

**County of Santa Cruz Implementation Plan
For
FishNet 4C Goals for County Policies, Planning and Management
Practices**

**That Emerged from
Recommendations in the FishNet 4C Study:
*EFFECTS OF COUNTY LAND USE POLICIES AND MANAGEMENT PRACTICES ON
ANADROMOUS SALMONIDS AND THEIR HABITATS***

FishNet 4C Goal #1 – Critical Fish Streams

Identify and map anadromous fish streams and tributaries throughout each county and make this information available to County staff. Develop a county strategy for prioritizing fishery protection and restoration actions within individual watersheds and throughout the county.

Discussion for County of Santa Cruz. Both state and federal agencies are developing salmonid recovery plans for streams in Santa Cruz County. California Dept of Fish and Game (CDFG) has completed a Draft Coho Recovery Plan; National Marine Fisheries Service (NMFS) has begun work on a recovery plan for steelhead and coho salmon that includes Santa Cruz County.

NMFS has secured funding to develop a Geographic Information Database for steelhead and coho salmon recovery efforts in Santa Cruz and San Mateo counties. While much of this information is available through existing documents and local knowledge, this project may generate new information such as a riparian corridors assessment. This effort should be completed by September 2003. Planning Resources staff will coordinate the distribution and use of this GIS-based information to Planning, Public Works, Parks, Open Space and Cultural Services, and Environmental Health staff, local watershed groups and watershed partners.

Collaborative watershed assessments are in-progress in Scott, San Lorenzo, Arana, Soquel, Aptos and Lower Pajaro watersheds, which include many of the anadromous salmonid streams in Santa Cruz County. These assessments are in various states of completion; most will be completed by 2003. Each assessment will prioritize fishery protection and restoration actions within individual watersheds. When these assessments are completed, Planning will consult with NMFS, CDFG, local watershed groups and other partners such as the Resource Conservation District and Coastal Watershed Council, on the development of a countywide fishery protection and enhancement plan.

County of Santa Cruz Implementation Actions for Critical Fish Streams.

- a. Planning will work with National Marine Fisheries Service and their contractor to develop a GIS map showing anadromous fish streams and tributaries throughout the county.
- b. Planning will make this information available to staff in Planning, Public Works, Environmental Health, Parks, Open Space and Cultural Services, local watershed groups and watershed partners.
- c. Fishery enhancement projects from individual watershed assessments will be summarized into a single, countywide document.
- d. County staff will work with National Marine Fisheries Service, California Dept of Fish and Game, and watershed partners to develop a countywide strategy for fishery protection and restoration, based on existing information from individual watershed assessments.
- e. Appropriate elements of this countywide strategy for fishery protection and restoration will be integrated into the County General Plan update.

Fiscal Impact. These actions can be completed with existing staff. Implementation of projects identified in a countywide strategy for salmonid protection and restoration would require staff time, county resources and other funding.

FishNet 4C Goal #2 – Coastal Zone Protections

Extend coastal zone resource protection policies to non-coastal areas of the counties where applicable and feasible. These policies should include wetland and riparian protection, sensitive habitat protection and grading and erosion control.

Discussion for County of Santa Cruz. In Santa Cruz County, most resource protection policies that exist in the Coastal Zone extend into the non-Coastal Zone areas. These policies include wetland and riparian protection, sensitive habitat protection and grading and erosion control. Staff does not support extending other resource protection policies, such as the Significant Tree Ordinance, to non-coastal zone areas of the county.

County of Santa Cruz Implementation Actions for Coastal Zone Protection. None.

Fiscal Impact. None.

FishNet 4C Goal #3 – Riparian Buffers

Establish riparian protection areas to protect stream function, wherein new development is prohibited. Where feasible, define these areas on the basis of geomorphic floodplain rather than vegetation, recent flooding or arbitrary distances from streams. Enforce protection provisions with implementation ordinances. Develop policies and promote alternative designs that minimize the number of variances issued for riparian setbacks. Seek funds to purchase property or easements in cases where riparian protections make parcels unbuildable.

