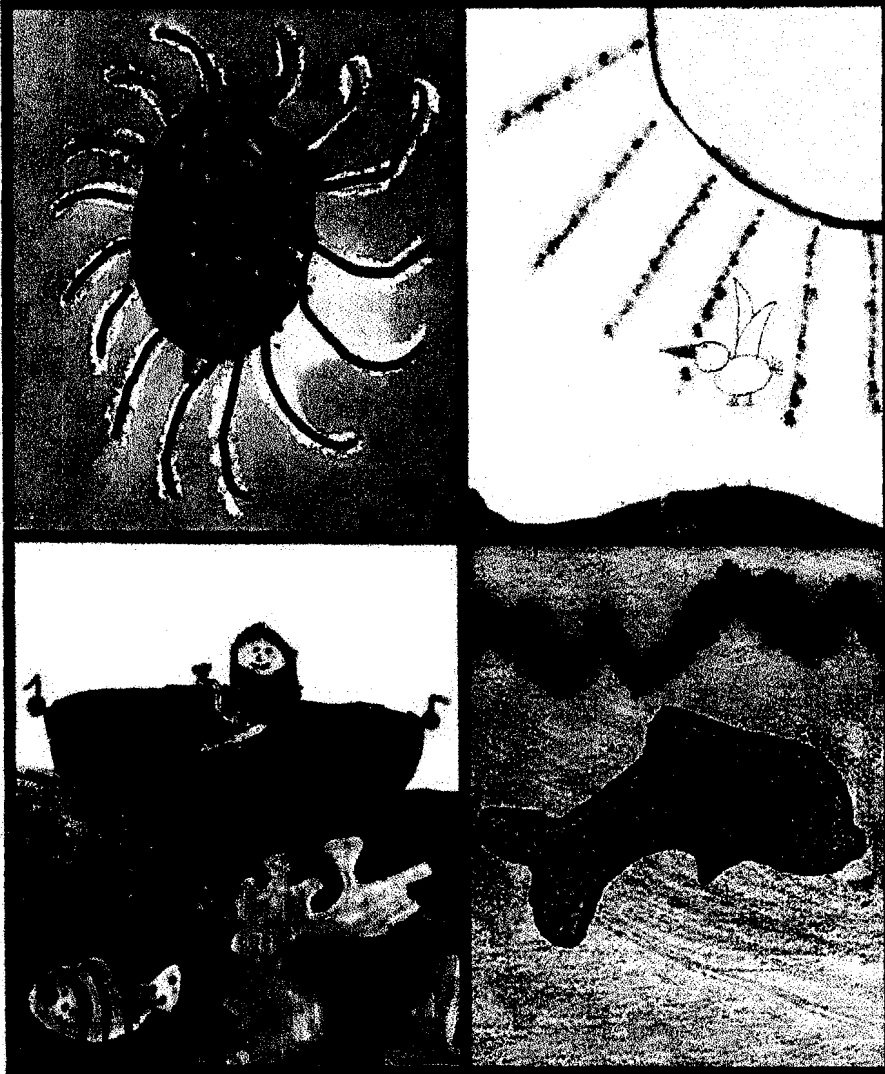


Turning the Tide For Morro Bay



COMPREHENSIVE CONSERVATION & MANAGEMENT PLAN FOR MORRO BAY

Published by the Morro Bay National Estuary Program,
The Bay Foundation of Morro Bay and the Central Coast Regional Water Quality Control Board
in cooperation with the U.S. Environmental Protection Agency Region IX

VOLUME III

Prepared by the Morro Bay National Estuary Program Management Conference & Staff


With the assistance of Battelle

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COVER DESIGN

In the fall of 1998, 211 Kindergarten through 12th Grade students entered the Morro Bay National Estuary Program "Turning the Tide" Poster Contest. Entries were judged in three age groups—Kindergarten through 3rd Grade, 4th through 6th Grade, and 7th through 12th Grade. Over 200 people attending the 1998 Oktoberfest in Baywood Park, California selected the final winners. Ben and Jerry's Ice Cream donated gift certificates to all of the winning entries, and Duke Energy and Kinko's Copies in San Luis Obispo provided funds for printing the 1999 MBNEP Calendars. The winning artwork provides the theme for the CCMP and appears throughout this document. Thanks to the following poster contest participants:

**Cynthia Bernal, Sunnyside Elementary School
Chelsea Dauer, Home-school student
Jacqueline Echevarria, Baywood Elementary School
Tim Edge, Teach Elementary School
John Fields, Judkins Middle School
Jennifer Gosnell, Monarch Grove Elementary School
Brittany Howlett, Judkins Middle School
Megan Jio, Baywood Elementary School
Erica Lindsay Oberg, Monarch Grove Elementary School
Leland O'Connor, Baywood Elementary School
Ryan Parker, Judkins Middle School
Amie Wahl, Judkins Middle School**



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**RESPONSE TO COMMENTS
ON MBNEP PUBLIC DRAFT CCMP**



Response to Comments on MBNEP Public Draft CCMP

*** after Comment indicates revised language and/or suggested change has been incorporated into the CCMP.**

Comment Letter 1 USEPA (McGovern)

Chapter 1

- 1.1. **Comment:** Sec. 1.2.2 - Better qualify existing data and which are lacking, include citations.
 Response: Existing data, data gaps and citations are included in the Characterization document, Volume II and readers are directed to this document at the beginning of Chapter 2.

Chapter 2

- 1.2. **Comment:** Sec. 2.3.10 - Include riparian function preventing stream bank erosion/trapping sediment. *
- 1.3. **Comment:** P. 6, 8, 23 - Figure incomplete, difficult to read. Add permitted NPDES locations. Clarify regulatory status of "standpipes" discharging to MB. *
- 1.4. **Comment:** P.21, 185 - Inconsistent listing of CA Central Coast Steelhead. *
- 1.5. **Comment:** Table 2.4 is incomplete. Include specific water quality standards required to support each beneficial use. Include SWRCB or CCRWQCB's antidegradation statement.
 Response: We refer to the standards, but did not repeat them. RWQCB antidegradation statement has been inserted into final CCMP.
- 1.6. **Comment:** Include swimming under Recreation, hunting under Commercial/Sport Fishing in Table 2.4. *
- 1.7. **Comment:** P. 36 - Define geographical source of groundwater contribution. *
- 1.8. **Comment:** P. 36 - Add "the elimination of septic tanks through additional wastewater treatment facilities" to list of other ongoing efforts to reduce bacterial pollution. *
- 1.9. **Comment:** Table 2.7 - Could be misread to mean that septic tanks are not a source of bacteria. Revise language to state "Unknown."
 Response: Tables 2.6 & 2.7 have been revised to delete the estimation of degree of contribution by source.
- 1.10. **Comment:** Indicate phosphorus or nitrogen as limiting factor in Los Osos and Chorro Creeks, M.B. If unknown, identify work needed to make determination and add to list of research actions in Chapter 5.
 Response: The final CCMP indicates that phosphorous is the limiting factor for all creeks except Pennington.
- 1.11. **Comment:** Add a Table similar to Table 2.7 for Nutrients on page 41.
 Response: Table of nutrient sources and contributions is added.
- 1.12. **Comment:** P. 42 - Freshwater flow discussion does not identify problems of increased temperature or decreased dissolved oxygen associated with freshwater flow reductions.
 Response: The final CCMP notes that the CCRWQCB will review and update their list of impaired waters next year and may include temperature and dissolved oxygen as causes of impairment.
- 1.13. **Comment:** P. 46 - Conflicting language under IMPACTS. Add map showing abandoned mines location in watershed and include corrective actions developed by CCRWQCB.
 Response: Added definition of "impaired water body;" revisions made to text; map of mines has been added.

- 1.14. **Comment:** P. 48 - Explain why waters within the estuary are not listed on 303(d) list for pesticides.
Response: To date, waters in the estuary have not been tested to identify presence or absence of pesticides conclusively. Future monitoring for TMDL development and other water quality monitoring will include pesticides screening.
- 1.15. **Comment:** Provide information re nature and severity of contaminants in storm water as collected through Drain Ranger Program. Explain how general storm water permit provisions are applied in M.B.
Response: Stormwater data has been included in the Characterization. Application of federal stormwater regulations, Phase II, will need to be addressed by the communities of Morro Bay and Los Osos.
- 1.16. **Comment:** Provide info re nature and severity of contaminants coming from Duke Energy and their impact. Report on all point sources of pollution to estuary and watershed, including location, history, monitoring stations, quantity and quality of pollutant discharge, and information gaps re their impact to the priority problems.
Response: Additional data concerning M.B. Power Plant has been included in the Characterization and the Final CCMP. See Table of NPDES permitted facilities and additional text.
- 1.17. **Comment:** P. 26, Sec. 2.4.3 - Land Use discussion does not include state land use jurisdiction.*
- 1.18. **Comment:** P. 28, Impacts - Commercial & Sport Fishing.
Response: Comment noted.
- 1.19. **Comment:** P. 29, Warm & Cold Habitat - Temperature not listed as priority problem.
Response: Comment noted.
- 1.20. **Comment:** P. 29, - Spawning - Add language, "In addition, to prevent the build up of fine sediments, periodic high velocity flushing flows are required to scour gravel spawning beds."*
- 1.21. **Comment:** P. 34, Bacteria - Include sentence to indicate threats to human health from pathogens originating from human sources may be greater than from pathogens from animal sources of waste.
Response: Comment noted.

Chapter 3

- 1.22. **Comment:** P.56 - Include CZARA as key program for priority problems when water quality is a factor.
Response: Inserted as key program for sedimentation and habitat loss.
- 1.23. **Comment:** P.57 - Include at end of Problems & Suggestions section: "A collaborative effort to display agency funded projects by the SWRCB, RWQCB, and EPA on the Internet is underway through UC Davis. The Natural Resources Project Inventory address is <http://ice.ucdavis.edu.nrip>.
Response: Inserted at end of first paragraph on P.57 (in "Problems and Suggestions," Sec. 3.2.1.
- 1.24. **Comment:** P.58 - Clarify if ground water and conservation are included in SLO County Estero Area Plan.
Response: Inserted groundwater along with water quality and conservation as addressed in the Estero Plan on P.58.
- 1.25. **Comment:** P.59 - Clarify that there are at least 6 agencies involved in regulating dredge and fill or other permitted activities conducted in streams and list them.
Response: Inserted the following sentence on the bottom of P.59 after the word "property." "Currently there is a permit streamlining project being implemented by the NEP with the six regulatory agencies with jurisdiction over dredge and fill operations: California Coastal Commission, CCRWQCB, San Luis Obispo County, U.S. Fish & Wildlife, CA Dept. of Fish & Game, and U.S. ACOE."

