3. WATER QUALITY

Overview

The Coastal Act requires the protection of water quality through several policies. Section 30230 of the Act requires that marine resources be protected, maintained, and, where feasible, restored. The biological productivity of coastal waters, including streams, estuaries, and wetlands, must be maintained. Requirements include controlling runoff and waste discharges to protect water quality, maintaining groundwater supplies and stream flows in order to sustain the biological productivity of coastal waters, and minimizing the alteration of riparian habitats and streams (Sections 30231 and 30240). The San Luis Obispo County LCP incorporates these objectives primarily through controlling erosion and sedimentation, protecting the integrity of groundwater basins, and protecting the hydrological systems and ecosystems of coastal streams.

Since certification of the LCP, the state has adopted a new plan for dealing with nonpoint source pollution (the *Plan for California's Nonpoint Source Pollution Control Program).* This new plan resulted from amendments to both the Clean Water Act and the federal Coastal Zone Management Act, requiring that states better address nonpoint source pollution. This plan is discussed in more detail below. For the protection of water quality, the *Preliminary Report* of the San Luis Obispo LCP evaluated the LCP in light of the new nonpoint source plan, and recommended updating the LCP as necessary to bring it into conformance with the adopted State plan. The *Preliminary Report* assessed the management of nonpoint source pollution in three main issue areas: agricultural development and operations, urban and rural development, and marinas and boating areas.[35] Comments on the *Preliminary Report* indicate a need to clarify the objectives of the new nonpoint source plan, and the roles and responsibilities of the various agencies, particularly the County, in implementing the plan. The County also expressed concern with the cost of implementing many of the recommendations in the *Preliminary Report*. The following discussion provides a general overview of the state's nonpoint source plan, the roles of the various agencies involved, and funding issues. A more specific discussion of the comments raised for the three issue areas follows.

California's Nonpoint Source Pollution Control Program:

As noted above, development of this statewide nonpoint source plan resulted from amendments to the Clean Water Act and the Coastal Zone Management Act. Specifically, 1987 amendments to the Clean Water Act require states to develop assessment reports that describe the states' nonpoint source problems and establish management measures to address those problems. Through the 1990 amendments to the Coastal Zone Management Act, Congress identified nonpoint source pollution as a significant factor contributing to coastal water degradation; the amendments require that the state, through a partnership between the coastal and water quality programs, address nonpoint source pollution that affects coastal waters. While there are

[35] Managing nonpoint source pollution from hydromodification and to wetland areas are addressed through the ESHA and New Development Chapters of the *Preliminary Report*. There are no areas in the San Luis Obispo County's coastal zone where nonpoint source pollution from forestry activities is expected to be a significant issue.

numerous agencies and regulations in California that play a role in the protection of water quality, the federal Clean Water Act, the state Porter-Cologne Act, the federal Coastal Zone Management Act, and the state Coastal Act are the primary laws guiding California's water quality protection program.

The State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB), and the California Coastal Commission (CCC) are the lead agencies for implementation of the nonpoint source plan. Accordingly, the CCC and the SWRCB worked jointly with a variety of stakeholder groups to develop the state's nonpoint source pollution plan, which was formally adopted in 2000. The primary underlying goal of the nonpoint source plan is to ensure protection of the State's water quality. The plan details 61 management measures aimed at addressing nonpoint source pollution from a variety of land use activities under six major categories (agriculture, forestry, urban areas, marinas and recreational boating, hydromodification, and wetlands/riparian areas/vegetated treatment systems). The management measures serve as general goals for the control and prevention of polluted runoff. Site-specific best management practices are then used to achieve the goals of each management measure. The plan recognizes that full realization of all 61 management measure goals throughout California will require the participation of all state, local, and federal agencies, as well as other public and private interests, and will include a mix of regulatory and non-regulatory mechanisms.

A Memorandum of Understanding (MOU) between the SWRCB and the CCC was executed as part of the plan. Although the two agencies have worked side-by-side to complete the nonpoint source pollution plan, they do have different mandates and priorities, so an important benefit of the MOU is that it commits the agencies to continue working together to implement the plan. For example, the SWRCB and CCC have agreed to cooperatively review, update or execute new Management Agency Agreements and MOUs with other agencies as needed to ensure that the plan is followed. This is important because the success of the nonpoint source pollution plan is ultimately dependent on the active participation of a wide spectrum of government agencies with nonpoint source pollution responsibilities and land use authorities. The involvement of private parties whose activities and decisions affect water quality everyday, of course, is also critical.

As discussed further in the nonpoint source plan, implementation will occur through a variety of mechanisms, including:

- a regulatory component to implement many of the management measures;
- a landuse planning and redevelopment component;
- a specific water quality/land use program component;
- a monitoring and evaluation component to track and assess implementation of the management measures and their effectiveness;
- coordination with public and private partners, including local, state, and federal agencies, to implement the nonpoint source plan, including integration of existing water quality protection efforts;
- an education and public participation component; and

- a funding component.

The plan is based upon the use of existing authorities and regulatory processes to achieve implementation. In part, it relies on the implementation of Coastal Act policies and programs within the coastal zone. A primary land use planning authority for implementing these policies is a local coastal program (LCP), which must be certified by the CCC. A corollary regulatory authority for implementing the policies is through the issuance of development permits in the coastal zone, either by the Commission where there is no LCP or by local jurisdictions with certified LCPs. At five-year intervals, the State's plan is to be evaluated to determine if adequate progress is being made in nonpoint source pollution control. If there is no demonstrable progress, additional regulatory actions and authorities for improving implementation of management measures may be considered.

Thus, the State plan anticipates that the CCC will work with its local partners to ensure that appropriate management measures and best management practices (BMPs) are fully considered and incorporated into planning and development proposals in the coastal zone. Local jurisdictions therefore are being asked to employ the various tools that they have available to them to advance this overall effort aimed at protecting and restoring coastal water quality. In part, this includes revising LCP policies and ordinances to reflect the State plan's management measures and to incorporate new scientific information and improved technologies for better control of polluted runoff. The Commission notes that consideration of management measures and implementation of appropriate BMPs may not add significantly to the cost of development, depending on the specific circumstances. Moreover, various sources of supplemental funding to help underwrite the costs of implementing nonpoint source pollution control measures are available, including federal and state grants and low interest loans. While full implementation of the State's plan will take years to complete, it is essential that state, local and federal government agencies begin taking action now toward that end.

Accordingly, the recommendations as modified and outlined below should be incorporated into the San Luis Obispo LCP to provide a framework for building a comprehensive water quality program at the local level, consistent with the State's nonpoint source plan.

LCP Review and Incorporation of Nonpoint Source Plan:

Since the LCP provides the regulatory and planning standards for development in the County's coastal zone, the water quality section of the Periodic Review evaluated the LCP to determine whether it was sufficient to protect coastal water quality consistent with Coastal Act Sections 30230 and 30231 in light of the new nonpoint source plan. The Preliminary Report summarized this review for the issue areas of agriculture, urban, and boating areas in Appendix D (NPS Management Measures – Preliminary Assessment). This appendix detailed the management measures from the nonpoint source plan, preliminarily identified existing language from the LCP which addressed each management measure, and where necessary, suggested modifications to implement the management measures.

Although the *Preliminary Report* did not intend to suggest that all modifications would lead to new regulations, comments received indicate that this was the general perception. The *Preliminary Report* intended to begin the process of establishing the roles that San Luis Obispo can play in support of a broader, regional water quality program. As noted above, implementation of a comprehensive water quality program at the local level will also require a variety of non-regulatory components. To clarify the recommendations in Appendix D, the language of the preliminary recommendations is revised and replaces Appendix D with specific recommendations incorporated into each issue area. The detailed recommendations are discussed for agriculture, urban, and boating areas in the sections below.

A second concern raised by the County in its review of the *Preliminary Report* was the need to clarify the County's roles and responsibilities in implementing the nonpoint source plan. The roles of the major players are discussed below. A significant aspect to implementing the plan at the local level will be ongoing coordination with the state and regional water boards and with the Coastal Commission.

Major Roles in Water Quality Protection:

Generally, the state's nonpoint source plan identifies four main categories of implementing agencies: 1) federal and state land management and regulatory agencies, which have authority to implement management practices statewide; 2) federal and state assistance agencies, which provide technical or financial assistance to support implementation of management practices; 3) local land use agencies with authority to enforce implementation of management practices locally; and 4) local assistance agencies which provide technical or financial assistance to implement management practices.

Under the adopted nonpoint source plan, the State commits to providing assistance though funding when available as well as management practice manuals, training, assistance in developing ordinances and regulations, assessment monitoring, and modeling to predict the effectiveness of source pollution management measures. The nonpoint source pollution program will depend largely on funding received through Section 319 of the Clean Water Act, State appropriations, and the contributions of local governments, non-governmental organizations, private individuals and other entities.

State and Regional Water Boards: The State Water Resource Control Board (SWRCB) and its Regional Board counterparts are responsible for carrying out the mandates of the Clean Water Act, including the adoption of water quality standards for approval by the U.S. EPA. Requirements under the Clean Water Act also include assessing nonpoint source pollution problems and their causes, and adopting management programs to control nonpoint source pollution. Under the Act, states additionally must identify surface waters that do not attain water quality standards (303d impaired list), and establish total maximum daily loads (TMDLs) for these impaired water bodies. The TMDL process establishes allowable levels of pollution for

waterbodies, which will achieve water quality standards, and implements methods for achieving those pollution levels.