Discussion for County of Santa Cruz. Riparian areas are protected under the Riparian Corridor Protection Ordinance and the Sensitive Habitats Ordinance. The Riparian Corridor Protection Ordinance protects 50' from the mean high water mark for perennial streams, 30' for intermittent streams, 100' for lakes and wetlands and protects an area on arroyos within the Urban Services Line, depending on slope and site conditions. In areas with riparian woodland, such as the

floodplain of lower Soquel Creek, the ordinance protects an area 50' from the extent of riparian woodland. Riparian corridors are also protected under the Sensitive Habitats Ordinance as a sensitive habitat.

The Riparian Corridor Protection Ordinance does not prohibit new development, but requires a Riparian Exception and planning review for all activities in this area. Riparian Exceptions are issued for additions and bank stabilization projects to protect non-conforming homes near streams.

Altering the existing Riparian Corridor Protection Ordinance to include geomorphic floodplain would be a challenging and expensive process that may result in non-conforming development and an ordinance more difficult to implement. Instead, implementation of the existing ordinance can be strengthened through revisions, prioritization of planning variances, and creation of a riparian corridor inventory showing existing conditions.

County of Santa Cruz Implementation Actions for Riparian Buffers.

- a. Revise the Riparian Corridor Protection Ordinance and Sensitive Habitats Ordinance. Revisions should improve definitions and ordinance language for clarity and ease of implementation. Revision should clarify riparian corridors for arroyos within the Urban Services Line and consider incorporating design standards for bank stabilization projects (see Goal #4). The revision should also maintain flexibility to deal with existing development and “real-world” situations. Revisions should be prepared concurrently with the General Plan update.
- b. Create an inventory of riparian corridors in the county that is updated along with the General Plan.
- c. Clarify guidelines for issuing riparian exceptions.
- d. Consider creation of a conservation easement program that would provide property tax benefits for property owners that protect or enhance the riparian corridor on their properties.

Fiscal Impact. Improving the implementation of the existing Riparian Corridor Protection Ordinance through revisions and the prioritization of variances could be completed with existing staff and resources. The creation of a Riparian Corridor inventory would probably require outside funding and expertise, but these may be available through the National Marine Fisheries Service grant mentioned in Goal #1. Better enforcement of the existing ordinance will require additional code compliance staff for more pro-active enforcement.

A riparian conservation easement program would result in a modest reduction in property tax revenues. However, this investment would be offset by protection of sensitive species, better compliance with the Endangered Species Act and the Clean Water Act (through the Total Daily Maximum Load –TMDL requirements), and other benefits such as reduced bank erosion.

FishNet 4C Goal #4 – Bank Stabilization

Promote alternatives to conventional bank stabilization for public and private projects and require evaluation of alternatives through the County permit process. Consider a review procedure in the form of a post implementation audit to see how projects were done. Address cumulative effects of channel hardening in this review.

County of Santa Cruz Implementation Actions for Bank Stabilization.

- a. Implement the Calif Dept of Fish and Game’s SB271 Grant - Santa Cruz County Stream Habitat Outreach Program - that includes a workshop for county and local engineers to learn about the design and construction of fish-friendly bank stabilization projects.
- b. Develop and implement additional outreach and incentive programs to local engineers and residents for alternative bank stabilization designs. Outreach could include a brochure that describes alternative bank stabilization designs.
- c. Public Works and Parks will participate in training opportunities for alternative bank stabilization techniques.
- d. Public Works and Parks will consider alternative bank stabilization techniques on all projects and will implement where feasible and appropriate.
- e. Consider incorporating design standards into revision of the Riparian Corridor Protection Ordinance.
- f. Retain an intern to evaluate Riparian Exceptions and numerate what types of projects are being applied for. This analysis could evaluate cumulative impacts and determine whether certain stream reaches have a greater number of bank stabilization projects.

Fiscal Impact. Most of these actions can be completed with existing staff. Minimal fiscal impact to print brochure for fish-friendly bank stabilization designs. Incorporating woody material and other biotechnical techniques into Public Works bank stabilization projects could increase design and implementation costs initially, but may reduce bank stabilization projects costs over the long-term.