Chapter 4

- 1.26. **Comment:** Overlapping actions. Chapter 4 - describe how all pieces of effort will work together to ensure implementation proceeds in a coordinated fashion, i.e., HAB-7 and 8 are similar to SED-2,5, 9. SED-7 could be combined with SED-5 and STL-4; SED-7 information is duplicated in SED-5. HAB 2, 7 and 8 are similar. STL-5 could be cross-cutter.
Response: Although a number of actions are related, each is distinct. Coordination of efforts will be achieved through quarterly Task Force meetings.
- 1.27.1. **Comment:** Clarify who will implement individual steps and provide additional guidance during implementation.*
- 1.28. **Comment:** Non-Point Source Pollution Control Management Measures.
Response: The State of CA and the CA Coastal Commission have adopted a new document to address pollution from nonpoint sources in CA, titled, "Plan for California's Nonpoint Source Pollution Control Program", Volumes I and II. This document has been submitted to the U.S.EPA for final approval. The MBNEP will ensure that the management measures called for in this final document are included in each Action Plan as the actions are implemented. Implementers can find a copy of the management measures at the MBNEP Office or on the Internet at www.swrncb.ca (select Nonpoint Source Option) and also in the appendix.
- 1.29. **Comment:** Identify MBERF as funding source for eligible actions. Delete MBERF from all EDU actions. Recommend 50% match be required for every entry under Potential Funding Source.*
- 1.30. **Comment:** Information regarding costs are missing from a number of action plans (FLOW 1-4).
Response: Cost information for the 31 high priority action plans is included based on readily available information.
- 1.31. **Comment:** FLOW-2 - Golf course runoff.
Response: Monitoring downstream of the State Parks golf course will be included in the NEP Monitoring Program as appropriate.
- 1.32. **Comment:** Drainage Cross-Cutting Action - Explain how this action will be modified when effluent from homes is no longer discharged into the upper aquifer.
Response: The Los Osos Community Services District management plan is to collect, centrally treat wastewater to a tertiary level and then discharge the water to the upper aquifer. A portion of the tertiary water will also likely be directly re-used on school grounds, parks and other appropriate locations. Stormwater run-off patterns from households will not be significantly re-routed. Language of DRAINAGE action will be changed to show implementation and will be identified and prioritized based on the approved Los Osos Community Sewering Plan.
- 1.33. **Comment:** P. 73 - reference to Federal law is incorrect – change 2nd & 3rd sentence in 2nd paragraph to clarify that it is Federal regulation, not Federal law, which requires specific provisions of a TMDL.*
- 1.34. **Comment:** Add CCC to list of supporting organizations; ground water protection should be included in Ranch Management Plans.
Response: CCC has been added to list of supporting organizations under NUTR-4 and NUTR-5.
- 1.35. **Comment:** BACT-7 - Problematic action? How to dispose of contaminated oysters?
Response: Oysters can depurate or flush out toxins through a clean water holding process.
- 1.36. **Comment:** Extend scope of BACT 4, 5 to address prevention of future illegal moorings.*
- 1.37. **Comment:** Clarify EPA function in support role.*
- 1.38. **Comment:** BACT-10 (all states must adopt bacterial standards consistent with EPA guidance by 2003).
Response: Comment noted.

- 1.39. **Comment:** P. 131 - Sewer – Delete “may” in last sentence of 2nd paragraph. Full costs need to be provided here and in HMT-6.*
- 1.40. **Comment:** P. 133 - Sewer. Add info re enforcement action.*
- 1.41. **Comment:** NUTR-4 & 5 – add CCC under support.*
- 1.42. **Comment:** Strengthen evidence for statements that a lack of freshwater flow to estuary exists.*
- 1.43. **Comment:** HMT-2 is inconsistent with action plan on p. 156. Add additional action to address need for integrated pest management program or expand to more clearly address this need.
Response: The goal of this action is to remove *arundo donax*, an exotic species through the application of cut-stem treatment using pesticides, not use integrated pest management. The action was moved to the Habitat section.
- 1.44. **Comment:** Add CCC to HMT-3 under support.*
- 1.45. **Comment:** Revise EPA’s role from primary to support under HMT-6; complete cost of building the facility needs to be included.*
- 1.46. **Comment:** EPA is missing on Table 4.10 as support agency for HAB-6. CCC should be listed as implementing agency on Federal Consistency authority under CZMA and CA Coastal Act Chapter 3.*
- 1.47. **Comment:** Funding costs for reconnaissance and feasibility studies, range of funding opportunities and matches for implementation of ACOE’s restoration projects on page 189 of HAB-6 is missing.
Response: The ACOE habitat restoration studies are included as a separate action.
- 1.48. **Comment:** Starting with Action on P.20, add NMFS to list of support entries. *
- 1.49. **Comment:** Include SWRCB as support agency in nonpoint issues (Sedimentation/Nutrients) *
- 1.50. **Comment:** Revise “Funding Source” category in each action plan to “Potential Funding Source.”*
- 1.51. **Comment:** BACT-8. Justify funding in this proposal.
Response: Bird populations on Bass Lake in Madero County, CA have been shown to be associated with increased illness in people swimming adjacent to areas of high bird populations.

Chapter 5 – Monitoring

- 1.52. **Comment:** Include monitoring and research as actions.*
Response: Will not be listed as actions, except for Cross Cutting Action #6, Volunteer Monitoring Program.
- 1.53. **Comment:** There should be explicit coordination between monitoring activities outlined in the CCMP and the coastal nonpoint source program currently being developed by CCC and SWRCB.*
- 1.54. **Comment:** Costs for environmental monitoring. Need to decide on approach.*
Response: Estimated annual budget for core TREND Monitoring elements has been drafted and charted into Chapter 5.
- 1.55. **Comment:** Define numeric thresholds for sedimentation.*
Response: Numerical targets will be based upon CCRWQCB Technical Sediment TMDLs for Chorro Creek and MB Estuary.

- 1.56. **Comment:** Monitor priority organics and the landfill.
Response: The San Luis Obispo County Engineering Department, in compliance with waste discharge requirements issued by the CCRWQB is monitoring potential ground water impacts from the Los Osos landfill. Additional surface water monitoring for organics originating from the landfill are likely unnecessary. Los Osos Creek will probably be delisted from the 303(d) list next year.
- 1.57. **Comment:** Matrix of lead and support agencies for monitoring.*
Response: Please see Table 5-1, Chapter 5.

Chapter 6 – Performance Monitoring

- 1.58. **Comment:** Move from narrative descriptions (e.g. reduced sedimentation) toward numeric targets.*

Chapter 7 - Implementation

- 1.59. **Comment:** P.261 - List all APDP projects with summary in Appendix B, include Farmer to Farmer Video, Volunteer Monitoring, and early action projects funded through MB Restoration Fund. *
- 1.60. **Comment:** P.262 - Does not state how MBNEP will evaluate effectiveness of implementation structure in later years.*
- 1.61. **Comment:** Clarify Forum responsibilities.*
- 1.62. **Comment:** P.266 - Makeup of Executive Committee. *
- 1.63. **Comment:** P.266 - Clarify cost to fully implement CCMP and define time frame
Response: We only estimate costs for those actions that are priority actions for the next two years. This would be consistent with other NEP's who have found that much money can be wasted estimating costs for projects that will not occur for some time and therefore costs would be out of date when the action is finally implemented. Many NEP's do not even include cost information in their CCMP. We will leave cost information in the CCMP for 2-yr. priority actions, and for actions for which we have good cost information already.
- 1.64. **Comment:** P.266 - Delete language and bullets describing provisions of the Consent Decree and replace with direct language from actual Consent Decree.*
- 1.65. **Comment:** Add additional tasks under NEP Staff Responsibilities.*

Appendix E

- 1.66. **Comment:** Add Ex-officio Policy Committee and membership.*
- 1.67. **Comment:** Add L. McCann and A. White under staff; acknowledge key consultants.*

Comment Letter 1(a) e-mail from McGovern

- 1(a)1. **Comment:** Include all 8 recreational sites under Sandy Beaches section.*

Comment Letter 2 USEPA (marked up CCMP from Cogan)

- 2.1-2 **Comment:** All comments have been addressed except: 1) The Basin Standards are referenced but not included directly; and 2) cattle correlation to percent contributions of nutrients is not known.

- 2.3 **Comment:** The “Examples of Similar In-Place Actions” section is formatted to present a brief list (bullets) or where appropriate, a narrative description of a single program with information on a range of program components that have relevance for the MBNEP action plan.
Response: Given the extended delays and value of reformatting from bullets to narrative, it did not appear cost effective to make these changes.
- 2.4 **Comment:** P. 8 - Perhaps figure 2.1 and 2.2 could share a page.
Response: Figures 2.1 and 2.2 are difficult to read as presented on separate pages. They would have to be reduced to fit on the same page which would make them even harder to read.
- 2.5 **Comment:** P. 24 - Basin standards are referenced but not included directly.
- 2.6 **Comment:** P. 25 - Why not combine these 2 sections?
Response: These two sections are taken from the State of California Central Coast Basin Plan and to combine them would be misrepresenting the Basin Plan.
- 2.7 **Comment:** P. 28 - Cite the Study.
Response: All citation have been removed and located in the Characterization Report which is contained in Volume II of the CCMP.
- 2.8 **Comment:** P. 29 - Should this impact be combine with warm and cold freshwater habitat?
Response: See response to 2.6
- 2.9 **Comment:** P. 56 - You are missing the local side of this analysis/summary.
Response: See Complete Base Program Analysis in Volume IV and V of the CCMP.
- 2.10 **Comment:** P. 57 - City wastewater treatment, city sewer master plan, and county waste management need to be addressed in the Problems and Suggestions Section.
Response: The city wastewater treatment program and city sewer master plan to address bacteria are key programs that are not a problem and therefore there are no suggestions to improve it. The county waste management program is discussed under the Problems and Suggestions section.
- 2.11 **Comment:** P. 57 - CDPR is not listed above.
Response: The CDRP does not have a key program to address bacteria which is why it is discussed under the Problems and Suggestions Section and not listed under the Key Programs Section.
- 2.12 **Comment:** P. 58 - What about the programs that are not listed in BAC and SED, 3.2.3 Nutrients?
Response: No problems were identified for these listings (DWR, DOC, and UCCE).
- 2.13 **Comment:** P. 58 - What about the programs that are not listed in BAC and SED, 3.2.4 Heavy Metals and Toxics?
Response: Cal-EPA DTSC Toxics Update, Emergency Response Training, and CDFG OSPR Programs were not identified as programs with problems.
- 2.14 **Comment:** P. 69 - Identify local governments give out land acquisition grants, list specific funding programs for state and federal species protection programs, and which programs are available in the “other land acquisition grant and loan programs”.
Response: This specific information is not readily available. The Finance Work Group will identify his information as the CCMP is implemented. Many times funding programs are site specific based on the nature of land ownership, resource value, local agency interests and vary from one time to the next.
- 2.15 **Comment:** P. 69 - Prioritized list of land acquisition opportunities.
Response: Based on the sensitive nature of marketing and price increases, the committee will not rank land acquisition opportunities. We want to avoid identifying particular parcels in respect of existing landowners.

