENDANGERED Update 8199

				Update 8199	
	SCIENTIFIC NAME	COMMON NAME	STATE/ FEDERAL STATUS	LOCATION	THREAT
	Collinsia franciscana	San Francisco collinsia		A few colonies on slopes in Greyhound Rock and Swanton areas.	No Immediate threat.
	Cupressus abramgiana	Santa Cruz cypress	CE/FE	Isolated groves in chaparral at Bonny Doon, Eagle Rock, Bracken Brae and above Smith Grade.	Some loss due to residential and vineyard development. Two colonies are publically owned.
:?	Cypripedium fasciculatum	Clustered lady's slipper		Formerly reported near Glenwood and Boulder Creek. No recent records.	Presumed extirpated in Santa Cruz County, possibly due to collecting.
	Elymus californicus	California bottlebrush grass		Isolated colonies in openings in woodlands In Swanton area and few mid county areas.	Most colonies not threatened at this time.
	Erigonum nudum decurrens	Zayante buckwheat		Zayante sandhills and a few sandy areas in south county.	Reduced by mining and residential development, but common in remaining habitat.
	Erysimum ammophilum	Coast wallflower		Secondary coastal dunes at Sunset Beach and south to Monterev Co.	Threatened by Iceplant
	Erysimum franciscanum	San Francisco wallflower		Few small colonies on sandy bluffs in Greyhound Rock area; population is at the southern limit of its rangee .	Threatened by competition from Iceplant
Ξ.	Erysimum teretifollum	Santa Cruz wallflower	FE	Zayante sandhills and a small colony in Bonny Doon.	Significantly reduced by quarrying. 2-3 populations protected, but largest population threatened by quarrying.
(?	Fritillama agrestis	Stinkbells		Reported between Santa Cruz and Soquel, no recent records.	Probably lost long ago to agricultural and urban development.
	Grindella latifolia	Coastal gumplant		Common in saltmarsh at Pajaro estuary and other places along the coast.	Moore common than originally considered; may be candidate for delisting.
Ξ	Gnaphalium zayanteense	Zayante everlasting		Zayante sandhills	Probably much reduced by quarrying
	Holocarpha macradenia	Santa Cruz tarplant	CE/PFT	A few colonies remaining in Watsonville area, Soquel/Live Oak area and at Graham Hill Rd.	Possibly all are currently or potentially threatened by various developments.
	Horkelia cuneata ssp sericea	Wedge leaved horkelia		Coasta grasslands in Greyhound Rock area and possibly elsewhere.	Probably much reduced by agriculture.
	Horkelia marinensis	Pt. Reyes horkelia		Native grasslands along Empire Grade	No immediate threat?
X?	Lillum rebescens	Redwood lily		Reported to occur south to Santa Cruz County. No recent records.	
	Lomatium parvifolium	Small leaved lomatium		A few found in maritime chaparral NW of Watsonville.	Still extant? Possible threat from residential development.
	Lupinus tidestromii	Tidestrom's lupin	FE		
	Malacothamnus arcuatus	Arcuate bushmallow		Few in chaparral near Big Basin	No immediate threats?
	Microseris decipiens	Santa Cruz microseris		Few colonies in Greyhound Rock/Swaton area.	No immediate threats?

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FEDERAL STATUS:

CR = State listed as Rare

FE = Federally listed as Endangered

t = Presumed extinct

CC = Candidate for State listing PFT = Proposed Fed Threatened **FT** = Federally listed as Threatened