FishNet 4C Goal #5 – Grading and Erosion Control

- 1) Develop grading and erosion control standards supported by ordinances to minimize sediment impacts to anadromous streams. Provide adequate staff to enforce grading and erosion control ordinances.

Discussion for County of Santa Cruz. The County has both an Erosion Control and Grading Ordinance. With the current level of development applications and code compliance violations, there is inadequate staff to enforce grading and erosion control ordinances. Grading review has become more complex as development occurs on marginal parcels that are often steep, and have geologic concerns. Grading permits often require the review of a resource planner, civil engineer and geologist.

Public Works has a half-time position responsible for erosion control issues. See Goal #6 - Winter Grading for additional discussion and implementation actions related to grading and erosion control.

County of Santa Cruz Implementation Actions for Grading and Erosion Control.

- a. Provide adequate number of trained staff to review grading and erosion control applications in a timely manner.

- b. Provide adequate number of trained staff to resolve grading and erosion control violations.
- c. Revise requirement checklist for grading and erosion control so applicants have a better understanding of requirements.
- d. Require identification of fill disposal site prior to issuing grading permit.
- e. Parks, Open Space and Cultural Services will address erosion problems at County parks as necessary.
- f. Public Works will continue to identify staff that is responsible for working on erosion control issues.
- g. Public Works will pursue funding to address erosion control problems at old road repair sites.
- h. Establish a system for emergency response to large grading and erosion control violations during non-business hours.

Fiscal Impact. If permit applications continue at a high rate, providing adequate staff to review grading and erosion control applications may require hiring one additional Resource Planner in the Environmental Planning Section. Revision of the Erosion Control and Grading Application Requirement Checklist could be completed with existing staff.

FishNet 4C Goal #6 – Wintertime Grading

Minimize winter grading. Improve enforcement to eliminate impacts of wintertime grading. Emphasize erosion control measures over sediment control.

Discussion for County of Santa Cruz. Winter grading is minimized through requirements in the Grading and Erosion Control Ordinances. Environmental Planning has increased the detail required on erosion control plans to adequately evaluate their effectiveness. For example, plans must show the location a proposed silt-fence. This more detailed review will focus on erosion control (preventing soil movement) not sediment control (preventing eroded soil from moving off-site).

County of Santa Cruz Implementation Actions for Wintertime Grading.

- a. Create a plan-sheet showing details for a number of erosion control techniques. Checked items on the sheet will be included as part of the permit requirements. Erosion control technique details are available through Public Works' Erosion Control Training Grant.
- b. Each August, Planning Department will work with Public Works to identify projects that need Winter Grading Approval.
- c. In late summer, Planning will send out a form letter to applicants reminding them they must have erosion control supplies ready at the site, and that erosion control plans must be implemented prior to October 15th.
- d. Provide training to building inspection staff to watch for erosion control problems.
- e. Develop a flyer about erosion control requirements and techniques that building inspectors could leave at properties that need attention.

Fiscal Impact. Most of these actions can be implemented with existing staff. Erosion control details are available through the Erosion Control Maintenance Standards grant with Public Works. There may be a cost of producing plan sheets for applicants if this cost is not incorporated in the permit fees. Minimal fiscal impact to produce and send out letters on active

development permits. If flyer about erosion control requirements and techniques cannot be completed with existing staff, Planning Department could apply for grant.

FishNet 4C Goal #7 – Watershed Groups

Counties should support and be active members of multi-stakeholder groups working on watershed issues. Identify County staff to participate in these collaborative processes.

Discussion for County of Santa Cruz. Planning, Environmental Health, and Public Works support and are active members of multi-stakeholder groups working on watershed issues. Environmental Health is managing the update of the San Lorenzo Watershed Plan and the San Lorenzo Steelhead Enhancement Plan. Public Works will conduct a roads inventory as part of the Soquel Creek Watershed Assessment and San Lorenzo Watershed Plan Update. Staff has been identified to participate in these collaborative processes. Swanton Road is the only county-maintained road in the Scott Creek Watershed, which supports a run of coho salmon. The Scott Creek Watershed Council completed a road inventory in the watershed, which included Swanton Road. The Watershed Council has actively solicited the county to make drainage and road improvements to reduce potential sedimentation into Scott Creek.