- 2.16 **Comment:** P. 70 - Explain how.
Response: The sewer will discharge to the upper aquifer thereby affecting groundwater recharge. The overall drinking water supply for the community is provided by the deep, aquifer. This information did not get added because most readers will be familiar with the system and it is described in Chapter 2.
- 2.17 **Comment:** P. 75 - Needs a little explanation.
Response: No explanation provided. These tasks are simply the steps California takes to adopt TMDL's, i.e. public notice of hearing and adoption hearing.
- 2.18 **Comment:** P. 85 - How many sediment traps exist now in the watershed? Will you be able to measure?
Response: We don't know how many sediment traps currently are in place in the watershed. We will count only the numbers that get installed through the efforts and funding from the MBNEP.
- 2.19 **Comment:** P. 86 - Use bullet format like the other actions.
Response: It wasn't cost effective to convert text to bullets and vice versa.
- 2.20 **Comment:** P. 109 - Are there specific or particular programs?
Response: The UCCE typically provides technical assistance but has participated in programs with others to provide resources to assist in the implementation of grazing management measures.
- 2.21 **Comment:** P. 132 - I would suggest taking out the development of a wastewater system as action and replace with: MBNEP will work with LOCSD to do technical studies and analysis to assist in the development of a wastewater system.
Response: The Los Osos septic system has been identified as a problem and has been studied for over 20 years. The community is currently under a state enforcement action that requires the construction of a central wastewater treatment facility to treat sewage from home in the area.
- 2.22 **Comment:** P. 140 - Don't use bullets, be consistent throughout the document.
Response: Low Priority
- 2.23 **Comment:** P. 161 - Basis for Cost, Add Yards and Neighbors
Response: This information is shown 3 lines above and is a low priority.
- 2.24 **Comment:** P. 183 - How is this related or different from HAB-2?
Response: Although there are two closely related mapping actions, one is more focused on integrating the information from the maps into land use plans and decision-making forums whereas the other is more closely associated with the development of the maps.
- 2.25 **Comment:** P. 190 - This action protects riparian vegetation from impacts caused by other problem pollutants, including heavy metals and bacteria.
- 2.26 **Comment:** P. 193 - HAB-8 supports HAB-7 by providing an incentive program to support voluntary participation for implementing riparian and wetland resources protection methods developed through the HAB-8 action plan.
- 2.27 **Comment:** P. 196 - There are no new guidelines, however, new developments and strategies can be a component of this implementation plan as they become available in the future.
- 2.28 **Comment:** P. 220 - (SED-1)
Response: We didn't see the connection between (SED-1) and Action EDU-13: Review and refine the CEQA/NEPA initial study environmental checklist to increase awareness of beneficial uses of water and estuarine resources.

- 2.29 **Comment:** P. 222 - Aren't these actions (EDU-1) similar to actions in HMT-3 and others?
Response: HMT Implementation actions (now located in the new Cross-Cutting Urban Runoff Action) include: 1) assess polluted runoff, 2) research to identify resources, 3) install BMP's, 4) validate effectiveness, 5) provide for maintenance, 6) issue NPDES permit (s), 7) educate community about problems to promote BMP participation. EDU-1 actions include: 1) develop public education displays on habitats, 2) establish speakers bureau, 3) create public forums on community needs, 4) sponsor public opinion polls, 5) stencil storm drains, 6) educate public on fertilizer, herbicides, and pesticides and E&T species, 7) develop Watershed Resident Guide to guide citizens to appropriate agencies concerning environmental issues, 8) support Salmon and Steelhead Month, 9) sponsor coastal dune-focused education, and 10) sponsor bird-friendly signs near recreationally impacted areas.
- 2.30 **Comment:** P. 226 - EDU-3 is designed to encourage developing a "watershed orientation" by creating educational materials and conducting forums that emphasize collaboration among public and private landowners in the watershed with resource management agencies and specifically supports NACT-2 (grazing management), SED-5 (BMPs) and NUTR-5 (agricultural BMPs).
- 2.31 **Comment:** P. 233 - This seems broader than Volunteer Monitoring.
Response: This action plan has been moved to the Cross-Cutting Section and the emphasis is now on data collection benefits although public education is still a benefit from the action.
- 2.32 **Comment:** P.241 - How would you do this incrementally?
Response: Portions of the trails could be improved as development projects are implemented. The development could be conditioned to require the developer improve the pedestrian and equestrian trails as part of their approval.

Comment Letter 3 USDA/NRCS (Robbins)

**Please note comments are in hard copy format at the end of this document.*

- 3.1 **Comment:** Sec. 1.2.1 – Legacy of Caring, efforts of RCD and NRCS and their partners in the MB Watershed Enhancement Project are completely ignored
Response: Chapter 1 has been revised to highlight the Watershed Enhancement Project.
- 3.2 **Comment:** Sec. 3.1-3.79:
Response: Sec. 3.1-3.79: All comments have been responded to except the comment asking to revise the term "flushing".

Comment Letter 4 CCRWQCB (McCann)

- 4.1. **Comment:** Strategy for ensuring public is involved is needed in Implementation Chapter.*
- 4.2. **Comment:** More actions needed in Cross-cutting (i.e. urban runoff).
Response: A new Cross-Cutting Action, Urban Runoff Management, has been added on P.66 by moving and modifying the existing Action, HMT-3 from P.159. HMT-3 on P.159 has been changed to simply reference the new Cross-Cutting Urban Runoff Management.
- 4.3. **Comment:** Inactive mine discussions lack substance.
Response: Chapter 2 has been revised to expand inactive mine discussion.
- 4.4. **Comment:** P.iii and P. 53 - Should be "Inventory of Existing Local, State and Federal Programs."
Response: Not accepted; title of Chapter 3 will remain "Understanding the Existing Agencies & Programs."
- 4.5. **Comment:** P. 27 - Potential Impacts. Turn table headings 180 degrees towards outside of page.*
- 4.6. **Comment:** P. 34 - Bacteria. Recommended language changes.*

- 4.7. **Comment:** P. 35 - Trends and Study Results; recommended language changes.*
- 4.8. **Comment:** P. 34 - Recommended language changes.*
- 4.9. **Comment:** P. 35 - Potential Causes; recommended language change.*
- 4.10. **Comment:** P. 35 - Change paragraphs heading "Cattle grazing" to "Cattle Grazing & Holding Pens."*
- 4.11. **Comment:** P. 36 - Include qualification that the validity of estimates depend upon the accuracy of the default data used in the modeling effort.*
- 4.12. **Comment:** City lift station issues.
Response: Table has been deleted.
- 4.13. **Comment:** P.40 - Differentiate from estuary monitoring (recommended language).*
- 4.14. **Comment:** P.40 - Trends and Study Results – include statement re unexplained variability associated with predicted concentrations.*
- 4.15. **Comment:** P.40 - Urban Runoff – term "new" should be deleted as it implies older system exists.*
- 4.16. **Comment:** P.40 - Discussion gives impression that groundwater only flows into M.B. from natural springs or seeps.
Response: Language has been revised to clarify groundwater flows into M.B.
- 4.17. **Comment:** P.45-48, Sec. 2.5.5. – Mine studies, sample data from 1986-1996.
Response: Language regarding mine studies has been completely rewritten to reflect the latest information.
- 4.18. **Comment:** P. 48, Table 2.8 – delete cadmium, arsenic, and insert iron. Substitute "inactive" in place of "abandoned."
Response: We will use "inactive/abandoned" mines. See Glossary for definition.
- 4.19. **Comment:** P. 55, Sec. 3.1.2; recommended language change.*
- 4.20. **Comment:** P. 57, Bacteria/Nutrients - lacks problems definition and any suggestions.
Response: Comment noted.
- 4.21. **Comment:** P. 58, Sec. 3.2.4 - Add Water Code Cost Recovery to RWQCB Key Programs.*
- 4.22. **Comment:** P. 66 - Be more explicit regarding "resolve nonpoint source pollution issues"*
- 4.23. **Comment:** P. 66 - Recommend new cross-cutting for urban runoff control programs.
Response: See response to 4.2 above.
- 4.23a. **Comment:** Minor revisions to HMT-3 to broaden it into a cross-cutting action and Drainage should be incorporated into new action.
- 4.23b. **Comment:** Link between sewage treatment and flood control seems weak.
- 4.23c. **Comment:** P. 153 - HMT-3 should be changed to reference the new cross-cutting action for urban runoff.
- 4.23d. **Comment:** P. 159 - Mention runoff from roads, heavily-trafficked areas and areas with industrial activity outside immediate vicinity of MB and L.O. contribute pollutants.