The state's Porter-Cologne Act, which established the State and Regional Water Boards, also charges these agencies with key responsibilities for protecting water quality in California. Under the Act, the Water Boards implement many of the provisions of the Clean Water Act, regulate discharges, and implement the National Pollution Discharge Elimination System (NPDES) program, which regulates significant point discharges to California's waters. The Water Boards also develop water quality control plans, also known as basin plans, which establish beneficial uses for specific water bodies and identify water quality objectives to protect beneficial uses. The Water Boards have adopted a "three-tiered" approach to ensure that water quality objectives are achieved, starting with voluntary efforts and culminating with enforcement under the Porter-Cologne Act, if necessary. Tier 1 focuses on self-determined implementation of best management practices (BMPs) to address nonpoint source pollution. The self-determined tier supports landowner choice in the type of BMP integrated into land management and development. Tier 2 focuses on regulatory-based encouragement of BMP implementation, and Tier 3 establishes effluent limitations and enforcement mechanisms. In practice, the Water Boards will determine which, or what combination, of the three options will be used to address any given nonpoint source pollution problem. Sequential movement through the tiers (e.g., Tier 1 to Tier 2 to Tier 3) is not required. Depending on the water quality impacts and severity of the nonpoint source pollution problem, the Water Boards may move directly to the enforcement actions specified in Tier 3.

The SWRCB also implements the Watershed Management Initiative, a non-regulatory program to implement unique solutions to water quality problems for each watershed, and supports community-based watershed plans through financial and technical assistance.

California Coastal Commission: The Coastal Commission is responsible for carrying out mandates of both the federal Coastal Zone Management Act and the California Coastal Act. In 1990 amendments to the Coastal Zone Management Act, Congress identified nonpoint source pollution as a significant factor contributing to coastal water degradation. The resulting amendments require all coastal states, through partnerships between their water quality and coastal programs, to develop comprehensive plans for addressing nonpoint source pollution that affects coastal waters. California's coastal program includes not only the Commission's direct application of Coastal Act policies but also local jurisdictions' implementation of Local Coastal Programs (LCPs) that the Commission has certified as being consistent with the Coastal Act. The Commission's primary roles in protecting water quality are to: a) ensure that Local Coastal Programs adequately protect water quality; b) regulate development in areas without a certified LCP and act on appeals of local decisions to assure, in part, the protection of water quality; and c) provide technical and educational assistance to local governments.

As one of the lead agencies for implementing the nonpoint source plan within the coastal zone, the Coastal Commission also has responsibility to assure nonpoint source pollution protection at the local level. The Coastal Commission has identified numerous actions within the nonpoint

source plan that they will complete to assist local governments to develop and implement nonpoint source control programs. For example, under the nonpoint source plan, the Commission has committed to:

- support and expand the Model Urban Runoff Program;
- provide funding for LCP updates through the Local Assistance Program;
- provide guidance to local agencies on methods to incorporate the goals of the nonpoint source plan into LCP updates;
- develop and promote new information regarding BMP effectiveness and selection;
- support watershed planning in priority Critical Coastal Areas
- expand water quality public education programs;
- participate in regional multi-agency program development;
- participate in streamline permitting efforts where appropriate;
- support the Boating Clean and Green Campaign; and
- take a lead role in coordinating the efforts of State agencies to implement the nonpoint source plan.

Many of these efforts have begun but will be expanded and improved as the State proceeds towards full implementation of the nonpoint source plan.

Local Governments: The local land use planning and regulatory functions of each county and city also play an important role in addressing nonpoint source pollution. Each local government's General Plan and zoning ordinances, in addition to its LCP, guide development within its jurisdiction; these plans can help assure that development is located and carried out in a manner that protects water resources. In addition, the permitting processes of each jurisdiction play a key role in preventing or mitigating impacts to resources, and thus are critical mechanisms for implementation of nonpoint source pollution management measures. This is particularly true after a local jurisdiction has had coastal development permit authority delegated to it upon certification of an LCP. In addition, in order to comprehensively avoid or minimize impacts to water quality in the coastal zone, local governments also usually need to explore options for addressing nonpoint source pollution issues within entire watersheds.

Again, as previously noted, some aspects of addressing nonpoint source pollution may include non-regulatory components, may depend on coordination among various agencies and/or private parties, and may extend beyond the coastal zone boundary. Where the local government relies on non-regulatory programs to ensure compliance with the State nonpoint source plan in the coastal zone, the County's role may be to initiate and/or coordinate planning, educational, and assessment efforts. However, the County retains a responsibility under the Coastal Act for assuring the protection of coastal waters.

The County is encouraged in Recommendation 3-7 to begin developing watershed plans for priority watersheds. Priority watersheds should be portions of the County with known water quality problems, or where development pressures are such that nonpoint source pollution can be

anticipated to be a major concern. Protecting water quality throughout a watershed, particularly through enforceable plans and zoning ordinances coupled with robust educational programs, can have significant economic and environmental value for the coast in general and local communities in particular. The Commission is presently working to update the Critical Coastal Areas prioritization process within the State's plan to reflect the importance of multi-agency/ stakeholder watershed planning for protecting water quality and coastal resources.

Many of the management measures adopted in the State's nonpoint source pollution plan rely on public education and participation programs rather than through regulations for implementation. The Commission agrees that such programs play a crucial role in protecting water quality for many land uses and that many of the programs being implemented within San Luis Obispo County reflect the best of these efforts. The Commission supports the inclusion of such programs in the LCP where appropriate to help fulfill the County's role in addressing nonpoint source pollution. The County should, however, demonstrate how such programs will be supported and how success will be documented to ensure that coastal water quality goals and objectives are met. Such targeting and assessment measures should be outlined within the revised Watershed and Water Quality chapter of the LCP as recommended in 3-7 and include guidance on how the County will assure they meet needs throughout the County. Certainly the Coastal Commission and Water Boards should be consulted for assistance in such an effort.

Community-Based Programs: Community-based programs to develop watershed plans can also play an important role in addressing water quality issues. These programs will generally involve the coordination and participation of multiple agencies and private groups. A primary example of a community-based program in San Luis Obispo County is the Morro Bay National Estuary Program's Management Plan for Morro Bay. This plan was developed with the input of numerous parties, and identifies nonpoint source pollution issues and recommended corrective actions for the Morro Bay watershed.

Recommendations for the LCP:

To achieve the goals outlined in the State's nonpoint source plan, and to assure that the LCP is implemented consistent with Sections 30230 and 30231 of the Coastal Act, the Commission recommends a number of changes to the County's LCP. Most of the recommendations in the *Preliminary Report* as modified in this report are designed to update existing policies or ordinances with current standards, and/or to include policies and ordinances to implement many of the management measures identified in the nonpoint source plan. However, the Commission also recommends that the LCP be updated to provide an overall framework for implementing a comprehensive water quality protection program through Recommendation 3-7. This recommendation emphasizes the development of watershed plans for water basins and/or planning areas, but also states "[t]o better facilitate the protection of marine resources and water quality, the existing LCP watershed chapter could be expanded to develop a comprehensive water quality component of the LCP. … The watershed chapter should incorporate the

management measures, and mechanisms to implement those management measures, in the *Plan for California's Nonpoint Source Pollution Control Program"*.

As with the statewide nonpoint source plan, a comprehensive plan to address water quality at the local level will necessitate a planning component, a regulatory component, and a funding options component, as well as coordination among existing efforts and various agencies, public participation and education, and ongoing evaluation of the effectiveness of the local program. To provide greater detail for developing a comprehensive water quality component, the Commission deletes Recommendation 3-7 from the *Preliminary Report*, and replaces it with the following recommendation:

Recommendation 3-7a: Update Chapter 9 (Coastal Watersheds) of LCP to provide the framework for a comprehensive Watershed and Water Quality Protection component of the LCP. The chapter should include the following elements:

- a revised introduction to reflect the new knowledge and concern of nonpoint source pollution since 1988, including the recently adopted statewide nonpoint source pollution plan, which forms the basis for protection of water quality from nonpoint source pollution;
- a discussion of the need for watershed based policies and programs, including non-regulatory programs, to fully address water quality issues;
- updated goals and objectives for water quality protection (see following list of goals for guidance);
- modifications to existing policies and ordinances, as discussed in modified Recommendations 3-1 through 3-13;
- a program to encourage watershed planning (see discussion below);
- a program that requires the County to participate in water quality sampling and/or monitoring to measure water quality conditions and the effectiveness of management measures taken to reduce nonpoint source pollution.

As guidance for developing the LCP Watershed and Water Quality Component, the Commission suggests the following:

The chapter should include development of findings of fact, for the basis for specific policies, ordinances, and programs. These findings could be developed to include such provisions as the following:

The County finds that uncontrolled drainage and development of land has a significant adverse impact upon the health, safety and welfare of the community. More specifically,

k) Nonpoint source runoff can carry pollutants into receiving water bodies, degrading water quality;
l) The increase in nutrients such as phosphorus and nitrogen accelerates eutrophication of receiving waters, adversely affecting flora and fauna;
m) Improperly channeling water may increase erosion or lead to excess sedimentation;
n) Construction requiring the alteration of natural topography and removal of vegetation may increase erosion or lead to excess sedimentation;
o) Excess sedimentation (siltation) of water bodies resulting from increased erosion decreases their capacity to hold and transport water, interferes with navigation, and harms flora and fauna;
p) Impervious surfaces increase the volume and rate of stormwater runoff and allow less water to percolate into the soil, thereby decreasing groundwater recharge;
q) Improperly managed stormwater runoff can increase the incidence and extent of flooding, damaging habitat, as well as endangering property and human life;

r) Improperly managed stormwater runoff can interfere with the maintenance of optimum salinity in estuarine areas, thereby disrupting biological productivity;
s) Substantial economic losses result from these adverse impacts on community waters;
t) Many future problems can be avoided if land is developed in accordance with sound stormwater runoff management practices.