C	CALIFORNIA STATE	PLANT SPECIES O	F CONCER	N FOUND IN SANT CRUZ COUNN Update 8199	- RARE AND/OR ENDANGERED
	SCIENTIFIC NAME	COMMON NAME	STATE/ FEDERAL STATUS	LOCATION	THREAT
E	Mimulus rattanii ssp decurtatus	Santa Cruz County monkeyflower		Chaparral borders in Zayante sandhills	Probably by mining and residential development.
	Monardella undulata var undulata	Curly leaved coyote mint		layante sandhills	Much reduced by mining and residential development.
Κ	Pedicularis dudleyl	Dudley's lousewort	CR	Reported from redwood forest at San .orenzo River and Aptos, but no recent ecords.	
	Penstemon rattanii sspgairdenii ssp kleei	Santa Cruz Mountains beardtongue		Few small populations in Nisene Marks State Park and Ben Lomond Mountain.	No immediate threats?
	Pentachaeta bellidiflora	Whaite rayed pentachaeta	CE	3ig Basin Quadrangle	
	Perideridla gairdneri ssp gairdneri	Gairdner's yampeh		Colonies on native terrace grasslands, mostly midcounty area, som in Swanton area.	Much reduced by agriculture and urban development; remaining colonies threatened.
	Pinus radiata	Monterey pine		Only native groves in Swanton area.	Possible threats due to disease and genetic pollution by artificially planted hybrids.
	Piperia elongata ssp michaelii	Michaels's rein orchid		Few colonies along north coast	Some reduction due to trampling, otherwise numbers mysteriously decreasing.
	Plaglobothrys chorisianus var chorisianus	Chorist's popcordflower		Scattered colonies in wet places, north coast grasslands, etc.	
t	Plaglobothrys diffsusus	San Francisco popcornflower	CE	Presumed extinct, since rediscovered in grassland near swanton and other places near Santa Cruz and Scotts Valley.	Most colonies threatened by housing development
	Quercus lobata	Valley oak		Best grove near corner of Zayante and Quail Hollow Rds, small groves and individual trees scattered throughout San Lorenzo Valley and other areas.	Future of main grove is uncertain.
х?	Ranunculus lobbli	Lobb's aquatic buttercup		Reported found in ponds and marshes south to central Santa Cruz County. No recent records.	
	Ribes divaricatum var publiflorum	Straggly gooseberry		Fairly common in moist, brushy areas.	No significant threats
	Sanicula hoffmannii	Hoffmann's sanicle		Several colonies in Last Chance Rd area	No immediate threats?
	Silene verecunda ssp verecunda	San Francisco campion		Mudstone outcrops in Greyhound Rock area.	No immediate threats?
	Stycoline amphibola	Mt Diable cottonweed		Scattered colonies on mudstone outcrops mostly in Greyhound Rock area. some in Scotts Vallev area.	Scotts Valley colonies threatened by housing and golf coarse development.
	Trifolium grayi	West's clover		Colonies at isolated grasslands at Scotts Valley and a few other inland places.	Threatened by hdusing and golf course development.

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 $\label{eq:pft} \textbf{PFT} = \text{Proposed Fed Threatened}$