- 4.23e. **Comment:** P. 161 - Coastal Commission should be added as primary agency under who.
- 4.23f. **Comment:** P. 162 - HMT-3; Demonstration project can be renamed consistent with new cross-cutting action.
Response 4.23a-4.23f: Urban runoff cross-cutting action and related changes to action items have been included in final CCMP.
- 4.24. **Comment:** P.67 - Benefits of land acquisition are understated.*
- 4.25. **Comment:** P.73 - Incorporate "impaired" definition into Chapter 2.*
- 4.26. **Comment:** P.74 - CCRWQCB staff, not USEPA staff, will develop best estimates for allocations.*
- 4.27. **Comment:** P.76 – Insert to Basis for Cost: "CCRWQCB has federal grant funds and state general funds to build upon and incorporate previously funded and future-funded efforts of the MBNEP in developing TMDLS."*
- 4.28. **Comment:** P.77 - Evaluation: 1st & 2nd bullets are the same and can be combined; 3rd bullet may be an inaccurate measure of evaluation.
Response: 3rd bullet based on current Federal regulations.
- 4.29. **Comment:** P.91 - Identify CCRWQCB as support agency regarding 319(h) grant funds for this action.*
- 4.30. **Comment:** P.103, Sec. 4.3 - Bacteria fails to list any action plans relating to urban runoff and ground water contributions of bacteria associated with failing septic systems in L.O. This issue is addressed under NUTRIENTS, and should be referenced in BACTERIA.
Response: A new Bacteria Action on P.103 under Bacteria Objective 1 that refers to the new Cross-Cutting Action, Urban Runoff Management, added on P.66 (see response to 4.2.)
- 4.31. **Comment:** P.103 - (see comment #6 above) - Recommended language changes re fecal coliform and water contact standards.*
- 4.32. **Comment:** P.132, NUTR-2 - Action should stress CCRWQCB & CSD's need to work together to ensure wastewater effluent is treated, in accordance with Basin Plan standards.*
- 4.33. **Comment:** P.132, NUTR-2 - Focus on constructing a wastewater treatment plant in a timely manner.*
- 4.34. **Comment:** P.133, NUTR-3 actions should be considered in conjunction with new cross-cutting action that is recommended to include HMT-3 and DRAINAGE actions.
Response: NUTR-3 will be incorporated into NUTR-2 as an interim measure.
- 4.35. **Comment:** P.133 - Recommend language change re discharges.*
- 4.36. **Comment:** P.133 - Recommend language change re standpipes.*
- 4.37. **Comment:** P.134 – Consider all Options and associated costs regarding wetland treatment and others.
Response: NUTR-3 not fully developed and will be incorporated into NUTR-2 as an interim measure. Added language will denote implementers' responsibility to consider all options and associated costs regarding wetland treatment.
- 4.38. **Comment:** P.137 - Background. Citation missing date.
Response: Not accepted – All citations are located in the Characterization Report.

- 4.39. **Comment:** P. 143, FLOW-3 should reference cross-cutting actions for Land Acquisition and urban runoff
Response: Inserted reference to Cross-Cutting Land Acquisition and the new Cross-Cutting Urban Runoff Management in the "NOTE" on P.149.
- 4.40. **Comment:** P.152, Sec. 4.6 - Editorial comments; "toxic substances" and "measured levels" are unexplained.
Response: See Chapter 2, Heavy Metals, Sec. 2..5.5.
- 4.41. **Comment:** P.153 - HMT-4 contains no detail and should not reference nickel mines.
Response: Language has been included to describe toxic levels of nickel from inactive mines.
- 4.42. **Comment:** P.154 -Table 4.9. Include "P" for Mine Remediation by Landowners.*
- 4.43. **Comment:** P.234, EDU-6 - Funding Sources. Sec. 319(h), not 319.*
- 4.44. **Comment:** P. 245 - Expand EDU-12 to include cooperative partnership with Cuesta & Cal Poly as part of Student Intern Program.*
- 4.45. **Comment:** P.247 - Add to Implementation Bullets: "Evaluation of project for other impacts to water quality (chemical, physical, and biological)."
- 4.46. **Comment:** P.253, Sec. 5.3.5 PUBLIC CONCERNS - (1) add "Do metals degrade any/all surface water beneficial uses; (2) does the bullet on dredging refer to M.B., Chorro Res., both or neither?"
Response: The dredging refers to M.B.
- 4.47. **Comment:** DESIRED TARGETS - Reference Basin Plan standards and others.*
- 4.48. **Comment:** METHODS OF MEASUREMENT – Indicate chemical analysis for sediment samples and water quality samples. *
- 4.49. **Comment:** Add statement "Mine reclamation success should be monitored at a mine and at various distances below the mine with samples measuring turbidity and chemistry of water and sediment." *
- 4.50. **Comment:** P.289 - Management. Conference Participants – include TAC members. *
- 4.51. **Comment:** P.290 - Recognize volunteer monitors. *

Comment Letter 5 CA Dept. of Parks & Recreation (Cicero)

- 5.1. **Comment:** P.17 - Cape Ivy is also present along lower reaches of Los Osos Creek.*
- 5.2. **Comment:** P.18 - Chorro Flats project removed 2600 feet of levee along old creek channel.*
- 5.3. **Comment:** P.18 - Cape Ivy should be included in exotic species list.*
- 5.4. **Comment:** P.66, Table 4.3 - State Parks as potential implementing organization under Land Acquisition; clarify landowners. *
- 5.5. **Comment:** P.68 - Two listings of landowners under Support; confusion between public and private landowners.*
- 5.6. **Comment:** P.98, SED-8 - Dune migration. Consider Dept. of Parks & Rec as supporting organization for restoration of north sandspit. *

Comment Letter 6 CA Dept. of Transportation (Giuliano)

- 6.1. **Comment:** CalTrans supports MBNEP goal and implementation of actions listed in CCMP.
Response: Noted – statement of support.

Comment Letter 7 CA Army National Guard (Froland)

- 7.1. **Comment:** P.11-Chorro Reservoir. CMC stopped suction dredge in late 1980's early 1990's.*
7.2. **Comment:** P. 12 – Table 2.1. Documented red-legged frogs in Upper Chorro.*
7.3. **Comment:** P. 23 – Figure 2.3 – no legend.*
7.4. **Comment:** Standardize Camp San Luis, CA National Guard throughout document. *
7.5. **Comment:** CSLO should be considered as supporting partner for SED-3. *
7.6. **Comment:** CSLO (& public landowners) should be considered supporting partners for HMT-2. *
7.7. **Comment:** CSLO (& public landowners) should be considered supporting partners for HAB-4. *
7.8. **Comment:** CSLO (& public landowners) should be considered supporting partners for HAB-5. *
7.9. **Comment:** CSLO should be documented as primary partner for HAB-7. *
7.10. **Comment:** CSLO should be documented as primary partner for HAB-10. *
7.11. **Comment:** CSLO should be considered as supporting partner for STL-2. *

Comment Letter 8 CA Dept. of Fish & Game (Highland)

- 8.1. **Comment:** STL-2 notations on identified barriers.
Response: The projects have been listed in order of priority per the comment.

Comment Letter 9 CA Coastal Commission (Lester)

- 9.1. **Comment:** MBNEP may want to consider identifying the M.B. Watershed Project as an Action Item.
Response: This project is part of SED-9 and we have revised the Action to include the Watershed Project.
9.2. **Comment:** Coordinate between the Commission and MBNEP (technical assistance, processing permit applications, etc.) to ensure project success.
Response: We have included CA Coastal Commission as Support on nonpoint source actions.
9.3. **Comment:** (1) CCC will be involved in designation of the sandspit as sensitive habitat (SED-8), initiate program to revegetate; (2) Developing planning overlay maps for sensitive habitat and listed species. and, therefore, requests they be added to SED-8 and HAB-2.*
9.4. **Comment:** Accurate mapping of Sensitive Habitat Areas. HAB-4, HAB-6, HAB-7 *
9.5. **Comment:** Update LCP maps currently used for planning and regulatory purposes; add in HAB-2.*

Comment Letter 10 SLO County Dept. of Planning & Building (Carroll)

- 10.1. **Comment:** P.23, Fig. 2-3; Multiple Land Use Jurisdictions in M.B. - Include legend identifying jurisdictions. *
- 10.2. **Comment:** P.26, Sec. 2.4.3; Land Use - All County General Plan categories (zones) (13), are found within the MB Watershed, except Industrial. Discussion of sensitive/protected areas appears to apply only to City of M.B. The County General Plan also identifies environmentally sensitive habitats. *
- 10.3. **Comment:** P.56, Sec. 3.2.1., Sedimentation, Problems & Suggestions - Revise first sentence. *
- 10.4. **Comment:** P.59, Sec. 3.2.6, Habitat - Disagree with statement that local policies and programs appear to be inconsistently applied within areas identified as ESA (not ESHA). Draft Estero Plan does apply SRA and ESH policies and standards.
Response: Commented noted and language deleted from text.
- 10.5. **Comment:** P.68, Sec. 4.1; Cross-Cutting Actions, Land Acquisition, Implementation - Revise last sentence of implementation measure. *
- 10.6. **Comment:** P. 98, SED-8 - Revise first implementation measure. *
- 10.7. **Comment:** P.154, Table 4.9 - Add County as supporting agency for HMT-4. *
- 10.8. **Comment:** P.165, HMT-4 - Add County as supporting agency. *
- 10.9. **Comment:** P.175, Sec. 4.7, HAB-4 - This action is a proposed combining designation program in the draft Estero Area Plan. *
- 10.10. **Comment:** P.183, HAB-4 - Proposed combining designation program A2 on page 6-24 of draft Estero Area Plan does not include extensive mapping described in HAB-4. Program A-2 is limited to checking accuracy of wetlands designations along the Morro Bay shoreline. *
- 10.11. **Comment:** P.193, HAB-8, Background/Major Issues - 2nd sentence; the Land Use Element contains 15 area plans; 11 inland and 4 coastal. *
- 10.12. **Comment:** Background/Major Issues; 4th sentence; editorial change. *
- 10.13. **Comment:** Background/Major Issues; 7th sentence; revise. *
- 10.14. **Comment:** Background/Major Issues; last sentence; revise. *
- 10.15. **Comment:** Background/Major Issues; 3rd para., 1st sentence; correction. *
- 10.16. **Comment:** P.194, HAB-8 - Revise first implementation measure. *
- 10.17. **Comment:** P.230, EDU-5 - Revise 1st sentence. *
- 10.18. **Comment:** P.247, EDU-13 - Delete "overlay" from environmental checklist. *
- 10.19. **Comment:** P.247, EDU-13 - Revise implementation measure. *

Comment Letter 11 CMB Dept. of Public Services (Hendrix)

- 11.1 **Comment:** FLOW-1 - Add U.S. Dept. of Interior as primary agency. *
- 11.2 **Comment:** FLOW-2 - City of M.B. be added as primary. *
- 11.3 **Comment:** HMT-3 - Modify to conform with NPDES, Phase II proposed regulations where actions overlap. *
- 11.4 **Comment:** HAB-2 - Develop planning overlay maps in conjunction with local land use authorities; modify implementation description to include active participation by (principally) the County and to some extent City of M.B. Coastal Commission is not referenced.
Response: See letter 9, response to Comment 5.
- 11.5 **Comment:** STL-2 - Modify to consider alternative or competing water uses when crafting action plans.
Response: We included language in STL-2 to indicate that there are competing uses of water to be considered when implementing this action.
- 11.6 **Comment:** EDU-5 - Implementation should acknowledge existing conservation measures and results obtain within City of M.B. *
- 11.7 **Comment:** EDU-13 - Modify implementation description to clarify information developed is advisory to agencies charged with land use regulation; responsible agencies should be "primary." *
- 11.8 **Comment:** Background/Major Issues; on-going Carollo comprehensive reclamation project should be included in CCMP.
Response: The Carollo Study concluded that the reclamation project was not economically feasible.
- 11.9 **Comment:** Add "potentially" to 2nd bullet under FLOW-1 Benefits. Question of how to measure flow in creek has not been answered.
Response: There is a flow gage near CMC's plant on Chorro Creek. Additional flow measuring will be done by the City of M.B. or the NEP Monitoring Program, as needed.
- 11.10 **Comment:** Implementation; 1st bullet – Funding is an obstacle; recommend NEP or ACOE provide significant portion of funding to construct facility. *
- 11.11 **Comment:** 2nd bullet - RWQCB, EPA, and Fish & Game would be responsible agencies for determining appropriate treatment levels for instream discharge. *
- 11.12 **Comment:** FLOW-1 - NEP and other concerned parties could provide comments on Waste Discharge Requirements granted.
Response: The NEP will be added to the interested parties list for the Board's agenda.
- 11.13 **Comment:** FLOW –1 – Who? Does City of M.B. want to be listed as primary player in this action?
Response: The city of M.B. is the appropriate primary agency for this Action Plan.
- 11.14 **Comment:** FLOW-1, Related Actions - Attempting to route a raw sewage pipeline does not sound feasible.
Response: Pumping raw sewage from the city to a separate treatment plant higher in the watershed is infeasible based on a study recently completed by the city. Similarly, CMC as part of a wastewater management masterplan, looked at the option of routing sewage down the watershed instead of upgrading their treatment plan. They decided it was most effective to upgrade their existing treatment plan. FLOW-1 refers to construction of a new reclamation facility.