The chapter should include suggested goals and objectives. These goals and objectives could include such provisions as the following:

a) To protect, restore and maintain the chemical, physical and biological integrity of coastal waters;
b) To minimize harm to the community by activities that adversely affect water resources;
c) To encourage the construction of drainage systems which aesthetically and functionally approximate natural systems;
d) To encourage the protection of natural systems and the use of them in ways that do not impair their beneficial functioning;
e) To encourage the use of drainage systems that minimize the consumption of electrical energy or petroleum fuels to move water, remove pollutants, or maintain the systems;
f) To minimize the transport of pollutants to coastal waters;
g) To maintain or restore groundwater levels;
h) To protect, maintain or restore natural salinity levels in estuarine areas;
i) To minimize excess erosion and sedimentation;
j) To prevent damage to wetlands;
k) To prevent damage from flooding, while recognizing that natural fluctuations in water levels are beneficial; and
l) To protect, restore and maintain the habitat of fish and wildlife.

Included in the chapter should be policies such as the following:

a) New development shall be designed to maintain predevelopment hydrological conditions to the maximum extent practicable.
b) New development shall protect the absorption, purifying and retentive functions of natural systems that exist on a site and shall, where possible, restore natural drainage systems.
c) New development shall minimize pollutant loads.
d) New development shall minimize impervious surfaces.

The chapter should also include standards and ordinance provisions to implement the policies. These standards could include such provisions as follows:

a) New development shall implement Best management Practices (BMPs) necessary to accommodate runoff from the 85th percentile storm runoffs as defined by the BMP Design Goal and assure that development maintains peak runoff rates and volumes similar to pre-development rates.[36]
b) Development shall minimize site disturbance by clustering building site locations and placing roads along contours.
c) To reduce impervious surfaces, permeable materials shall be used where possible for driveways and walkways. Walkways and driveways shall be limited to the smallest functional size.

[36] The BMP Design Goals is the size of a storm event that is used (along with other information) to determine the size of a structural BMP. Considering the long-run records of local storm events, the 85th percentile event would be larger than or equal to 85% of the storms. The 85th percentile storm can be determined by reviewing local precipitation data or relying on estimates by regulatory agencies. For example, the Los Angeles Regional Water Quality Control Board has determined that 0.75 inch is an adequate estimate of the 85th percentile, 24-hour storm event for typical municipal land uses within its jurisdiction.

d) A water quality control plan shall be required for projects and activities that require land sue permits or a grading permit. (See Recommendations 3-6c, Urban and Rural Development section).

Watershed Planning

As noted above, watershed planning is a critical element of managing nonpoint source pollution and protecting water quality. Recommendation 3-7 and suggested modifications in Appendix D of the *Preliminary Report* as modified in this report recommend that watershed planning be incorporated into the LCP. The County expressed concerns over the costs associated with such a planning effort and the implications that the County would be solely responsible for developing and implementing watershed plans. In addition, the County and public comments raised a concern that the Commission would extend its jurisdiction beyond the coastal zone boundary through this recommendation.

County role in Watershed Planning and Funding:
The Commission agrees that the development and implementation of successful watershed plans necessarily involves a number of players. The current Morro Bay National Estuary Program Comprehensive Conservation and Management Plan provides one example of a comprehensive watershed management plan, and the coordinated effort necessary to accomplish such a plan. This plan has been a major effort in the County, addressing a variety of land use activities, including urban uses, to address nonpoint source pollution and improve water quality. Clearly, a substantial infusion of federal funding from the U.S. EPA was essential to its completion.

Granted, the County should not be looked to as the sole player in such efforts. Nonetheless, the County must be involved and can play an important role in initiating and coordinating the development of such plans. As found in the Avila Beach Specific Plan, the Commission recommended that the County "coordinate the development and implementation of a comprehensive watershed management program designed to protect the water quality of the entire watershed …". As detailed below, the Commission modifies the language of the *Preliminary Report* recommendation to clarify the County's role in watershed planning.

Again, implementation of many elements of a nonpoint source plan will depend on adequate support and funding. As noted previously, the Commission intends to work with its Water Board partners to support the development and implementation of watershed plans within "Critical Coastal Areas" that will be designated as part of the State's nonpoint source plan. Such support will include the coordination of numerous state agencies and identification of available resources, both technical and financial. Exhibit E identifies a variety of grant programs available to local governments for coastal zone management, including these types of watershed plans.

Jurisdiction:
The Commission recognizes that the LCP governs only those lands within the coastal zone. The State nonpoint source plan does not extend the coastal zone boundary or change the Commission's authority under the California Coastal Management Program. However, the

coastal zone boundary does not follow watershed boundaries, and, as a result, activities inland of the coastal zone can lead to polluted runoff and degradation of water quality within the coastal zone. Several public comments also spoke to this concern. Under the Coastal Act, the County has responsibility to protect waters in the coastal zone. To achieve this, sources of degradation both within and outside of the coastal zone boundary must be identified and addressed. Although the Commission cannot require the County to undertake watershed planning outside the coastal zone boundaries, the Commission finds it is appropriate to include a program in the LCP to undertake such planning efforts in order to address *all* sources of water quality degradation to coastal waters.

To address the concerns raised, the Commission deletes Recommendation 3-7 from the *Preliminary Report*, and replaces it with the following Recommendation:

Recommendation 3-7b:

The LCP should be updated to include a program to encourage watershed planning, including a finding that watershed planning is necessary to fully address water quality impacts inside the coastal zone. Watershed planning may require the participation and coordination of various agencies. Through this program, the County should facilitate watershed planning efforts by:

- identifying priority watersheds or subwatersheds for watershed planning, consistent with criteria established for determining critical coastal areas. Priority areas should focus initially on watersheds with known water quality problems, or where development pressures are such that nonpoint source pollution can be anticipated to be a major concern;
- ensuring full public participation in the development of the plan;
- assessing land uses in the priority areas that degrade coastal water quality;
- pursuing funds to support the development of watershed plans; and
- participating in intergovernmental efforts for watershed planning.

General Components of a watershed plan (to guide implementation by many agencies) should include:

- Purpose and Objectives of the Plan;
- Description of approval process, including identification of participating stakeholders, and any required agreements or MOUs;
- Description of the Watershed, including description and data on such items as physical, hydrologic, climatic and natural resource features, land uses, types of land cover, water body use and classification, water body standards, natural and cultural resources, economic base, population demographics, farm demographics, governmental units;
- Resources Inventory
- Problem Identification, describing the specific water resource management problems including the sources and causes of impairment of point sources, nonpoint sources, physical and chemical pollutants, and problems or impediments;
- Problem Analysis, including an assessment of the cumulative impacts of development on water quality and hydrology in order to designate areas to further emphasize on site management of runoff;
- Alternative Management Strategies, including identifying specific measures to minimize the cumulative impact of new development on the watershed and avoiding the alteration of natural drainage patterns; using BMPs, proposed land use changes, structural solutions, and financial incentives; identifying which areas of the watershed which, if restored, could improve

water quality; integrating agriculture management measures including developing watershed specific nutrient and pesticide management programs

- Preparation of Draft Water Resources Management Plan;
- Monitoring and Evaluation Component to evaluate the effectiveness of BMPs used to control polluted runoff;
- Implementation Funding Strategy and Budget;
- Public Participation and Educational Strategy

A. Water Quality Impacts from Agriculture

1. Summary of *Preliminary Periodic Review* Findings (Exhibit A, pg. 77-82)

As discussed in more detail in the *Preliminary Report*, agriculture is a major land use throughout the County. Historically, agriculture has also been one of the major sources of nonpoint source pollution and water quality degradation throughout the country, although the impact from agricultural operations can vary significantly, depending on such variables as climate, geography, and on specific agricultural practices. In general, the primary water quality concerns raised with agriculture are erosion and sedimentation, runoff polluted with pesticides, and nutrient loadings.

The San Luis Obispo County LCP currently has several policies regarding water quality and agriculture: generally, the policies encourage proper soil conservation and grazing techniques, and require that erosion be minimized through accepted management practices. However, many of the agricultural activities that occur in the County's coastal zone are not regulated under the LCP. Grading permits are not required for "agricultural cultivation activities including preparation of land for cultivation, other than grading for roadwork or pads for structures" (Ordinance 23.05.026). In addition, permits are not required for crop production and grazing, where defined as an allowable use under the LCP, "except where more than one-half acre of native vegetation is proposed to be mechanically removed" (Ordinance 23.03.040(d)(9)).

As discussed in the section above, the State's *Plan for California's Nonpoint Source Pollution Control Program* details numerous management measures to address nonpoint source pollution concerns, including those raised from agricultural activities. The *Preliminary Report* found that under continued implementation of the LCP, nonpoint source pollution would likely continue to degrade coastal water quality. The *Preliminary Report* found that: 1) the LCP needed to be updated in light of current information and best management practices, and 2) it lacked specific mechanisms to address some of the sources of nonpoint source pollution identified in the State's nonpoint source pollution plan. The preliminary recommendations focused on incorporating mechanisms to implement the State's plan, and included:

- minor language changes to existing policies, reflecting more current review criteria (e.g. change references from 208 standards to more current basin plan standards);
- ordinance language modifications to better address polluted runoff from animal raising facilities;

- modification to the exemption from grading permit requirements;
- programmatic development of mechanisms to address nonpoint source pollution from grazing practices, nutrients, pesticides, and irrigation practices.

2. Comments Raised

San Luis Obispo County Response (Exhibit C):
Comments focused on the need to include a discussion of existing programs throughout the County which address aspects of water quality protection, and the need to target educational efforts to address nonpoint source pollution from agricultural activities. The County also requested clarification on the recommended modifications to address nonpoint source pollution from agricultural activities, referred to through Appendix D. In addition, the County also disagreed with the accuracy of the discussion of pesticide use in the *Preliminary Report*.

Public Comments (Exhibit D):
Most comments raised with regard to this issue focused on 1) statements that agriculture is not a major source of erosion or sedimentation, and 2) that numerous voluntary programs are being implemented throughout the County to address nonpoint source pollution from agricultural activities, negating the need for additional regulatory measures under the LCP. However, comments from South Bay residents indicated a concern with degraded water quality from runoff into Dune Lakes, Oso Flaco Lake, and Black Lake, due, in part, to nearby agricultural activities.