Marbled Murrelet

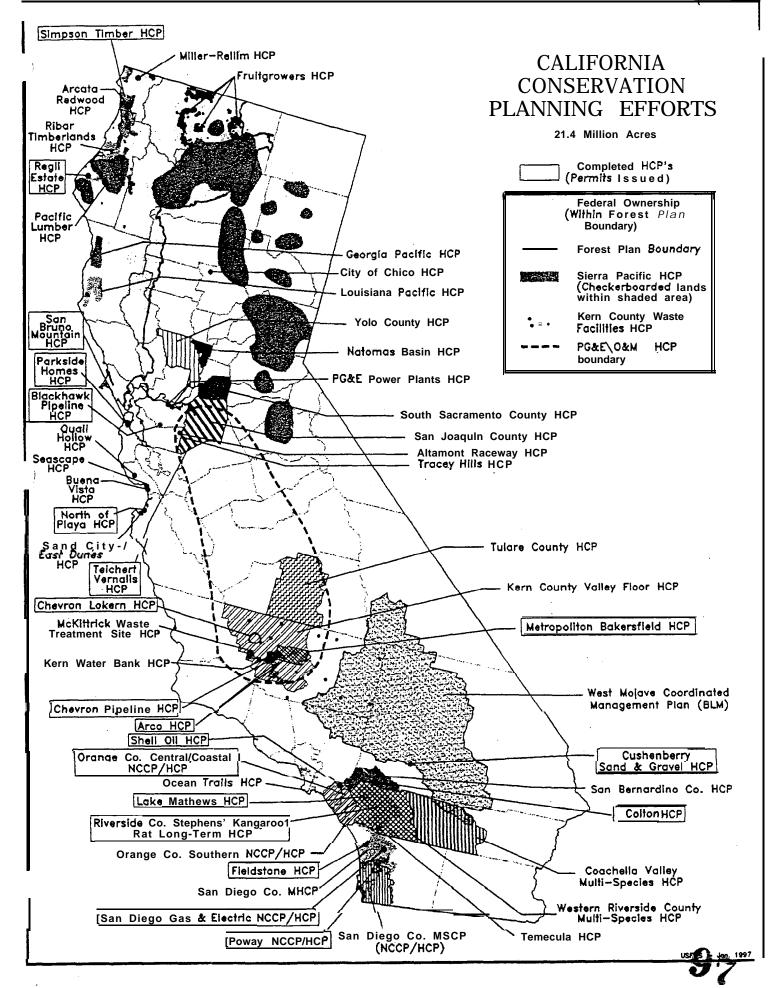


THREATENED, ENDANGERED OR ANIMALS OF SPECIAL CONCERN IN SANTA CRUZ COUNTY

	Updated 8/99		
SPECIES	STATE/-FEDERAL LISTING	SPECIES OF SPECIAL. CONCERN	KEY
SPIDERS AND RELATIVES	The same against the same and t		STATE
Dolloff Cave Spider			SE State listed Endangered
Santa Cruz Teleman Spider			ST State listed Threatened SCE State candidate Endangered
Empire Cave Pseudoscorpion			SCT State candidate Threatened
GASTROPODS			FEDERAL
California Brackish Water Snail			FE Federally listed Endangered
INSECTS			, , , , , , , , , , , , , ,
Barbate (Mt. Herman) June Beetle			FT Federally listed Threatened
Opler's Longhorn Moth			
Monarch Butterfly (wintering sites)	t		FPE Federally proposed Endangered
FISHES			
Coho (Silver) Salmon		Yes	FPT Federally proposed Threatened
Tidewater Goby	FE	Yes	
AMPHIBIANS AND REPTILES		· · · · · · · · · · · · · · · · · · ·	FC Federal candidate
Santa Cruz Long-toed Salamander	SE/FE		
California Red-legged Frog	FE	Yes	
Western Pond Turtle		Yes	t Species fall into one or more
San Francisco Garter Snake	SE/FE		categories:
Horned Lizard		Yes	*Biologically rare, very restricted in distribution or declining throughout
BIRDS			their range.
Bank Swallow	ST		*Species closely associated with a
Black-crowned Night Heron		Yes	habitat that is rapidly declining in
Black Swift		Yes	California.
Brown Pelican	SE/FE		*California population(s) are
Burrowing Owl		Yes	threatened with extirpation.
California Least Tern	SE/FE		
California Tiger Salamander	FE		
Cooper's Hawk		Yes	
Double Crested Cormorant		Yes	
Golden Eagle		Yes	
Ferruginous Hawk		Yes	
Least Bell's Vireo	FE		J. Gr
Marklad Viverslat	COTAT		, J'/