Comment Letter 12 CMB Harbor Department (Lichtenbaum)

- 12.1. **Comment:** SED-6 – Implementation cost seems very low.
Response: Actual costs will be determined by implementers.
- 12.2. **Comment:** SED-8 – Typo correction. *
- 12.3. **Comment:** BENEFITS OF THIS ACTION: Delete bullet 2; Sand spit revegetation might reduce need for dredging.
Response: Added language to reflect “potential” benefit.
- 12.4. **Comment:** Table 4.6 - City of M.B., add “P” under BACT-3, “S” under BACT-4, “S” under BACT-5. *
- 12.5. **Comment:** BACT-3 - Delete example cost for portable toilet waste station; cost estimate too low. *
- 12.6. **Comment:** BACT-6 - How was 20k estimate derived for Improving Enforcement; seems low.
Response: We agree that the \$20,000 estimate may be low. Recommend changing the wording to indicate that funding requirement is unknown at this time. Costs were derived using a general estimate of man hours needed to increase enforcement of existing regulations and for coordinating with the U.S. Coast Guard City Harbor Office to publicize laws and law enforcement actions.
- 12.7. **Comment:** NUTR-2 - Cost only identifies education; no cost estimate for implementations.
Response: A range of costs for construction has been added.
- 12.8. **Comment:** Table 4.9 - City of M.B., add “P” under MNT-5; add “P” under HMT-7. *
- 12.9. **Comment:** HMT-6 - Implementation, delete bullet 4. *
- 12.10. **Comment:** WHO; Primary: Delete USEPA.*
- 12.11. **Comment:** COST; Description; Construction (a feasibility study was completed). Estimate: \$2-3 million; basis for cost: Engineering Feasibility Study, 1997. *
- 12.12. **Comment:** HAB-6 - Confusion regarding ACOE proposed Habitat Restoration Feasibility Study and Maintenance Dredging Program. Different problems, different funding. Clarify ACOE recommendations.
Response: See response to EPA #47.
- 12.13. **Comment:** Examples of Similar In-Place Actions: Add, Upper Newport Harbor, Batequitos Lagoon. *
- 12.14. **Comment:** Benefits of this Action: Add: reduced rate of sedimentation; increased tidal prism.
Response: This comment does not apply to HAB-6. A new action plan for dredging the Bay is included and will move forward as recommended by the ACOE Feasibility Study.
- 12.15. **Comment:** Implementation: At end of last bullet add: creation of sediment traps and selective dredging of the back bay to increase tidal prism.
Response: See response #14 above.
- 12.16. **Comment:** P. 189, COST, Habitat Restoration Feasibility Study - Estimate \$1.6 million (50/50 cost share with local direct cash cost of \$25% and 25% through local cost-share).
Response: See response #14 above.
- 12.17. **Comment:** NOTE: Copy of analysis of 1998 ACOE Reconnaissance Report attached.
Response: Comment noted.
- 12.18. **Comment:** P. 195, HAB-9 -Typo correction. *

- 12.19. **Comment:** Environmental Monitoring Program; p.249, Add Objective-6, Monitor emissions from Duke (or include under Objective-1).
Response: The Monitoring chapter provides for this monitoring.
- 12.20. **Comment:** P.251, Sec. 5.3.2, Bacteria, Public Concerns - Is it safe to eat local shellfish year-round? Change to just oysters or indicate there is a naturally occurring toxin present in mussels and clams which makes the meat unsafe for consumption from May-October. *
- 12.21. **Comment:** P.253; 5.3.6, Habitat Loss; Public Concerns - Add: What is impact of Duke extraction of bay water on biological resources.
Response: Research needs concerning impacts of Duke's expansion have been added to the Research Section.
- 12.22. **Comment:** Recommended Structure: Wording about votes on Consent Decree is confusing. Needs further clarification. *

Comment Letter 13 Los Osos CSD (Bowker)

- 13.1. **Comment:** Limited ability of underlying studies to guide NEP in offering meaningful plans and actions to reverse degradation of the Bay.
Response: Evidence is lacking to support the claim that Tetra Tech studies have provided data that could be relied on approximately 27% of the time. We believe that the studies, along with existing information and the participation of hundreds of volunteers and local experts, have provided a firm foundation upon which to build the Action Plans included in the final CCMP.
- 13.2. **Comment:** Wastewater/Drainage action plans – Noted inclusion of separate Action Plan for L.O. Drainage with Cross-Cutting Actions and incorporated these comments from Drainage Committee's review.
Response: Noted.
- 13.3. **Comment:** P.66, Table 4.3 - Add LOCSO as potential implementing organization (supporting role). *
- 13.4. **Comment:** P.66, Table 4.3 - SLO County should be listed as "primary" along with LOCSO. *
- 13.5. **Comment:** P.70; Background/Major Issues - Reference reduction benefits. Sediment should be shown.
Response: Agreed. Sediment should be mentioned in the description of the issues.
- 13.6. **Comment:** P.71 - If County is reclassified from Support to Primary in Table 4.3, need to account for that change in listing on p.71. *
- 13.7. **Comment:** P.72 - Chart: Potential Funding Column, Negotiate and acquire land ROW—MBERF is not listed in Acronyms: it should be on p.270. *
- 13.8. **Comment:** Potential Source Column: ROW—BF is not listed in Acronyms, should be on page 269. *
- 13.9. **Comment:** NUTR-3 – LOCSO suggests replacement language for Background/Major Issues, p.133. *
- 13.10. **Comment:** HMT-3 – LOCSO will address these issues as related to the provision of wastewater and drainage projects.
Response: Comment noted.

Comment Letter 14 CSLRCD (Chipping)

- 14.1. **Comment:** Add Linda Chipping to Appendix E (WC).*

Comment Letter 15 CSLRCD (Swift)

- 15.1. **Comment:** Insert language on Chorro Flats Project, P.2.
Response: See response to Letter 3, 1.
- 15.2. **Comment:** P.18 – Be specific and tell who and why section was removed.*
- 15.3. **Comment:** P.27 – Reorganize priority problem from 6 to 4.1
Response: We added steelhead loss as a separate priority problem but did not reorganize original 6 to 4 because each priority problem is discussed separately in the final CCMP, as recommended by the WC.
- 15.4. **Comment:** P.28 – Add Marina boat users and impacts to Navigation Beneficial Use.*
- 15.5. **Comment:** P.34 - Move 3rd paragraph to 1st paragraph and list any documented cases in MB.*
- 15.6. **Comment:** - P.39 – Add “Toxics” to title and define “impaired waters”.
Response: Toxics is under a separate section (Heavy Metals and Toxics). Impaired waters has been added to the glossary.
- 15.7. **Comment:** - P.45 – a) add a map that depicts how rapidly the bay is flushed by exchange of water with the Pacific Ocean; b) clarify the last two sentences on the 5th paragraph; c) separate Heavy Metals and Toxics because one is natural and the other is controllable; and d) rewrite the end of the last large paragraph.
Response: a) we don’t have such a map; b) both have been rewritten; and c) Heavy Metals and Toxics are combined due to the effect they have on human health and the environment. Heavy Metals in concentrations that are “toxic” to people and aquatic life are caused primarily from active and inactive mines sites and other industrial discharges (in other urban areas) which are unnatural. Other “toxic substances” exist that are not Heavy Metals, such as organic pesticides, high concentrations on convention pollutants and naturally occurring biological substances, such as red tides.
- 15.8. **Comment:** P.46 – a) Define priority organicas b) no one drinks the water (written next to water contact recreation); c) note if soil is the main cause of metals.
Response: P.46 - a) added to glossary; b) to protect swimmers from incident intake of water, water quality standards are more stringent for the use of swimming as compared to noncontact recreation; c) the main cause is not soil.
- 15.9. **Comment:** P.47 – a) Are high concentrations of heavy metals in Chorro Creek from sediment or water; b) change Los Osos Creek to Los Osos Drainage Area; and c) delete “Other Sources” section.
Response: - The sample was sediment in Chorro Creek; b) no, sampling was from Los Osos Creek; c) “Other Sources” has been left in because it is based on sampling data.
- 15.10. **Comment:** P.48 – a) editorial comments, repetitive writing, reconcile “threatened” vs “increasing” categories for mudflats.
Response: Subtidal areas are the most threatened habitats due to increased sedimentation, however all habitats that are dependent upon estuary processes (fresh and salt water mix) are threatened from increased sedimentation from upland and ocean contributions (and human development upland), although some habitats may increase at different times. The goal of the MBNEP is to maintain a balance of habitats.
- 15.11. **Comment:** P.49. - a) Too much speculation; b) under waterfowl habitat; c) recreater is not a word; d) why do health hazards and increasing pollutant loads arise from loss of wetlands.
Response: Language is revised, recreaters is deleted, see Characterization Report.
- 15.12. **Comment:** P.51. – Drought was a much larger impact to fish loss than water diversions.
Response: Droughts occur only periodically, giving native species an ability to adapt to these predicable, periodic, relatively short-term conditions. Water diversions are continuous year in and year out with ceasing which precludes fish from adapting. Also, water diversions are controllable whereas droughts are not.