Other comments included: 1) concern over the definition of feedlots and if/when the proposed changes to the ordinance would affect agricultural operations; 2) inappropriate data regarding pesticide use and inadequate discussion of existing regulatory requirements; 3) concern over inadequate monitoring of water quality, particularly for pesticide contamination; and 4) concern over changes to the exemption from grading permits which would result in setbacks from streams and wetland areas, causing a loss of agricultural land. The comments also indicated that many of the suggested recommendations detailed in Appendix D were not sufficiently clear, and were misunderstood to be requirements for new regulations, raising significant concerns about the economic impact of new regulations and the impact to ongoing agricultural operations. These comments are discussed in more detail below.

Specific Clarifications/Errata:
Delete sentence on page 77 “Finally the water in San Bernardo Creek is known to be contaminated with coliform from cattle.” Data source is 1986. More current data does not indicate water quality degradation in San Bernardo Creek.

Page 77 of the *Preliminary Report* will be modified to indicate that while agriculture and grazing are suspected sources of siltation in San Carpoforo Creek according to data from the California Rivers Assessment Program, through the University of California, Davis, the agricultural community has stated that the cause of siltation is from landslides on Forest Service property.

3. Analysis

Sources of Nonpoint Source Pollution and Existing Efforts to address Nonpoint Source Pollution

The statewide nonpoint source pollution plan cites that according to the US EPA, "agriculture contributes more than half of the pollution entering the Nation's water bodies".[37] While this figure is not quantified specifically for San Luis Obispo County, existing data and planning efforts also cite that agriculture is *one source* of nonpoint source pollution in the County. These examples include the current watershed planning efforts in the Morro Bay watershed through the National Estuary Program, the U.C. Davis California River's Assessment Project, and EPA's 1998 303(d) list of impaired water bodies.

While not the sole source of nonpoint source pollution, agriculture is an important factor to consider in protecting water quality, particularly since it is one of the primary land uses within the County. The Commission agrees that to adequately address water quality impacts, better information is necessary to document the specific causes of water quality degradation in each watershed or subwatershed. For example, comments were raised that monitoring of coastal waters does not indicate any water quality concerns regarding pesticide runoff. However, other comments raised the concern of inadequate monitoring of coastal waters, both in general, and for pesticides in particular. As discussed in the Preliminary Report, ongoing and complete monitoring has not been undertaken to evaluate the presence of pesticides in the County's streams and estuaries, although the RWQCB has recently begun conducting more ambient water quality monitoring, including some monitoring for pesticides. The watershed planning process discussed under Recommendation 3-7 in the Preliminary Report, and in the previous section, provides an opportunity to update existing information and improve documentation of the critical sources of nonpoint source pollution for each watershed.

Since publication of the Preliminary Report, the Commission has received additional information on a number of voluntary programs and existing regulations that are being implemented throughout the County to address nonpoint source pollution concerns. The comments received by Commission staff from the agricultural community stated that these programs were already addressing concerns over nonpoint source pollution from agricultural activities, and should continue to be implemented without additional requirements. The following examples illustrate some of the voluntary ongoing efforts to address water quality issues in the County.

Short Courses on Water Quality Protection: Several "short courses" focusing on grazing and farmland management are offered through U.C. Cooperative Extension Services; these courses focus on voluntarily implementing management measures and practices to control nonpoint source pollution from agricultural operations. Classes on rangeland management began in 1995; classes to address issues on farmlands are in the final stages of being developed through a pilot

[37] State Water Resources Control Board and California Coastal Commission. *Plan for California's Nonpoint Source Pollution Control Program.* January 2000. pg. 88.

program. The goal of both courses is to complete a management plan with low-cost mechanisms to address nonpoint source pollution. Both courses have five main components: identifying resources on the site (physical and natural); documenting current agricultural practices; a self assessment procedure of nonpoint source pollution issues and goal-setting; identifying future practices and implementing measures to address nonpoint source pollution; and assessing future practices. The evaluation of nonpoint source pollution includes numerous factors, including sedimentation and erosion; impacts to riparian and wetland areas; nutrient loading/location of grazing/feeding/watering areas; reduction of pesticide use/integrated pest management (IPM) practices; and salinity concerns.[38]

U.C. Extension estimates that approximately 20-25% of the ranchers in the County have taken a rangeland management short course, and approximately half of those have completed a draft management plan for their property. The Regional Water Quality Control Board, San Luis Obispo County Farm Bureau, and the Department of Fish and Game also participate in these short courses.

Vineyards: In addition to the above short courses, the Central Coast Vineyard Team encourages sustainable agriculture in Santa Cruz, San Luis Obispo, Santa Barbara Counties. This nonprofit has developed a self-assessment questionnaire for vintners addressing a variety of environmental and water-quality concerns. Evaluation elements include pest management, protection of surface and ground water quality, minimizing soil erosion, and habitat conservation.[39]

The Positive Points System, the questionnaire developed by the Central Coast Vineyard Team, addresses several environmental issues commonly associated with agriculture: protecting surface and ground water quality, minimizing soil erosion, reducing risks associated with pesticides and agricultural chemicals, protecting worker safety, eliminating drift, and conserving habitat within the vineyard. Through the questionnaire, the team has evaluated an estimated 15,000 acres of vineyards for sustainability throughout the Central Coast. Through use of the questionnaires and additional educational efforts, the growers have implemented many changes and improvements to their practices, improving protection of resources and water quality. In addition, the Vineyard Team will start implementing demonstration projects this year to further educational efforts.[40]

Morro Bay National Estuary Program: Through a joint project involving the Morro Bay National Estuary Program, the Bay Foundation of Morro Bay, the Regional Water Quality Control Board, the U.S. EPA, and local communities, the Comprehensive Conservation and Management Plan for Morro Bay was recently completed; the primary objective of the plan is to develop actions to address water quality degradation. The Morro Bay plan resulted from an extensive, long-term planning process, and includes an action plan to address the priority issues of sedimentation, bacteria, nutrients, loss of freshwater flows, heavy metals and toxic pollutants, habitat, and loss of steelhead. Implementation of the plan will involve a variety of measures,

[38] Royce Larson and Mary Bianchi, U.C. Extension. Pers. comm. April, 2001.
[39] Central Coast Vineyard Team. *Positive Points System*. Fall, 2000.
[40] Kris O'Connor, Executive Director. Central Coast Vineyard Team. Pers. comm. April, 2001.

including ongoing educational efforts and collaboration with resource management and regulatory agencies.[41] Although implementation of the action items detailed in the plan will occur over a long timeframe, numerous best management practices to reduce sedimentation levels have already been implemented throughout the watershed through the Morro Bay Watershed Enhancement Project.[42]

NRCS/RCD: The Natural Resource Conservation Service and Resource Conservation Districts both provide a variety of technical and financial assistance to landowners, operators, or tenants to address resource protection and implement BMPs. Measures include cost-sharing programs and/or grants to landowners to undertake conservation practices. Examples of projects in the Morro Bay watershed include the Chorro Flats restoration project and the Maino Ranch grazing management project. Agriculturists may work with NRCS/RCD to get financial assistance to implement management measures identified through a management plan developed during the short courses discussed above. Funding assistance has also been provided to begin implementation of some management practices detailed in the Morro Bay National Estuary Program. Numerous other organizations throughout the County also have programs and projects that relate to the protection of water quality.

The Commission believes that these efforts are an important component of protecting water quality, and should continue to be used and expanded to address nonpoint source pollution from existing agricultural operations. Many of the recommendations suggested in the *Preliminary Report* to implement the management measures in the state's nonpoint source plan were envisioned to focus on non-regulatory, educational programs similar to those discussed above. One important exception is the Commission's recommendation to modify the grading exemptions in the LCP; this recommendation and proposed modifications to the recommendation are discussed below (see *Changes to grading exemption*).

To assure that voluntary efforts are adequate to implement the State's nonpoint source pollution plan, and protect coastal water quality as required under the Coastal Act (and other applicable laws), the Commission finds that the County, in consultation with NRCS/RCDs, should document and track the success of these programs. The Commission modifies Recommendation 3-2 to add a program to the LCP which continues the use of educational efforts to address nonpoint source pollution, and to require the County to assess the effectiveness of those efforts in reducing and preventing nonpoint source prevention. (See Recommendation 3-2a.)

[41] Morro Bay National Estuary Program, et al. *Turning the Tide for Morro Bay*. Working Draft Comprehensive Conservation and Management Plan for Morro Bay. April, 2000. pg. 1-16.
[42] Ibid. Pg. 2-35.

Pesticide Use and Regulation

A number of the voluntary efforts discussed above address impacts to water quality from pesticides. In addition, the California Department of Pesticide Regulation (DPR) regulates pesticide use in California. Prior to a pesticide being sold or used in California, it must be evaluated and registered by DPR. The evaluation process includes an assessment of environmental effects for the proposed chemical. The County Agriculture Commissioner implements the pesticide regulations for San Luis Obispo County.

All pesticide use must be reported to the County Agricultural Commissioner who forwards monthly reports to DPR. Pesticides are classified either as "restricted" or "non-restricted". To use a "restricted" pesticide, a user must obtain a permit from the County Agricultural Commissioner. Through the review and permit process, the Commissioner can encourage the use of alternative products, use of integrated pest management techniques, can condition the use of the product to mitigate potential environmental impacts (e.g., to assure adequate buffers between application areas and streams), or can deny use of the chemical. Such conditions depend on the specific chemical and specifics of the site. Chemicals also have restrictions on labels that must be followed to mitigate environmental impacts.[43] "Non-restricted" chemicals do not require a permit for use, but the application must still be reported to the county agricultural commissioner. The County, however, cannot condition the use of non-restricted chemicals.