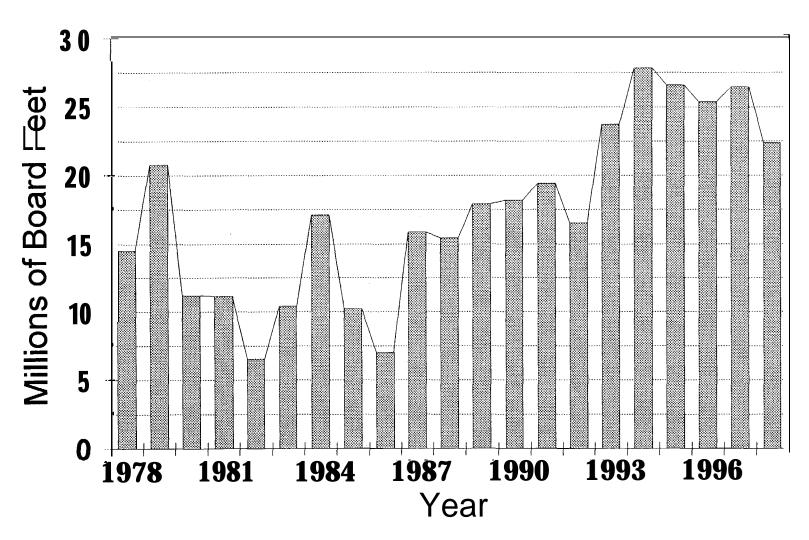
SCT/FT

THREATENED, ENDANGERED OR	ANIMALS OF SPECIA Updated 8/99	L CONCERN IN S
Merlin		Yes
Osprey		Yes
Peregrine Falcon	SE/FE	
Purple Martin		Yes
Sharp-shinned Hawk		Yes
Spotted Owl		Yes
Tricolored Blackbird		Yes
Western Snowy Plover	FT	Yes
Western Yellow Billed Cuckoo	SE	
Willow Flycatcher	SCE	
Yellow Breasted Chat		Yes
Yellow Warbler		Yes
MAMMALS		
American Badger		Yes
Monterey Ornate Shrew		Yes
Northern (Stellar) Sea Lion		
Santa Cruz Harvest Mouse		Yes
Southern Sea Otter	FT	





Volume of Timber Harvested Santa Cruz County 1978-1998



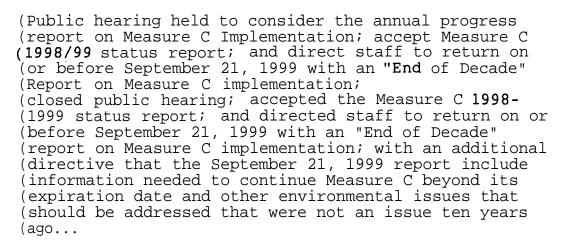
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COUNTY OF SANTA CRUZ

STATE OF CALIFORNIA

AT THE BOARD OF SUPERVISORS MEETING On the Date of June 8, 1999

REGULAR AGENDA Item No. 079



Public hearing held to consider the annual progress report on Measure C Implementation; accept Measure C 1998/99 status report; and direct staff to return on or before September 21, 1999 with an "End of Decade" Report on Measure C implementation;

Closed public hearing;

Upon the motion of Supervisor Wormhoudt, duly seconded by Supervisor Beautz, the Board, by unanimous vote, accepted the Measure C 1998-1999 status report; and directed staff to return on or before September 21, 1999 with an "End of Decade" report on Measure C implementation; with an additional directive that the September 21, 1999 report include information needed to continue Measure C beyond its expiration date and other environmental issues that should be addressed that were not an issue ten years ago

cc:

Each Department Head
Each CAO Analyst
Each City Manager
ACTION-Santa Cruz County
Environmental Council
Sierra Club

State of California, County of Santa Cruz-ss.

by Mccia Murillo I Deputy Clerk, on June 17,

I, Susan A. Mauriello, Ex-officio Clerk of the Board of Supervisors of the County of Santa Cruz, State of California, do hereby certify that the foregoing is a true and correct copy of the order made and entered in the nutes of said Board of Supervisors. In witness thereof I have hereunto set my hand and affixed the al of said Board of Supervisors.