- 15.13. **Comment:** P.57. - Rewrite 1st paragraph.
Response: Not enough information to rewrite paragraph.
- 15.14. **Comment:** P.63. - Table 4.3.
Response: Comment noted.
- 15.15. **Comment:** P.66 – Table 4.4, add CSLRCD as “S” to Crosscutting Land Acquisition Action.*

Comment Letter 16 CA Conservation Corps (Santangelo)

- 16.1. **Comment:** SED-2 - CCC Watershed Crew can assist in construction of small sediment traps.
- 16.2. **Comment:** SED-3 - CCC Watershed Crew and GIS Crew can assist CA Dept. of Forestry & Fire and USFS in developing/maintaining vegetative management program.
- 16.3. **Comment:** SED-5 - CCC Watershed Crew can be source of technical assistance to landowners implementing BMPs.
- 16.4. **Comment:** SED-6 - CCC Watershed Crew can assist by building/maintaining water bars, sediment traps, maintaining culverts on private/public lands; GIS Crew can assist with inventory/mapping.
- 16.5. **Comment:** SED-7 - CCC Watershed Crew can be source of technical assistance and labor for landowners implementing creek restoration projects.
- 16.6. **Comment:** SED-8 - CCC Watershed Crew can provide all services to revegetate north sandspit.
- 16.7. **Comment:** BACT-2 - CCC Watershed Crew can continue fencing efforts.
- 16.8. **Comment:** BACT-8 - CCC Watershed Crew can assist contractor in installation of bird-deterrent floats.
- 16.9. **Comment:** NUTR-5 - CCC Watershed Crew can assist in planting vegetative filter strips.
- 16.10. **Comment:** HMT-2 - CCC Watershed Crew can assist in promoting use of IPM activities.
- 16.11. **Comment:** HAB-2 - CCC GIS Crew can be primary source or assist with mapping activities.
- 16.12. **Comment:** HAB-3 - CCC GIS Crew can inventory habitat resources; CCC Watershed Crew can restore upland habitat areas and conduct outreach programs.
- 16.13. **Comment:** HAB-4 - CCC GIS Crew can be primary source or assist with mapping activities.
- 16.14. **Comment:** HAB-7 - CCC Watershed Crew can implement riparian management programs.
- 16.15. **Comment:** HAB-10 - CCC Watershed Crew can continue work to remove/control non-indigenous plants.
- 16.16. **Comment:** STL-2 - CCC Watershed Crew can construct in-stream habitat structures, remove fish migration barriers, log jams, and invasive species.
- 16.17. **Comment:** STL-3 - CCC Watershed Crew can conduct habitat typing activities, placement of in-stream structures.
- 16.18. **Comment:** STL-4 - CCC Watershed Crew can implement erosion control methods, riparian planting and bank stabilization projects.

- 16.19. **Comment:** EDU-11 -CCC Watershed Crew and AmeriCorps members can plan/provide educational opportunities for K-12 schools.
- 16.20 **Comment:** (Proposed) 4th Cross-Cutting Action (could be 10th Priority Issue) (establishing, within the CA Conservation Corps' Los Padres Service District, a CCC Morro Bay Watershed Crew.
Response 1-20: A new Cross-Cutting Action for a Watershed Crew is included in the final CCMP and has been added as supporting implementer and CCC has been added as supporting implementer.

Comment Letter 17 CCNHA (Perryess)

- 17.1. **Comment:** NHA should be changed to CCNHA; Natural History Association should be changed to Central Coast Natural History Association. *
- 17.2. **Comment:** References to "Morro Bay Natural History Museum" should be changed to "The Museum of Natural History Morro Bay State Park." *
- 17.3. **Comment:** EDU-1 – Background/Major Issues – reword section so they support the implementation strategies. *
- 17.4. **Comment:** EDU-7 – Change "Sponsor" to "Coordinate and find funding for" *
- 17.5. **Comment:** EDU-11 – Delete "with assistance of AmeriCorps" as they are already identified as primary implementer in Table 4.12. *
- 17.6. **Comment:** EDU-8 – Museum visitor numbers could be added to "Background/Major Issues" section; CCNHA should be sole contractor for exhibit development under "Implementation;" change language in "Basis for Cost" *
- 17.7. **Comment:** EDU-9 - Does not support all implementation strategies. Could be remedied by making it two actions.
Response: EDU-9 will remain one Action Plan. a) Implementation action will be moved to EDU-8. b) "Increasing the public's understanding of the environmental issues facing M.B. and providing opportunities for the community to participate in "creating solutions" is the mission of the MBNEP and will be reviewed and developed through the Annual Workplan rather than being part of an Action Plan. c) "Encouraging continued collaboration among environmental groups by supporting and maintaining bi-monthly environmental organizational meetings," will be facilitated through quarterly Task Force meetings.
- 17.8. **Comment:** Table 4.12 – If changes are made to EDU-9, CCNHA could be primary in newly created action.
Response: A newly created Action Plan is not added.
- 17.9. **Comment:** Change MBNEP from secondary to primary for EDU-7. *

Comment Letter 18 MEGA (Marla Morrissey)

- 18.1. **Comment:** Include MOU/charter between all official participants regarding integrity and professional interaction.
- 18.2. **Comment:** Establish mechanism to ensure ongoing cooperative dialogue for coordination of efforts and partnerships.
Response 1-2: A MOU is included as a mechanism for cooperation during implementation, in Chapter 7.
- 18.3. **Comment:** Add inspirational message at the start of the CCMP. *
- 18.4. **Comment:** Address impacts of Duke Energy Expansion on bay and upland Coastal Dune.
Response: See Research section in Chapter 5.

- 18.5. **Comment:** Use a binder so CCMP can be a living document.*
- 18.6. **Comment:** Include potential for endowments with land acquisitions.
Response: Consent decree funds may or may not be used for such endowments and until a legal opinion is provided, the change will not be made. There is nothing in the final CCMP as written to prohibit endowments.
- 18.7. **Comment:** P.45 – Add 3rd paragraph to page 142.*
- 18.8. **Comment:** P.48 – Change “may be” to “are”.*
- 18.9. **Comment:** P.49 – Change wording to indicate habitats are threatened.*
- 18.10. **Comment:** P.59 – Add MEGA*
- 18.11. **Comment:** P.66 – Add “resolve non-point source pollution on upland habitats.”*
- 18.12. **Comment:** P.68 – Be sensitive to private property owners’ view of “take” influence.*
- 18.13. **Comment:** P.69 – Add “criteria.”*
- 18.14. **Comment:** P.104 – Disallow use of creek beds for horse trails as bacteria load from manure during low creek flow periods (death knell to steelhead).*
Response: Added “horses” to BACT Objective 3; added promote bridge crossing of creeks under BACT-9; added to STL-1, eliminate creekbeds as horse trails.
- 18.15. **Comment:** Mention Los Osos Creek; make an action item to reflect Los Osos Creek since extractions of water may already be exceeded.
Response: Monitoring of water quantity in Los Osos creek is included in the Monitoring Plan. EDU-5 calls for addressing water quantity issues in Los Osos.
- 18.16. **Comment:** P.174 – First paragraph add “coastal dunes,” second paragraph add “loss of biodiversity.”*
- 18.17. **Comment:** P.202 & 205 – Add Steelhead and Stream recovery Coalition for the So. Central Coast of California.*
- 18.18. **Comment:** P.207 - Add another implementation action to “identify and prioritize steelhead impediments on Los Osos Creek.*
- 18.19. **Comment:** P.214 – Revise order of Funding Sources.*
- 18.20. **Comment:** P.215 – Add Martinez & Morrissey Properties” on Los Osos Creek under “Examples of Similar In-Place Actions.*
- 18.21. **Comment:** P.219 – Add Salmon and Steelhead Awareness Month as EDU implementation task.*
- 18.22. **Comment:** P.220 – Add Mobile Watershed Van as a new Action Plan.
Response: Comment not accepted without WC endorsement.
- 18.23. **Comment:** P.220 – Add bird friendly boating and recreational use signs as education implementation action.*
- 18.24. **Comment:** P.221 – Add MEGA under Education actions.*

18.25. **Comment:** P.221 – Add Estero Conservation Alliance under EDU actions.*

Comment Letter 19 SWAP

19.1. **Comment:** HAB-10 – Add/change language. *

Comment Letter 20 Bay Foundation

A. Specific Comments:

20A.1. **Comment:** P.7, Chapter 2 - Reference should be made regarding Baywood sand as soil type.*

20A.2. **Comment:** Include map to identify areas referenced in 2.3.3.*

20A.3. **Comment:** P.21 - Revise status of American Peregrin Falcon.*

20A.4. **Comment:** P.22, Table 2.3 – population trends are inaccurate as to LO/Baywood Park.

Response: Updated population figure from the Los Osos Chamber of Commerce, 14,800, has been added.

20A.5. **Comment:** P.23 – Map fails to include legends and is unclear.*

20A.6. **Comment:** P.25, Table 2.4 - Description of BF's role in education and scientific research is inaccurate.*

20A.7. **Comment:** P.26, 2.4.3 – Land use designations for SLO County are inaccurate.*

20A.8. **Comment:** P.34, 2.4.2 – Revise chart of Los Osos drinking water supplies impacts.*

20A.9. **Comment:** P.35, 2.5.2 – Language re M.B. Cayucos WWTP needs to be clarified.*

20A.10. **Comment:** P.48, Table 2.8 – Is there evidence to support statement that “abandoned mines is a high contributor to heavy metals in M.B.” If so, add references and citations.

Response: Table 2.8 is revised and additional evidence relating to inactive mine pollution is included.

20A.11. **Comment:** P.56, Sec. 3.2 – 2nd and 3rd paragraphs are redundant.

Response: Comment not accurate; 2nd paragraph discusses regulatory programs, and 3rd paragraph discusses resource management programs.

20A.12. **Comment:** Through document, request references to studies and citations.

Response: Not accepted; all references/citations are available in Characterization and will be deleted from CCMP.

B. Comments to Table 4.2, Action Plan Components.

20B.1. **Comment:** Should BF be listed at primary for more action items (e.g., land acquisition).*

20B.2. **Comment:** Action plan did not list ACOE Feasibility Study as an action item.

Response: The ACOE Feasibility Study has been included in the CCMP as SED-10.

20B.3. **Comment:** Land Acquisition - BF does not support because of lack of detail – need to prioritize acquisition approaches. The prioritization was to be part of the action plan. This may be a priority for the next work plan.

Response: The existing subcommittee on Habitat is working to develop selection criteria which will be used to guide land acquisition actions.

Comment: SED-1-Lack of detail.

Response: Comment noted.

Comment: SED-5 - Continuation of ongoing program—need more efficiency.

Response: Comment noted.