DPR is also proposing to modify its regulations to improve protection of groundwater resources. The proposed changes include: declaring additional pesticides to be restricted materials and requiring specific management practices for their use; identifying "groundwater protection areas"[44] and requiring permits for use of pesticides in those areas, whether for agricultural, outdoor industrial, or outdoor institutional uses; requiring training in groundwater protection before a permit for use can be issued; and adopting a wellhead protection program.[45]

A number of comments were raised regarding the accuracy of pesticide data in the *Preliminary Report*. Comments state that the discussion on pages 78-79 of the *Preliminary Report* is speculative and fails to acknowledge that sampling data does not indicate any water degradation through pesticides in coastal waters of the County. This comment was raised in part from the statement in the *Preliminary Report* that "pesticides will be carried into coastal waters through storm water runoff regardless of whether the initial application of the pesticide is within the coastal zone or inland of the coastal zone boundary". The comments requested modifying the paragraph to focus on actual pesticide use in the coastal zone. Comments also question the estimates of pesticide use cited from Californians for Pesticide Reform and data in Table 3-1

[43] Department of Pesticide Regulation, Pesticide Use Reporting Overview. From www.cdpr.ca.gov. Ouwerkerk, Brenda. Manager, Pesticide Enforcement Program for San Luis Obispo County. Pers comm. March, 2001.
[44] Groundwater protection areas are defined as areas sensitive to the movement of pesticides to groundwater (from DPR's website, Groundwater Protection Program).
[45] Proposed changes to Title 3, Division 6, Chapter 1. From DPR's website, Groundwater Protection Program (www.cdpr.ca.gov/docs/empm/gwp_prog/gwreg.pdf).

(Change in Pesticide Use and Farm Acreage for Selected Crops, San Luis Obispo County, 1993-1998).

As noted previously, and in the *Preliminary Report*, comprehensive water quality monitoring, particularly for pesticide contamination in the coastal zone, has not been done. Therefore, while there is minimal information documenting water quality degradation from pesticides in the coastal zone, information is equally lacking regarding the actual status of water quality. The watershed planning discussed in the previous section could address this information gap. To address comments raised, the text will be modified to clarify the limitations of the data used and the lack of specific data for the coastal zone.

Regarding Table 3-1, this information was compiled using data from the Department of Pesticide Regulation's pesticide use reporting requirements. Under the Department of Pesticide Regulation's requirements, all substances used as pesticides are reported, regardless of the potential for, and degree of, environmental impacts. Comments from agriculturists in the County note that the dramatic increase of pesticide use for avocados was due to the presence of two new pests in 1997 and 1998. In addition, a significant percentage of the total amount of pesticide use may be from substances such as petroleum oil and sugar, and may be substances certified as organic. Table 3-1 will be clarified.

Changes to grading exemption for agricultural operations

One of the management measures under the State's nonpoint source pollution plan is the protection of sensitive areas (such as streambanks, wetlands, and estuaries) on rangelands. To implement this measure, the Preliminary Report recommended, in part, modifying the existing agricultural exemptions for grading permits in the LCP to exclude areas immediately adjacent to coastal steams and wetlands (Management Measure 3, Table D-1, Appendix D). Although the preliminary recommendation does not specify the measure to implement this change, preliminary recommendation 5-10 in the agricultural chapter of the Preliminary Report proposed, in part, review of agricultural grading within 100 feet of coastal streams or waters.

The agricultural community indicated that this change would, in effect, prohibit agricultural activities within 100 feet of streams or other waterbodies, due to LCP policies and ordinances addressing ESHA, and would result in a significant loss of agricultural lands. Agriculturists also stated that a uniform setback is inappropriate and dependent on the specific nature of the site and agricultural operation, that water quality concerns could be addressed through various management measures, and that a number of voluntary programs already address water quality concerns (see above discussion). The proposed modification was also interpreted by the community to require fencing of riparian areas in some cases. The Commission estimates that a 100 foot buffer around all blue-line streams on agriculturally zoned land would encompass approximately 10,700 acres, or approximately 9% of land zoned as agriculture under the LCP.

The preliminary recommendation was not designed to preclude all agricultural use within 100 feet of a coastal stream or other waterbody, but sought to assure that erosion, sedimentation, and loss of riparian habitat were addressed. While the Commission recognizes the voluntary efforts being undertaken by many agriculturists in the County, the Commission finds that for water quality to be adequately protected, review of new agricultural grading which poses a risk to water quality – or other environmental resources – should occur under the LCP. While the LCP – and the Coastal Act – define grading as "development", requiring a permit, the LCP exempts most grading associated with agricultural operations.

The Commission proposes to modify the LCP to require grading permits for new agricultural grading where grading: a) occurs within 100 ft of ESHA, b) removes significant trees or more than ¼ acre of native vegetation, or c) occurs on slopes over 30%. This modification does not, however, necessarily prohibit grading in these cases; it simply requires that a permit be obtained. Tillage of existing agricultural fields is not considered to be development that triggers a grading permit and maintenance of existing agricultural roads will be exempt from requiring a grading permit. Grading on slopes under 30%, if designed per NRCS standards, will also be exempt from permit requirements. These requirements will not be applied retroactively to existing agricultural operations.

To streamline the regulatory process, the Commission recommends adoption in the LCP of a program that encourage NRCS, or other agencies, to prepare general program(s) to address erosion and sedimentation in various regions of the County's coastal zone. The program should consist of the construction and/or installation of BMPs to implement the management measures for agricultural activities in the State's nonpoint source pollution plan. To track implementation of the nonpoint source program, the agency should provide annual reports to the County that identify the measures taken to reduce and/or prevent nonpoint source pollution. Once certified that the program complies with *all* resource protection policies under the Coastal Act and LCP, implementation of specific projects under the certified program would be exempt from permit requirements. Certification of the program could occur through County review and issuance of a master permit; through an LCP amendment, incorporating the program into the LCP; or through the Commission's federal consistency review.

LCP Ordinance 23.05.034 (c), which requires that no development occur within 100 ft. of an ESHA must also be amended to allow future agricultural grading within 100 ft. of an ESHA. The Commission therefore proposes modifying this ordinance to allow grading for agricultural cultivation within 100 feet of an ESHA, where grading is designed to avoid adverse impacts to coastal resources.

These recommendations are similar to actions taken by other local jurisdictions to address environmental impacts and nonpoint source pollution from agricultural grading. For example, as discussed in Chapter 5 of the *Preliminary Report*, both Napa County and Sonoma County have a regulatory review program, and establish certain criteria and limitations, for the development of vineyards. San Diego County has also recently begun requiring grading permits for agricultural grading. Similarly, the Commission anticipates that these recommendations will improve the

County's protection of water quality and other coastal resources, and allow flexibility in the specific design criteria for agricultural grading operations. The specific recommendation language (modified Recommendations 3-2b – 3-2d) is detailed below.

Definition of Feedlots and Effect on Grazing Operations

PR 3-1 includes proposed changes to LCP Ordinance 23.08.046(c)(2) to improve water quality protection from animal raising activities. Management Measure 3 in Table D-1, Appendix D, also recommends modifying ordinance 23.08.046 to address contaminated runoff from "confined animal facilities". Since the LCP does not use the term "confined animal facilities", concerns were raised by agriculturists about the meaning of this term. Agriculturists were concerned that this would result in additional permit requirements that would affect general grazing practices or other livestock operations, particularly where calves are kept in confined areas for a limited period of time as a standard part of grazing operations.

The reference to confined animal facilities in the *Preliminary Report* comes from the management measures in the State's nonpoint source plan, and in that context is intended to address water quality concerns related to situations where animals are kept at a density which could lead to significant degradation to water quality or other coastal resources. However, the LCP does define animal raising and keeping activities (Framework for Planning pg. 6-40 and Ordinance 23.08.046) and specialized animal facilities (Framework for Planning pg. 6-58 and Ordinance 23.08.052). Ordinance 23.08.046 currently requires a permit for animal keeping, including measures to "avoid soil erosion and sedimentation caused by keeping of animals and plans for animal waste disposal. These requirements also apply to activities defined as specialized animal facilities, along with additional standards. The intent of the recommendations in the *Preliminary Report* is to update existing requirements in the LCP and CZLUO to control runoff from animal raising and keeping and specialized animal activities with more current language adequate to implement the nonpoint source plan. The Commission recommends updating the ordinance as proposed under PR 3-1, referencing animal raising and keeping activities as currently defined in the LCP.

The Commission does not propose to add confined animal facilities to the ordinance, and the modification under Appendix D will not be included. The recommendation would modify Ordinance 23.08.046 and, as applicable, Ordinance 23.08.052 to require that *where a permit is already required* for "animal raising and keeping" and "specialized animal facilities", the applicant a) must assure that contaminated runoff be contained at all times and that b) storage facilities are constructed to prevent seepage of runoff into groundwater and are sized for adequate capacity.

To address the concerns raised in the Preliminary Report, the Commission proposes the following recommendations which incorporate changes to the preliminary recommendations, as discussed above:

Recommendation 3-1: Modify and adopt the following polices and standards in the LCP. (***Bold italics*** indicate new language; strikeouts indicate language proposed to be removed.)

Agriculture Policy 8: Proper soil conservation techniques and grazing methods should be encouraged in accordance with ~~208 Water Quality Standards~~ ***Basin Plan receiving water objectives*** adopted to meet the water quality requirements of the California Regional Water Quality Control Board.

Coastal Watershed Policy 14: Proper soil conservation techniques and grazing methods shall to the maximum extent feasible be employed in accordance with ~~208 water quality standards~~ ***Basin Plan receiving water objectives*** adopted by the California Water Quality Control Board.

Ordinance 23.08.046 c(2): Application content. Where this section requires land use permit approval for a specific animal raising activity, the permit application shall include the following in addition to all information required by Sections 23.02.030 …

(i) Site drainage patterns and a statement of measures proposed by the applicant to avoid soil erosion and sedimentation caused by the keeping of animals.

(ii) The applicant's plans for animal waste disposal***, including plans showing measures to confine runoff, adequate capacity to allow for proper wastewater disposal, and measures to prevent seepage to groundwater***.