County of Santa Cruz Implementation Actions.

- a. Continue to support and participate in multi-stakeholders watershed processes.
- b. Public Works will develop a work program to address drainage and erosion concerns on Swanton Road, identified in a watershed road inventory completed by the Scott Creek Watershed Council.
- c. Public Works will work with other watershed groups to implement high priority projects associated with county roads that have been identified in watershed assessments.

Fiscal Impact. Participation and support can be accomplished with existing staff. Erosion and drainage improvements on Swanton Road should be a component of Public Works' Culvert Replacement Program. Involvement in watershed groups may generate more interest in fishery enhancement projects, which could have an unknown future fiscal impact on the County.

FishNet 4C Goal #8 – Instream Flows

Support efforts and develop county programs to protect and increase instream flows for anadromous fish. County efforts could include base flow monitoring, protesting water rights, and working with water districts on conservation issues. Where appropriate, Counties should participate in regional water management planning. Counties should also have policies to minimize impervious surfaces and promote surface water retention. Counties could require CEQA review for large wells. Counties should condition development which would divert or store surface water, on the applicants having received appropriate rights from the State Water Resources Control Board.

Discussion for County of Santa Cruz. The County participates in regional water management planning. Planning and Environmental Health participate on both the Interagency Water Resources Working Group and the Santa Margarita Groundwater Basin Advisory Committee. In addition, the County has participated in regional planning efforts with the City of Santa Cruz, Soquel Creek Water District, and the Pajaro Valley Water Management District. The County is helping to fund a joint project with the Soquel Creek Water District to investigate groundwater and streamflow interactions.

Local watershed assessments for San Lorenzo, Soquel and Aptos creeks will address streamflow reductions and its potential impacts on salmonids. Planning and Environmental Health staff contributes to and participates in these watershed assessments.

Through the General Plan, the County requires that, in water supply and groundwater recharge watershed zones, post-project runoff cannot exceed pre-project runoff. Planning and Public Works have begun discussions on developing design standards for retention.

Over the past few years, Public Works has increased their review of drainage plans for development. Public Works plans to remove the drainage fee cap of \$3,000 to encourage property owners to reduce the amount of impervious surface.

The County already requires CEQA review for large wells. The recommendation regarding conditioning development on appropriate rights is not applicable to development within Santa Cruz County because most large development projects rely on established water purveyors instead of their own water supply.

County of Santa Cruz Implementation Actions for Instream Flows.

- a. Continue to support regional water management planning.
- b. Continue to work with water districts on conservation issues.
- c. Continue to protest water rights applications so that conditions of approval are incorporated into water rights.
- d. Develop a strategic plan to evaluate baseflow in different stream basins over the next 10 years.
- e. Develop design standards and guidelines to minimize impervious surfaces and promote surface water retention.
- f. Remove Public Works drainage fee cap of \$3,000 to encourage property owners to reduce the amount of impervious surface.
- g. Include Best Management Practices for drainage and retention as part of NPDES phase II compliance, effective in March 2003.
- h. Strengthen and clarify the roles of drainage review between Public Works and Planning.

Fiscal Impact: These actions can be implemented with existing staff. Removing the drainage fee cap will increase fee revenues.

FishNet 4C Goal #9 – Decommissioning

Develop a program or policies for identifying especially unsuitable existing development, infrastructure and road segments affecting anadromous fish streams. Consider options and opportunities for gradually eliminating them.

Discussion for County of Santa Cruz. Currently, the County has an informal program to decommission unsuitable infrastructure and road segments. A few road segments have been informally identified as especially unsuitable for anadromous salmonids; however, no work has been done to calculate the costs of mitigating them. Public Works has submitted a grant to evaluate existing road crossings (infrastructure) that are barriers to fish passage.