Comment: SED-6 - Unclear that this is supposed to be done.

Response: Comment noted.

Comment: SED-7 - Include other drainage areas and tributaries in the project description?

Response: Comment noted.

Comment: BACT-2 - Revise (“provide incentives to implement grazing management measures to reduce bacteria levels”)

Response: Comment noted.

Comment: BACT-5 - APDP grant, why BF?

Response: BACT-5 is more than an APDP project and it will continue in the future. BF is not listed as a funding source for this action and has been removed as a primary implementer.

Comment: BACT-7 - Is this a good idea—introducing exotic species?

Response: The oysters cannot reproduce in the cold water temperatures of M.B.

Comment: BACT-8 - BF does not support due to questionable benefit.

Response: Comment noted.

Comment: BACT-10 - Should not have to pay for this.

Response: Funding source for this action is existing agency staff resources.

Comment: NUTR-2 - Not clear if LOCSD will support this.

Response: Comment noted.

Comment: NUTR-3 - Need more information.

Response: Comment noted.

Comment: NUTR-5 - Include incentives?

Response: Comment noted.

Comment: NUTR-6 - Include incentives?

Response: Comment noted.

Comment: FLOW-1 - Need more information.

Response: Comment noted.

Comment: HMT-6 - \$1.6 million for study?

Response: Construction of the project is estimated at \$2-3 million. Feasibility Studies have been done.

Comment: HAB-6 - ACOE Feasibility Study action plan. Needs to be separate action plan.*

Comment Letter 21 Friends of the Estuary

21.1. **Comment:** Add index organized by user interest for quick reference.

Response: Unfortunately, due to limited staff resources, indexes organized by user groups could not be added. Table 1 is a preliminary list.

- 21.2. **Comment:** CCMP is a “living document and will be revised.”
Response: Noted. The final CCMP will be distributed in a format that fits into a 3-ring binder. Revisions and updates will be distributed so that they may be easily incorporated into the document.
- 21.3. **Comment:** Chapter 1 - Add new section at the beginning entitled “Executive Summary,” that explains the document.*
- 21.4. **Comment:** Chapter 2 – Very few references; should be clear instructions for those who wish to see original documents.
Response: See response to EPA 1.1.
- 21.5. **Comment:** Chapter 2 – Lacks clear definition of “non-point source pollution.”
Response: Nonpoint source pollution is defined in the Glossary.
- 21.6. **Comment:** Chapter 3 – Base Programs Analysis introduction could benefit from a more upbeat rewrite.
Response: Revisions have been made to Sec. 3.1.1. Purpose of Base Programs Analysis on P.53.
- 21.7. **Comment:** Chapter 4 – Include additional comments on Table 4.2.
Response: Without specific suggestions for revision, no change was made.
- 21.8. **Comment:** Chapter 4 – Create a new chart for each action plan to indicate specific P/S organizations that will participate in evaluation process.
Response: We have placed an “M” next to agencies that currently conduct monitoring and note that “P” (primary role) includes monitoring.
- 21.9. **Comment:** Chapter 4 – Identify specific agencies/orgs as evaluators, beginning with 4.6 HMT through the last section, 4.9, EDU. *
- 21.10. **Comment:** P.66, Table 4.3 - FOE should be listed as “S” under TMDL’s. *
- 21.11. **Comment:** P.80, Table 4.5, Sedimentation - FOE should be listed with an “M: for monitoring actions related to SED-1 through 9.
Response: Primary responsibility for monitoring of Action Plans resides with “P” designation. We have added FOE as “S” for all SED actions.
- 21.12. **Comment:** P.105, Table 4.6, Bacteria - FOE should be listed with an “M” for BACT-4 and 5.
Response: FOE is shown with “S” for BACT 4 & 5.
- 21.13. **Comment:** P.105, BACT-4 - Better define “illegal” moorings.
Response: The definition is the one used by the DFG, the authorizing agency.
- 21.14. **Comment:** How do moored boats quantifiably impact environmental quality of the bay?
Response: Moored boats have the potential to discharge human waste into the Bay.
- 21.15. **Comment:** Review/incorporate aspects of Fish & Game plan to regulate moorings in Windy Cove.
Response: Since DFG is the lead for this Action Plan, we will defer to them.
- 21.16. **Comment:** P.115, BACT-5 - Confirm boat removal costs.*
- 21.17. **Comment:** Table 4.8, Freshwater Flow - Add FOE with “M” for monitoring actions related to Flow-1 & 2
Response: See response to #11.
- 21.18. **Comment:** P.176, Table 4.10, Habitat - List FOE with “M” for monitoring actions related to HAB 1-10.
Response: See response to #11.

- 21.19. **Comment:** P.202, Table 4.11, Steelhead. Should FOE be listed in STL-1 to actively lobby for the implementation of the NMFS Recovery Plan?
Response: This task was not specifically identified during Action Plan development, although this does not preclude FOE from working in this area.
- 21.20. **Comment:** P.202, Table 4.11, Steelhead - FOE should be listed with an "M" for STL-2 through 5.
Response: See response to #11.
- 21.21. **Comment:** P.221, Table 4.12, Public Education & Outreach - FOE should not be listed for EDU-13.*
- 21.22. **Comment:** P.221, Table 4.12, Public Education & Outreach - FOE involvement in EDU-11 is likely to be shaped by priorities of individuals.
Response: Noted.
- 21.23. **Comment:** Environmental Monitoring Program. Change section so it reflects the level or method of assessment rather than the priority problem.
Response: Format guidelines of the NEP will be used in developing the Monitoring Program.
- 21.24. **Comment:** Move EDU-6 into Monitoring Section with following changes: (a) Delete "The primary benefit of this action is to provide education/outreach to the public..." Instead, emphasize validity of volunteer collected data. (b) Move MBNEP from primary to support role; (c) Identify which components of monitoring plan are to be carried out by volunteers.
Response: EDU-6 has been added as a Cross Cutting action plan.
- 21.25. **Comment:** Identify monitoring activities that are going to require agency involvement.
Response: See response to number 7 & 8.

Public Education/Outreach. Table 4.12

- 21.26. **Comment:** EDU-2 - Remove FOE as implementing organization. *
- 21.27. **Comment:** Change FOE from primary to secondary organization for EDU-1 and EDU-7. *
- 21.28. **Comment:** EDU-6 - Change MBNEP from primary to secondary organization and the CCRWQCB from secondary to primary. *
- 21.29. **Comment:** Change EDU-6 to MON-1.
Response: See comment 21.24.
- 21.30. **Comment:** EDU-7 - Change MBNEP from secondary to primary organization. *
- 21.31. **Comment:** Reword EDU-1 and its Background/Major Issues section to support implementation strategies. *
- 21.32. **Comment:** Background/Major Issues section should be more broadly written to address how individuals throughout the watershed play a role in the health of M.B. *
- 21.33. **Comment:** EDU-7 - Change language to read "Coordinate and find funding for" rather than "sponsor." *
- 21.34. **Comment:** EDU-8 - Language change regarding Costs inclusion.
Response: Costs will be revised when Action is implemented.

- 21.35. **Comment:** EDU-9 - Split into two separate actions to support all implementation strategies. (One action -- "Increase communication to the public through mass media." The other, "Increase communication and understanding of environmental issues facing M.B. through public meetings and hands-on exhibits."
Response: See response to Letter #17, 7.
- 21.36. **Comment:** EDU-11 - Delete "with assistance of AmeriCorps" as they are already identified as primary implementing organization on Table 4.12. *
- 21.37. **Comment:** Added Action. Under EDU Objective 3, add Action EDU-14: "Reconvene the Morro Bay Task Force quarterly meetings." Primary implementers could be MBNEP, FOE, and Bay Foundation.
Response: The MBNEP implementation structure calls for reconvening the Task Force.
- 21.38. **Comment:** P.245, EDU-12 - Mini grants program should include small capped grants for student research projects.
Response: MBERF can only fund on the ground implementation projects. Research Project will need to be funded through the annual operating budget of the MBNEP.
- 21.39. **Comment:** Additional Action Plans are needed for ACOE Habitat Restoration Feasibility Study and Duke Energy Expansion.
Response: See response to EPA Letter #1, 47.
- 21.40. **Comment:** P.249, Chapter 5 - Environmental Monitoring Plan should be distinguished from Chapter 6. Action Plan Performance Monitoring. How do the efforts interact? Estuarine and marine habitats must be monitored, which brings up disparity between Study Area (Fig. 2.1)
Response: The summary of the Environmental Monitoring Plan is contained in Chapter 5. Chapter 6 includes a more brief outline of this Environmental Monitoring Plan under the 3rd column entitled, "Environmental Evaluation." The 2nd column in Chapter 6, Table 6.1, entitled, "Programmatic Evaluation" is a brief outline of measures to track implementation of Action Plans.
- 21.41. **Comment:** P.254-255, Sec. 5.4 - Need to add research priorities for marine and estuarine environments.
Response: Staff have reviewed the Research Needs Workshop Report and included remaining needs in the final CCMP in addition to other research needs that have been identified since the Research Needs Workshop was held in the mid-1990's.
- 21.42. **Comment:** Data Management should be more fully detailed.
Response: The Data Management Strategy is included in Vol. 2. Data will be accessible through the CCRWQCB" web page which will be linked to the mbnep.org website.
- 21.43. **Comment:** P.262-263, Figure 1.1 - Proposed MBNEP Implementation Structure. Text and table should more clearly indicate where the implementers fit into the scheme.*

Comment Letter 22

Sustainable Conservation (Neale)

- 22.1 **Comment:** Appendix B - Clarify "permit streamlining" term. *
- 22.2. **Comment:** Appendix B - Objective. Add "Voluntary" and "within the guidelines of the NRCS." *
- 22.3. **Comment:** Appendix B - Methods. Add "Watershed Based Permits." *
- 22.4. **Comment:** Appendix B - Partners (would prefer to list all funders to the PIR program and not include exact amounts.
Response: Partners - last sentence was deleted and first sentence revised to include "foundation and others."

- 22.5. **Comment:** Cost boxes seem to be redundant (i.e., SED-5, SED-2) – same or different funds?
Response: Noted. Costs were provided by NRCS.
- 22.6. **Comment:** Review implementing organizations – any regulatory agency with jurisdiction over an area could be included as “support.”
Response: Actions have been reviewed to insure regulatory agencies with jurisdiction have been included as primary or support implementing agencies.

Comment Letter 23 **Coastal Alliance on Plant Expansion (Groot)**

- 23.1. **Comment:** Address any adverse impacts Duke Energy may have on marine environment and overall health of the estuary.
Response: Additional information is included in the Final Characterization and Chapter 2 of the Final CCMP regarding adverse impacts from the Duke Energy Power Plant. Research needs, associated with this facility, are included under the Research section.