(iii) …

e(2): Erosion and Sedimentation control. In no case shall an animal keeping operation be managed or maintained so as to produce sedimentation ***or polluted runoff*** on any public road, adjoining property, or in any drainage channel. …

Similar requirements should be incorporated into CZLUO 23.08.052.

Preliminary Recommendation 3-2 will be deleted and replaced with the following:

Recommendation 3-2~~: Modify LCP to incorporate mechanisms to fully implement the management measures identified in Appendix D. Appendix D identifies preliminary policy alternatives to achieve this goal.~~

Recommendation 3-2a*:* Add program to the LCP encouraging the County to continue supporting educational efforts to address resource impacts from agricultural activities. Efforts should include: a) reducing nonpoint source pollution, including sedimentation, from grazing and other agricultural practices; b) using BMPs and other management strategies to protect habitat areas; c) reducing the contamination of surface waters and groundwater from pesticides; d) reducing water quality degradation from nutrients; and e) reducing nonpoint source pollution caused by irrigation, by encouraging irrigation techniques that conserve water and retain water on-site. The County should use monitoring data and information from watershed planning efforts to target priority locations for educational efforts. In addition, the County should assess and document the effectiveness of educational efforts in preventing and/or minimizing nonpoint source pollution.

Recommendation 3-2b: Amend Ordinance 23.05.026 (d) to modify the exemptions granted from grading permit requirements for agricultural grading. The following grading activities could be exempt from requiring a grading permit, except when associated with grading for roadwork or pads for structures:

- grading of less than 50 cubic yards if Planning Director determines there are no potential impacts to coastal resources;
- tillage of existing agricultural fields;
- maintenance of existing agricultural roads, provided maintenance activities do not widen the road;
- grading further than 100 ft. from ESHA;

- grading which removes no significant trees;
- grading which removes ¼ acre or less of native vegetation,;
- grading on slopes under 30%, if designed per NRCS standards;
- grading performed under a program developed by NRCS or another appropriate agency, that has been reviewed and permitted as outlined in Recommendation 3-2d.

Recommendation 3-2c: Amend Ordinance 23.05.034(c) to allow grading for agricultural cultivation within 100 feet of an ESHA, consistent with the above exemption, if grading is designed to avoid adverse impacts to the ESHA, including preventing polluted runoff into coastal waters and preventing loss of habitat.

Recommendation 3-2d: Add program to Chapter 7 of the LCP (Agriculture) encouraging NRCS or other appropriate agencies to develop program(s) to implement BMPs for agricultural grading activities on agricultural lands. The programs must be certified as consistent with all LCP policies through one of the following mechanisms: a) County review and issuance of a master permit, b) through an LCP amendment, or c) through the Commission's federal consistency review process. Once the program is certified, implementation of specific projects under the program will be exempt from individual grading permits.

4. Conclusion

As discussed in the *Preliminary Report*, the protection of coastal water quality is required under the Coastal Act. Given new information since certification of the LCP in 1988, and a better understanding of the sources of polluted runoff, and impacts to water quality, revisions to the LCP are necessary to find that implementation of the LCP can adequately protect water quality in conformance with Coastal Act Sections 30230 and 30231. After further evaluation and consideration of public comments, pursuant to Coastal Act Section 30519.5, the Commission adopts Recommendations 3-1 – 3-2 a - d as appropriate corrective actions for submission to the County.

B. Water Quality Impacts from Urban Development

1. Summary of *Preliminary Periodic Review* Findings (Exhibit A, pg. 84-92)

The *Preliminary Report* found that urban development could affect water quality through a number of factors, including the location and siting of new development, construction activities, and ongoing water runoff after construction of a development. This ongoing, post-construction runoff is a major new concern in water quality protection since certification of the LCP.

The current LCP addresses nonpoint source pollution primarily through the use of erosion and sedimentation plans and/or drainage plans. The LCP details the situations where such plans are required. A second strategy used by the County is to restrict development on steep slopes. For industrial development, the LCP focuses on ensuring adequate oil spill prevention and cleanup plans.

The *Preliminary Report* found that generally water quality concerns were addressed during the construction phase of project development, although the *Preliminary Report* also noted concerns arising from lack of specific standards to ensure the use of most current best management practices (BMPs). The *Preliminary Report* also found that the LCP policies and standards addressing ongoing runoff after construction of a project were most in need of update. All development, regardless of whether it requires an erosion or grading plan under the LCP, has the potential to affect water quality through post-construction runoff. Most of the preliminary recommendations for urban water quality issues focus on this concern and suggest implementation of the various management measures identified in the state's nonpoint source plan.

The major preliminary recommendations include:

- incorporating measures to address post-construction runoff, including integrating best management practices into project designs;
- adding policies and ordinances to prevent nonpoint source pollution from residential septic systems; and
- incorporating performance standards and monitoring requirements as part of erosion control and sedimentation plans.

The development of watershed plans, also a recommendation under this section, has been discussed previously.

2. Comments Raised

San Luis Obispo County Response (Exhibit C):
The major comments raised regarding this section come from the County, and focus on the need for more information and clarification of the suggested modifications in Appendix D. The County has requested information regarding the proposed modifications to the definition of the wet season and the criteria used for identifying watercourses, as well as clarification of the intent of Preliminary Recommendation 3-11 which prohibits subdivision on slopes over 30%. Additional concerns regarding the roles of the County and various other agencies in water quality protection efforts are discussed in the section above. Finally, although the County does not necessarily disagree with some of the proposed recommendations, they have expressed concerns with the cost of implementation of a number of the proposals. Funding issues and opportunities to implement the State's nonpoint source plan are also discussed in the section above.

Public Comments (Exhibit D):
Public comments raised disagreed with the proposed modifications to the definition of the wet season. Comments stated that the criteria proposed for defining watercourses were undefined and were too expansive. Comments also disagreed that there is a water quality issue from residential septic systems in the Los Osos area.

3. Analysis

Definition of wet season

Preliminary Recommendation 3-8 and proposed modifications under Appendix D suggested modifying the start of the wet season from October 15, to begin October 1. This modification originated from work done through the Model Urban Runoff Program. The County has questioned the need for this change, and the agricultural community strongly opposes the recommended change. Based on subsequent conversations with the Regional Water Quality Control Board, the Commission proposes to keep the current LCP definition of the wet season (October 15 through April 15). Given weather patterns in San Luis Obispo County, staff at the Regional Water Quality Control Board believes the existing criteria are sufficient. Preliminary Recommendation 3-8 therefore is deleted.

Definition of Streams

The LCP requires sedimentation and erosion control plans when land activities are "within 100 feet of a watercourse shown on current 7 ½ minute USGS quad map". Preliminary Recommendation 3-9 proposed adding additional criteria to define a watercourse, including a natural watercourse or drainage system that supports fish, has significant flow 30 days after the last significant storm, or has a channel, free of soil and debris. Several comments noted that the language "has a channel, free of soil and debris" is problematic, as natural streams generally have soil and natural debris. The Commission agrees, and revises the recommendation to exclude this criterion.

In addition, comments noted that the criterion of supporting fish is already covered through blue line streams. As discussed in the ESHA section, the Commission proposed adding criteria to ensure that streams *not* mapped as blue-line streams, but which provide important habitat, are adequately protected. At the same time, comments stated that the proposed revisions sought to "include all stock ponds", raising a concern over the impact to agricultural operations. Commission staff's intent was not to include stock ponds in this recommendation, but to address only streams. Therefore, Commission proposes keeping the criteria of "supporting fish" to identify natural watercourses or drainage systems.

Finally, comments requested a definition of "significant flows" and "significant storms". To assure consistency in implementation, the County could adopt a definition of "significant flows" and "significant storms".

Subdivisions on 30% slope

Preliminary Recommendation 3-11 and one of the suggested modifications in Appendix D states: "Prohibit subdivisions on slopes over 30%". The County has requested clarification whether this

recommended change prohibits all subdivisions on slopes over 30%, or allows subdivisions on slopes over 30%, but prohibits future development from occurring on slopes over 30%.

As discussed in the *Preliminary Report*, Coastal Watershed Policy 8 and Ordinance 23.05.034 establish limits for grading to slopes of less than 20%, but allow exemptions for grading on slopes between 20-30%. As also discussed in the *Preliminary Report*, while subdivisions themselves do not necessarily include grading, the locations approved for new development can have important consequences for future development and for water quality issues. Erosion from steep slopes is a major concern for water quality. Although grading is not permitted on slopes over 30% under the LCP, the County has issued a number of variances, including two subdivision permits which included grading on slopes over 30%.

The Commission finds that to protect water quality, the LCP should prohibit subdivisions which would result in building pads, access roads, or driveways to be located on slopes over 30%, or result in grading on slopes over 30%. In addition, the LCP should require that on slopes over 20%, subdivision applications should include plans locating building pads and access roads so that erosion and sedimentation will be minimized, and should require that future construction maintain pre-development flows by detaining stormwater flows on site or by ensuring that they are no greater than predevelopment flows. Recommendation 3-6a, below, has been modified to reflect these changes.

Residential Septic Systems

The potential water quality impacts from residential septic systems are recognized as an area of concern in the State's plan, and a number of management measures to address polluted runoff from residential septic systems are identified under the plan. The Preliminary Report also identified a number of preliminary recommendations in Appendix D to address those concerns. Problems with water quality degradation from septic systems in the Los Osos area led the RWQCB to impose a septic tank discharge moratorium in January 1988. The RWQCB established a prohibition zone, encompassing most of the urban area of Los Osos, within which most new residential construction or major expansions of existing buildings has been effectively halted until the County provides a solution to the water degradation problem.

Since publication of the Preliminary Report, the Commission staff has undertaken additional research on existing regulations and requirements in San Luis Obispo County which govern residential septic systems. Title 19 of the County code regulates septic systems, and is incorporated into the certified LCP by reference. Many aspects of the management measures identified in the state's nonpoint source plan, and Appendix D of the preliminary report, are addressed through the existing requirements in Title 19. However, a number of standards identified in Appendix D are not addressed in Title 19, and if added, could better protect water quality. These standards are outlined under modified preliminary recommendation 3-6e.