County of Santa Cruz Implementation Actions for Decommissioning.

- a. Public Works will continue efforts to identify and mitigate existing infrastructure that are barriers to fish passage (see Goal #15).
- b. Parks, Open Space and Cultural Services will ensure that recreational use of the San Lorenzo River is appropriately mitigated.
- c. Public Works and Planning staff will prepare a list of especially unsuitable existing development, infrastructure and road segments affecting anadromous fish streams.
- d. The County will consider options and opportunities for gradually mitigating or eliminating them.

Fiscal Impact: The development of a list of especially unsuitable existing development, infrastructure and road segments affecting anadromous fish streams will require a minimum of staff time. Grants to eliminate existing development, infrastructure and road segments would require a match contribution from the County in staff time, funding, or both.

FishNet 4C Goal #10 – Lagoon Breaching

Evaluate lagoon breaching policies where it is conducted within each county. If warranted by study findings, adopt policies and implementation procedures that mitigate impacts to anadromous fish.

Discussion for County of Santa Cruz. The only County property with a lagoon is Scott Creek. It is not the policy of Parks, Open Space and Cultural Services to breach the lagoon under any circumstances. Public Works has a five-year agreement with several agencies, including Army Corps of Engineers and Coastal Commission, to breach the Pajaro River lagoon under specific circumstances.

County of Santa Cruz Implementation Actions for Lagoon Breaching.

- a. Support efforts by the City of Santa Cruz, City of Capitola and State Parks to manage lagoons to benefit anadromous fish.

Fiscal Impact. None expected.

FishNet 4C Goal #11 – Road Maintenance Standards

Develop and adopt written standards for county road management practices, under both routine and emergency conditions. These standards should include guidelines for road maintenance and construction that minimize sedimentation and runoff impacts, and address storage and disposal of spoils, stream crossings, culvert diversion potential, fish passage, and landslide and slope repair. County staff should participate in training for the implementation of roads, culverts and maintenance practice standards, developed to minimize impacts to the fishery.

Discussion for County of Santa Cruz. Public Works has received a California Dept of Fish and Game SB271 grant to develop Erosion Control Maintenance Standards and train staff in its implementation. Public Works has an upcoming grant to provide additional training in erosion control techniques. In addition, FishNet 4C has a grant to assist all six counties in the development of road maintenance standards

County of Santa Cruz Implementation Actions for Road Maintenance Standards.

- a. Complete development of written standards for County Road Management Practices, under both routine and emergency conditions.
- b. Participate in training for the implementation of roads, culverts and maintenance practice standards.
- c. Institute a system for annual training for new staff on County Road Management Practices.
- d. Public Works will provide adequate maintenance staff to prevent failures during storm events.
- e. Public Works will increase maintenance practices, such as the Culvert Replacement Program, to reduce erosion and sedimentation resulting from failures.
- f. Continue to advocate to FEMA for policy changes that would benefit salmonid habitat.

Fiscal Impact: Most of these implementation actions can be accomplished with current grant funding, existing staff and funding (e.g. Culvert Replacement Program). Public Works will need to consider additional maintenance staff to adequately maintain culverts during storm events.

FishNet 4C Goal #12 - Emergency Projects

Review how storm-damage-related road, culvert, and bank stabilization projects were installed under emergency conditions, compared to non-emergency installations.

County of Santa Cruz Implementation Actions for Emergency Projects.

- a. Public Works and Planning will review how storm-damage related road, culvert, and bank stabilization projects were installed under emergency conditions, compared to non-emergency installations. This review will evaluate if written standards for emergency conditions developed under Goal #11 were followed and effective.

Fiscal Impact. If this review is limited in scope, for example, reviewing 15 regular projects and 15 emergency projects, than it could be accomplished with existing staff. A more thorough review may require additional funding, such as a grant, to complete.

FishNet 4C Goal #13 - Spoils Storage

Establish adequate spoils storage sites throughout the counties so that material from landslides and road maintenance can be stored safely away from anadromous streams. Coordinate these efforts with CalTrans.