Clarifications to Modifications in Appendix D

The majority of modifications to the preliminary recommendations for this section result from the need to provide more specific detail to the suggested modifications in Appendix D. To avoid confusion between the preliminary recommendations and Appendix D, the Commission deletes the column of "suggested modifications" in Appendix D and replaces it with specific recommendations. The specific language for each recommendation is identified below. In addition, several of the preliminary recommendations have been consolidated. The Commission deletes Preliminary Recommendation 3-10, requiring performance standards and monitoring as part of erosion and sedimentation control plans. The Commission's concerns are addressed through the recommended policy and ordinance language in the proposed modifications to the water quality chapter of the LCP, discussed above, and through the recommended program for the County to participate in ongoing assessment of implementation of the State's plan (Recommendation 3-7). Preliminary Recommendation 3-12 requires development of drainage and pollution control plans that identify BMPs and management measures to mitigate nonpoint source pollution. The Commission modifies this recommendation to include specific requirements and standards, which would also address concerns in preliminary recommendation 3-10.

To address the comments and modifications discussed above, the Commission modifies the preliminary recommendations as follows. Recommendations 3-3 – 3-5 remain substantively unchanged from the preliminary report; the recommendations have been edited to clarify the recommendations and remove unnecessary language. These changes are shown below.

Recommendation 3-3*: Area Plan Updates*. The proposed update of the North Coast Area Plan (January 2000) includes a variety of policies to improve the protection of water quality. These management strategies should be incorporated into the Area Plans. Proposed policies and strategies include~~ing~~: Policies to prohibit point-source discharges into the marine environment; Rural Area Program to designate Areas of Special Biological Significance (ASBS) for protection from development of impacts of any future wastewater outfall structure(s); Improved controls on land divisions and lot line adjustments to minimize the impact of water extraction from riparian creek areas for non-agricultural uses and policies and programs specific to Lodge Hill. The proposed revisions to the North Coast Area Plan Standards offer the opportunity to strengthen the water quality protection provisions of the LCP if expanded to address the issues raised through this review.

Recommendation 3-4: *Expanding Erosion Control Studies*. The County has targeted the Lodge Hill area to reduce erosion in the area ~~problems in the Lodge Hill area~~ and proposes to implement recommendations of ~~the~~ a 1999 erosion control study. These recommendations generally focus on 1) paving roads, and 2) developing a comprehensive master plan for the community. The master plan should design for buildout of the community and incorporate the street drainage network into the plan. ~~The report notes that until such a plan is developed, "critical lots should be identified that could provide storm water infrastructure, or are at extreme risk due to their location in a drainage path. The County could target these lots for purchase in order to development a system for storm water management …." ~~In general, implementing the study's recommendations could reduce erosion and sedimentation, and improve water quality in Lodge Hill. The comprehensive plan, though, should also address drainage issues from road paving, and should encourage infiltration of water and maintenance of the natural flow regime, to the extent feasible, by encouraging dispersal of sheet flow from roads into natural vegetated areas. The County should also incorporate measures to site development to retain forest cover.

Recommendation 3-5: ***Address Post-Construction Runoff*****.** ~~While the County's pending grading ordinance revision proposes some new and revised measures to improve the management of erosion, sedimentation, and runoff, it does not fully address all the potential sources of nonpoint source pollution from new development as identified through the management measures in Appendix D, including measures to address post-construction runoff. The Model Urban Runoff Program (MURP), a joint program among the Commission, Monterey Bay Sanctuary, the Regional Water Board, and the Cities of Monterey and Santa Cruz, has developed a~~ Incorporate into the planning process the following checklist of three questions, developed through the Model Urban Runoff Program, to help coastal planners identify and mitigate water quality impacts of proposed development (see Table 3-2, below). ~~One alternative for improving management of polluted runoff is to incorporate this tool into the planning process to identify when additional measures must be taken to fully address water quality impacts and to trigger additional measures if review of the checklists identifies potential water degradation from the proposed development. The MURP has also developed cost effective mechanisms to address many of the management measures identified in Appendix D.~~

Table 3-2: Water Quality Checklist

1. Would the proposal result in changes in soil infiltration rates, drainage patterns, or the rate and amount of surface runoff?
2. Would the proposal result in discharge into surface waters or wetlands or other alteration of surface water/wetland quality (e.g., temperature, dissolved oxygen, or turbidity)?
3. Would the proposal result in impacts to groundwater quality?

If the proposed project raises water quality issues based on the above questions, or other review, best management practices (BMPs) should ~~could~~ be incorporated into the project design to address post-construction runoff. ~~Assuring the appropriate design goals is critical for the successful function of BMPs in removing pollutants in stormwater. The majority of runoff is generated from small storms. Additionally, storm water runoff typically conveys a disproportionate amount of pollutants in the initial period that runoff is generated during a storm event. Designing BMPs for the small more frequent storms, rather than for the large infrequent storms, results in improved BMP performance at lower cost.~~

~~The Commission has previously found that sizing post-construction BMPs to accommodate the runoff from the 85th percentile storm runoff is often appropriate to address runoff concerns. Sizing BMP capacity beyond this standard leads to insignificant increases in pollutants removal, and hence water quality protection, relative to the additional costs. Therefore, one alternative in addressing post-construction runoff is to design post-construction structural BMPs, with case by case considerations, to treat, infiltrate or filter stormwater runoff from each storm, up to and including the 85th percentile, 24-hour storm event for volume based BMPs, and/or the 85th percentile, 1 hour storm event, with an appropriate safety factor, for flow based BMPs.~~

~~The "85th percentile, 24 hr" design goal is applicable to volume based BMPs such as detention and infiltration basins, wet ponds, and constructed wetlands. The "85th percentile, 1 hr" design goal (with an appropriate safety factor is applicable to flow based BMPs that remove pollutants primarily through filtering and limited settling. These include media filters such as filter inserts in catch basins, oil/water separators, and biofilters such as vegetated filter strips and grassy swales. However, if swales are constructed primarily to contain and then induce infiltration, they should be subject to the "85th percentile, 24 hr" design goal.~~

Preliminary Recommendation 3-6 referred to suggested modifications in Appendix D. The following recommendations incorporate those suggested modifications, and provide more detail and clarification of the suggested modifications.

Recommendation 3-6: ~~Adopt *Policies and Ordinances to fully implement Management Measures from the State NPS Plan*: While the existing LCP, and above alternatives, address primarily issues of erosion, sedimentation, and water runoff from new development, the state has recognized additional sources of nonpoint source pollution through the management measures detailed in the State's nonpoint source pollution control plan. For example, mechanisms to address runoff from existing development and water degradation from residential septic systems are detailed in Appendix D. Implementation of these measures, and other preliminary measures identified in Appendix D would further improve the County's protection of water and marine resources.~~

Recommendation 3-6a and Recommendation 3-11*:*

Add policy or ordinance to prohibit subdivisions on slopes over 30%, where the subdivision would result in building pads, access roads, or driveways to be located on slopes over 30%, or where grading would result on slopes over 30%. For subdivision requests on slopes over 20%, the applicant should include the location of building pads and access roads, located to minimize erosion and sedimentation, and should require that development maintain pre-development flows by detaining stormwater flows on site.

Recommendation 3-6b and Recommendation 3-9: Modify criteria citing watercourses on USGS maps*:* One requirement for sedimentation and erosion control plans is land disturbance activities that are "within 100 feet of a watercourse shown on current 7 ½ minute USGS quad map. Modify Section 23.05.036 of the CZLUO to include the following criteria for requiring a sedimentation and erosion control plan: where a) a watercourse supports fish, or b) has significant flow 30 days after last significant storm~~, or c) has a channel, free of soil and debris~~. References to watercourses throughout the LCP should include this criteria and meet the criteria under ESHA Recommendation 4.1.

Recommendation 3-6c and Recommendation 3-12*:* Deleted and replaced with the following:

Modify the LCP grading and/or drainage ordinance (Sections 23.05.020 through 23.05.038 and/or 23.05.040 through 23.05.050) to require, as requirement for filing a plot plan, minor use permit, or development plan, a water quality control plan for all projects and activities which require land use permits or grading permits. Single family residences on slopes under 20% shall be exempt from this requirement if BMPs to assure the goals and objectives of the Modified Chapter 9 are included in the development plan and sized appropriately to ensure the protection of water quality and to meet the design goal criteria. The water quality plan shall:

- identify the type and size of BMPs necessary to maintain peak runoff rates and volumes similar to pre-development rates, and accommodate runoff from the 85th percentile storm runoffs;
- protect or restore natural drainage courses and where feasible use vegetated drainage systems to decrease erosion and filter nonpoint source pollution;
- minimize pollutant loads;
- limit impervious surfaces;
- require the long-term maintenance of BMPs to assure that standards are met.

Recommendation 3-6d and Recommendation 3-8*:* ~~*Modify criteria defining "wet season" in LCP to reflect new information:* The current LCP requires an erosion and sedimentation plan when grading occurs between October 15 and April 15. Based on information from the Commission's Model Urban Runoff Program, the rainy season should begin on October 1. References in the LCP, and proposed new grading ordinance, should be updated to reflect this change.~~

Recommendation 3-6e*:* To improve protection of water quality from residential septic systems, update Title 19 to include the following standards and requirements:

- Add as one of the criteria for siting that septic tank and leach field systems shall avoid poorly drained soils (Ordinance 19.20.222)
- Require inspection and maintenance reports to be submitted by the property owner and/or septic operator at least every three years. The first report should be submitted three years from the date of issuance of the building permit. The property owners and/or septic operators shall be responsible for proposing and undertaking all measures necessary to ensure the continuing proper operation and adequate capacity of the septic tank and leach line systems.
- Add the following setbacks to Ordinance 10.20.222 (c) (2):
  Storm drainage pipes: 25 ft.
  Escarpments: 25-50 ft.
  Property Line: 5-10 ft.
  Building foundations: 10-20 ft, or 30 ft when located upslope from a building in slowly permeable soils.
- Require that septic systems shall not adversely impact surface waters or cause the groundwater nitrate concentration to exceed 10.0 mg/l N or any such drinking water quality objectives established by the California Department of Health Services or Regional Water Quality Control Board, at any source of drinking water on the property nor on any off-site potential drinking water source. Where groundwater nitrate concentration may exceed the applicable water quality objective or where surface waters may be adversely affected from the septic systems, install denitrification system(s) to reduce total nitrogen loadings by 50%.

Recommendation 3-7*:* Discussed and modified in previous section.

Recommendations 3-8 through 3-12: Deleted and/or incorporated into above modified recommendations.

4) Conclusion

As discussed in the preliminary report, the existing LCP policies and standards, certified in the late 1980s, do not reflect the most up-to-date management measures to protect water quality from urban and rural development. The Commission finds that revisions to the LCP are necessary to ensure that the LCP is effectively implemented to protect water quality in conformance with Coastal Act Sections 30230 and 30231. After further evaluation and consideration of public comments, pursuant to Coastal Act Section 30519.5, the Commission adopts Recommendations 3-3 through 3-12 as appropriate corrective actions for submission to the County.

C. Water Quality and Marinas/Boating Areas

1. Summary of *Preliminary Periodic Review* Findings (Exhibit A, pg. 96-99)

There are three boating areas under the jurisdiction of San Luis Obispo County: Port San Luis, San Simeon Harbor, and Leffingwell Landing. The LCP limits San Simeon Harbor to a small-

scale recreational boating area, boat-launching ramp, and parking area. Leffingwell Landing provides a boat ramp. Port San Luis supports commercial and recreational boating.

The *Preliminary Report* notes that few permits have been issued related to marinas or boating areas. The LCP requires that all development be sited and designed to mitigate impacts on the marine habitat (LCP Ordinance 23.07.178). The San Luis Bay Area Plan also requires that any development at Port San Luis control erosion and sedimentation. However, as with the LCP standards for agriculture and urban development, the existing LCP standards do not reflect the current knowledge to adequately address nonpoint source pollution from marinas and boating areas.

Addressing nonpoint source pollution from boating areas, and bringing the LCP into conformance with the adopted statewide nonpoint source plan, will require a mix of updated LCP policies and ordinances, as well as non-regulatory programs and educational efforts. Preliminary recommendation 3-13 emphasizes implementation of the management measures adopted in the state's nonpoint source plan, and identified through Appendix D. The recommendation states that new standards could be implemented when facilities are modified or expanded, and programs could be developed to address ongoing operations of harbors and boating areas.

2. Comments Raised

San Luis Obispo County Response (Exhibit C):
The County indicated a need for more information regarding implementation of the management measures for marinas and boating areas, and suggests that the practices and education programs detailed in Appendix D "should be developed through the update of the Port San Luis Master Plan which will be reviewed by [the] county and Coastal Commission".

Public Comments (Exhibit D):
The Port of San Luis Harbor District has stated that many of the management measures are outside the jurisdiction of the County and are enforced by other state agencies. Public comments raised a concern that engines on many small boats are highly polluting.

3. Analysis

Jurisdiction over development in the Port of San Luis Harbor lies with both the state and the County, depending on the location of the development. Generally, the Coastal Commission has authority to review development below the mean high tide line and on areas subject to the public trust. The Commission modifies preliminary recommendation 3-13 to delete those management measures that address the location and siting of marinas, which would remain under the Commission's retained jurisdiction.

However, other development associated with marinas or harbors is governed by the LCP policies. In these cases, the County has an important role in assuring that development adequately protects water quality. A number of management measures identified in Appendix D in the *Preliminary Report*, designed to reduce polluted runoff from boating areas, can be implemented, at least in part, through regulatory standards for new development. These management measures include assuring, where appropriate, that: 1) fuel and oil discharges are minimized, 2) sewage and other waste does not contaminate surface waters, and that 3) polluted runoff from maintenance activities is minimized. In addition, any harbor or marina plan should include an operation and maintenance component that addresses water quality protection.

However, the Commission finds that the language suggested by the County does not provide sufficient detail or direction to assure that these management measures will be incorporated into the LCP. The Commission understands that the Port District intends to incorporate new policies and standards into the Port Master Plan that will be submitted as amendments to the LCP. Therefore, as outlined in detail below through Recommendation 3-13a, the Commission proposes to modify preliminary recommendation 3-13 to identify those management measures that should be incorporated into the LCP (via the Port Master Plan), as well as standards that new development activities in boating areas should comply with.

In addition, the Commission recognizes that implementation of many of the management measures identified in Appendix D of the *Preliminary Report* will involve educational efforts. Much of the nonpoint source pollution will continue to occur through ongoing activities, not just when a development is proposed. The Commission recommends including a program in the Port Master Plan and LCP, encouraging the County to participate in efforts to education and encourage boaters and boating facility operators to use best management practices. The Commission anticipates working with the County to implement this recommendation through assistance from its water quality program. Many of the components that could be incorporated into an education program are outlined in revised recommendation 3-13b, below. The public's concern with engine types on boats could be addressed through such educational efforts.

The Commission deletes preliminary recommendation 3-13, and replaces it with the following recommendations:

> **Recommendation 3-13:** ~~If overall runoff policies are revised, then new standards could be implemented when facilities are modified or expanded. Relevant management measures from Appendix D to update the LCP could be incorporated as tools to manage sources of pollution.~~
>
> ~~Also, programs could be developed to address ongoing operations of harbors and boating facilities. Many of the sources of water quality degradation occur from ongoing activities. Education programs incorporating best management practices for waste disposal and maintenance activities can help protect water quality.~~
>
> **Recommendation 3-13a***:*
>
> For updated Harbor Plans, require an operation and maintenance component that addresses water quality protection. Update the LCP by adding policies and standards to implement effective runoff control

strategies and pollution prevention activities, by requiring, where appropriate, the following best management measures:

- providing buildings and/or enclosed areas where possible for maintenance activities;
- constructing new or restore former wetlands where feasible and practical;
- requiring use of porous pavement where feasible;
- requiring installation of oil/grit separators to capture petroleum spills and coarse settlement;
- requiring use of catch basins where storm water flows to the marina basin in large pulses;
- requiring filters to storm drains that are located near work areas and placement of absorbents into drain inlets.

Where fuel stations are added or redesigned, require them to reduce pollution from discharges through measures such as:

- writing and implementing a fuel spill recovery plan;
- using automatic shutoffs on fuel lines and at hose nozzles to reduce fuel loss;
- installing personal watercraft floats at fuel docks to help drivers refuel without spilling;

To reduce contamination of surface waters, require, as appropriate:

- sewage pumpout, dump station, and restroom facilities, and require maintenance of facilities;
- establish no discharge zones to prevent sewage from entering waters.
- filter additions to storm drains that are located near work areas;
- removal of old style fuel nozzle triggers that are used to hold the nozzle open without being held;
- install fish-cleaning stations with appropriate sewer hookups at marinas and boat launch sites;
- require a management plan and appropriate facilities to store, transfer, and dispose of liquid materials;
- build curbs, berms, or other barriers around areas used for liquid material storage to contain spills;
- prepare a hazardous materials spill recovery plan and update it as needed.

Recommendation 3-13b*:* Add the following program to Chapter 5 of the LCP (Commercial and Recreational Boating): In partnership with Harbor Districts and other agencies, the County shall participate in, and encourage, efforts to educate boaters and boating facility operators to implement management measures to reduce water pollution from boating activities. To support public education programs, the County should encourage the development of programs that support the installation of infrastructure that will enable the public to implement appropriate BMPs.

Educational information could include the following:

- Management practices for maintenance activities which minimize in-water work, and encourage maintenance activities in enclosed buildings, within spray booths, or under tarp enclosures.

- The use of vacuum sanders to remove paint from boats and collect paint dust.
- The benefits of absorbents in drain inlets.
- The need to use chemical and filtration treatment systems only where necessary.
- The importance of using low-toxicity or non-toxic hull paints, antifreeze, and coolants, and recycling products when possible.

Infrastructure and facility modifications could include:

- Install easy-to-read signs on the fuel dock that explain proper fueling, spill prevention, and spill reporting procedures. Locate and design boat fueling stations so that spills can be contained, such as with a floating boom, and cleaned up easily.
- Place trash receptacles and recycling containers in convenient locations for marina patrons.
- Provide boaters with trash bags.
- Provide facilities that extract used oil from absorption pads if possible, or for the disposal of it in accordance with petroleum disposal guidelines.

Fueling Facilities and Operations could include:

- Have spill containment equipment storage, such as a locker attached to the fuel dock, easily accessible and clearly marked.
- Promote the installation and use of fuel/air separators on air vents or tank stems of inboard fuel tanks to reduce the amount of fuel spilled into surface waters during fueling.
- Prohibit the use of detergents and emulsifiers on fuel spills.

Sewage Management modification could include:

- Provide sewage pumpout service at convenient times and at a reasonable cost.
- Provide portable toilet dump stations near small slips and launch ramps.
- Provide restrooms at all marinas and boat ramps.
- Establish practices and post signs to control pet waste problems.
- Establish no discharge zones to prevent sewage from entering waters.

4) Conclusion

As discussed in the preliminary report, the existing LCP policies and standards, certified in the late 1980s, do not reflect the most up-to-date management measures to protect water quality from marinas and boating areas. The Commission finds that revisions to the LCP are necessary to ensure that the LCP is effectively implemented to adequately protect water quality in conformance with Coastal Act Sections 30230 and 30231. After further evaluation and consideration of public comments, pursuant to Coastal Act Section 30519.5, the Commission adopts Recommendations 3-13a and 3-13b as appropriate corrective actions for submission to the County.