Discussion for County of Santa Cruz. By November 30, 2001, Public Works will coordinate a meeting with Maintenance, Real Property, and Planning Department staff to discuss ideas for locating and permitting a minimum of one spoils disposal site in the County. The meeting will discuss purchase or lease of quarry property, and will develop an action plan for pursuing ideas. Staff will be identified to conduct follow up tasks and, if appropriate, to apply for a grant. If necessary, Public Works will apply to appropriate funding agencies for a grant to better develop options for spoils site disposal.

County of Santa Cruz Implementation Actions for Spoils Storage.

- a. Develop a strategic plan for locating and permitting a minimum of one spoils disposal site in the County.

- b. Public Works will identify sites for stockpiling spoils to reuse in projects.

Fiscal Impact. If Public Works is able to devote staff time to develop a strategic plan, than it could be accomplished with existing staff. Most likely, the development of a strategic plan will require funding, such as a grant, which will require a match contribution from the County. The purchase or long-term lease of a spoils disposal site will be a substantial investment; however, over time, this investment will save the considerable cost of disposing of spoils material at landfills.

FishNet 4C Goal #14 - Channel and Riparian Corridor Clearing

Reduce native riparian vegetation clearing and sediment removal adjacent to and in anadromous fish streams. Retain large woody debris within streams to the extent possible. When woody material is removed it should be stored and made available for stream enhancement projects.

Discussion for County of Santa Cruz. Public Works is responsible for any clearing conducted in association with flood control zones, including Zone 4. Public Works has recently hired staff for a new Maintenance IV position responsible for Zone 4 clearing. Public Works has maintenance agreements with the California Dept of Fish and Game for clearing in association with bridge and flood control maintenance. Soquel Drive Bridge replacement may provide an opportunity to re-evaluate woody material and riparian vegetation management upstream of the bridge.

County of Santa Cruz Implementation Actions for Channel and Riparian Corridor Clearing.

- a. Public Works will obtain necessary permits for riparian vegetation clearing, and sediment and woody material removal.
- b. Public Works will identify sites for woody material storage to be used in streambank stabilization or restoration projects.

Fiscal Impact. Reduction of native vegetation clearing, and sediment and woody material removal will save maintenance costs. Reduction of native vegetation clearing, and sediment and woody material removal could decrease or increase liability exposure depending on the specific program reforms and agreements with resource agencies.

FishNet 4C Goal #15 – Fish Migration Barriers

Develop a program to identify, evaluate and prioritize County facilities that are barriers to salmonid migration. Develop a systematic program to seek funding for replacement of these identified fish passage barriers. Commit to sending county staff to training on fish passage guidelines and culvert design according to new NMFS and CDFG standards.

Discussion for County of Santa Cruz. Public Works and Planning have submitted a grant proposal to California Department of Fish and Game to evaluate county road stream crossing for passage problems. The grant proposal includes funding for initial design on a few passage barriers. Public Works is working on the design, permitting and funding of two fish passage mitigation projects on Bonny Doon Road. Community Action Board's Natural Resources Employment Program has received Santa Cruz County Stream Enhancement Fund monies to contract the design of a fish ladder for Valencia Creek at Soquel Drive. The County has submitted a grant proposal to design a fish passage mitigation project at Ben Lomond Dam.

County of Santa Cruz Implementation Actions for Fish Migration Barriers.

- a. Public Works staff will participate in the fish passage training workshops in the Fall 2001 sponsored jointly by FishNet 4C, NMFS and California Dept of Fish and Game.
- b. If the County does not receive a grant from the California Dept of Fish and Game, Public Works will address fish migration barriers with existing staff and/or other grant applications.
- c. When existing permits expire for the Ben Lomond Dam, the County will evaluate new permit requirements and possible mitigation.

Fiscal Impact. Funding is available to mitigate passage barriers for steelhead and coho. Grants and funding will most likely require a match contribution from the County as staff time, equipment, materials or cash.