Comment Letter 24 **Brian Duke**

- 24.1. **Comment:** Sec. 2.2.5, p.11 - Chorro Reservoir: Clarify flow figures.*
- 24.2. **Comment:** Sec. 2.3.2, p. 13 - Fisheries; text references “California” halibut. Should be “Pacific” halibut.*
- 24.3. **Comment:** Fig. 2.3, p. 23 - No legend, no scale, no north arrow.*
- 24.4. **Comment:** Sec. 2.4.3, p. 26 - Land Use; clarify distinction between dunes and sandspit.*

Comment Letter 25 **Sylvia Rosenberg**

- 25.1. **Comment:** Does not address NEP’s role in limiting future development around bay periphery.
Response: The MBNEP does not have the authority to regulate land use. Brad Hagemann to follow up with thank you letter.

Comment Letter 26 **Eric G. Barham**

- 26.1. **Comment:** CCMP most impressive. Would like to contribute to the program.
Response: Brad Hagemann to follow-up with thank you letter.

Comment Letter 27 **James Bower**

- 27.1. **Comment:** Document too lengthy.
- 27.2. **Comment:** Duplication of efforts.
- 27.3. **Comment:** How to determine location of non-point source of pollution.
- 27.4. **Comment:** Responsible agencies.
- 27.5. **Comment:** How to distinguish mandatory from voluntary actions?
- 27.6. **Comment:** What is BMP to control pollution?
Response 1-6: Brad Hagemann provided thank you letter for comments and additional information, including the Vol. 3 – MBNEP Base Program Analysis and Clean Water Act.

Comment Letter 28 **Ronald E. Gaston**

- 28.1. **Comment:** Possible solution to sedimentation entering the bay – breach sandspit at the southern end.
 Response: Brad Hagemann to follow-up with thank you letter for comments.

Comment Letter 29 **Marie Smith**

- 29.1a. **Comment:** Add the words “migrating and wintering birds” to p. 4, 174 and elsewhere.*
- 29.1b **Comment:** Add “wildlife” to glossary to include migrating and wintering birds.*
- 29.2 **Comment:** Create a series of maps to identify ongoing impacts associated with Los Osos drainage problems. Develop a monitoring plan to assess impacts prior to the completion of the Los Osos Wastewater Treatment Facility, Consider locations in Los Osos that may benefit from groundwater recharge. A map to indicate freshwater flow, types of habitats, and special status species.*
 Response: See HAB 2 and HAB 4
- 29.3 **Comment:** P.25, under ground water recharge, add “protection of freshwater wetlands.”
 Response: The language is taken from the State Central Coast Regional Water Control Board’s Basin Plan and cannot be changed.
- 29.4 **Comment:** Develop a “volunteer patrol” of people who enjoy walking in the vicinity of the estuary to systematically observe impacts and report problems impacting the bay and wildlife habitat that include: Invasive plants, Runoff and litter accumulating in the bay perimeter and beaches, Clogged drainage filters, pipes and ditches, Paths established through public use that need to be replanted to prevent erosion.
 Response: A Volunteer Patrol Program has been incorporated into EDU-1.
- 29.5 **Comment:** Removal of litter that accumulates near public benches and in parking lots adjacent to the beach and public access areas (i.e., Pasadena Drive in Los Osos is particularly important because it is a drainage area in the winter); add signage to encourage people to deposit their refuse in trashcans;
 Add bike racks to public access areas; Trash receptacles should be wind, dog and bird proof in public access areas and should be emptied regularly (especially Morro Rock Ecological Reserve, and the 2nd St. pier in Los Osos).
 Response: These have been included in EDU-10
- 29.7 **Comment:** Need to create drainage system to address urban runoff in Los Osos.
 Response: See Cross-Cutting Drainage Action Plan.
- 29.7 **Comment:** Add signage to drains that run directly to the bay.*
- 29.7b **Comment:** Need to add filters to drainage systems that flow directly to the bay.*
- 29.7c **Comment:** Develop information on current street sweeping patterns and add sweeping services for roads in nonresidential areas to address automobile pollutants.*
- 29.8 **Comment:** Develop a native plant seed bank to support revegetation of common areas surrounding the bay.
 Response: This has been incorporated into EDU-11 based on the work of MEGA and AmeriCorps and the Los Osos Middle School Earth Club goals to carry out native plant revegetation projects.
- 29.9 **Comment:** The Draft Estero Plan suggests that the First St. public access area in Los Osos accommodate kayaking, canoeing and sailing. Cumulative impacts from the number of boats entering the bay from that access point should be considered. This area should be primarily for walking, biking and running, and could provide information through signage that informs people about proper uses of access areas, and help people to understand the long-term impacts of recreational activities.*
 Response: See EDU-2 (marine education) and EDU-10 (public access).

29.10 **Comment:** Expand protected Sweet Springs wetlands to include the East Sweet Springs area, including adding a boardwalk similar to the Elfin Forest that runs between Pismo St. to the bay overlook at the end of Pismo.

Response: Comment noted.

29.10a **Comment:** Develop a docent program to lead tours of the area to provide information on what wetlands look like; how wetlands function; and the relationship of wetlands to the estuary.
MBNEP Speaker's Bureau (see EDU-1).

29.10b **Comment:** Make Third Street between El Morro and Pismo a walking lane only with access to car traffic for residents only to maintain a buffer zone that would diminish impacts from urban runoff by limiting the street to foot traffic and bikes.

Response: Comment noted.

CCMP Public Survey

** Please note a summary of responses to a Public Survey on the draft CCMP is located at the end of this document.*

Comment Letter 3 – USDA/NRCS – Scott Robbins

#	Section	Page #	Paragraph	Note
1	1.2.2	3	3	Change the word <i>increased</i> to <i>accelerated</i> . Accelerated is the term commonly used to describe an increase in the sediment rate caused by human actions.
2	1.2.2	3	3	Change the word <i>increasing</i> to <i>the expansion of</i> , when describing impervious surfaces.
3	2.1.2	5	1	Change the word <i>off</i> to <i>from</i> in the first line of this paragraph.
4	2.1.3	6	Figure 2.1	Enlarge and clean up the map.
5	2.1.3	7	1	The phrases " <i>which terminates in a salt marsh delta in the northeast portion of the estuary,....Los Osos Creek....which terminates in tidelands...</i> " are repetitive of phrases used in the previous paragraph.

=	Section	Page =	Paragraph	Note
22	2.3.10	18	2	This paragraph describes the Chorro Flats Enhancement Project. It should be noted within this paragraph that the Chorro Flats Enhancement Project was undertaken by the CSLRCD.
23	2.3.11	19	1	Continuity is spelled incorrectly.
24	2.3.12	21	Table 2.2	In the column labeled Trend, there are some blanks and also some N/As. If the trend is unknown then it should be listed as unknown, if the trend is stable then it should be listed as stable.
25	2.4.1	22	1	Delete the word <i>area</i> from the second sentence.
26	2.4.1	22	Table 2.3	If there are 9000 people residing at the CMC, perhaps they should be included in the total population in the watershed.
27	2.4.2	23	Figure 2.3	There are no labels or legend to go with this map.
28	2.5	27	1	There is a lack of consistency with the words used to describe the priority problems of the watershed between this paragraph, Table 2.5 on this page and on page 3. (Example: the sedimentation issue is called <i>Sediment</i> here, <i>Sediment and Erosion</i> in Table 2.5 and <i>Sedimentation</i> on page three.) Similar inconsistencies are found with the other priority problems. I believe the terms used on page 3 are the ones that were used by the work groups.
29	2.5.1	28	1	Delete the word <i>either</i> from the second sentence.
30	2.5.1	28	2	In the second sentence delete the phrase <i>the concern with</i> and replace it with the word <i>in</i> . Also, in the same sentence delete the words <i>is that</i> . This sentence will now read much better.
31	2.5.1	29		The row <i>Warm & Cold Freshwater Habitat</i> is repeated from the previous page.
32	2.5.1	29	Spawning	Change the word <i>ground</i> to <i>gravel</i> .
33	2.5.1	30	1	Eliminate the word <i>may</i> from the phrase "Contributing factors <i>may include</i> :" There is no doubt that these are factors.
34	2.5.1	30	1	Although it is not incorrect to say <i>Rill and sheet erosion</i> , the much more common combination is <i>Sheet and rill erosion</i> .
35	2.5.1	30	2	Change the second sentence by eliminating the word <i>resulted</i> and changing <i>flushing</i> to <i>flow</i> .
36	2.5.1	30	4	Add the word <i>average</i> to the third sentence between the words <i>annual</i> and <i>loading</i> .
37	2.5.1	30	5	Add a phrase such as <i>According to Tetra Tech</i> at the beginning of this paragraph.
38	2.5.1	31	2	In this paragraph a 100-year event is mentioned, is this a rainfall or runoff event?
39	2.5.1	32	4	Change the title of this section from <i>Chorro Flats Enhancement Project</i> to <i>The Morro Bay Watershed Enhancement Project</i>
40	2.5.1	32	4	In the last sentence add the word <i>already</i> between <i>has</i> and <i>trapped</i> .

=	Section	Page =	Paragraph	Note
58	4.2	98	6	Add the phrase <i>with native species</i> to the third bullet under <u>IMPLEMENTATION</u> .
59	4.2	100	1	Add SLO County to the list of agencies that require a permit.
60	4.8	201	2	Add the phrase <i>and tributaries</i> between the word <i>Creeks</i> and <i>through</i> .
61	4.8	203	2	Add <i>ing</i> to the word <i>regard</i> in the sixth sentence.
62	4.8	204	3	Replace the word <i>environmental</i> with the word <i>environmentally</i> .
63	4.8	205	1	Add the NRCS and CSLRCD to the list of support groups.
64	4.8	205	3	Add SB 271 to the list of funding sources
65	4.8	206	1	Eliminate the word <i>can</i> from the third sentence, these activities often do create barriers, there is no need to soft sell it by using modifiers like this.
66	4.8	206	6	Replace the word <i>potential</i> with the word <i>potentially</i> .
67	4.8	209	2	Eliminate the letter <i>d</i> from the end of the word <i>reduced</i> in the first sentence of this paragraph. Add the word <i>an</i> between <i>of</i> and <i>adequate</i> in the fifth sentence of this paragraph.
68	4.8	213	3	In the examples of similar in-place actions, Cal Poly is the landowner for both the Walters Creek and Pennington Creek projects. You could add Chorro Flats to this list as well.
69	4.8	214	4	In the funding sources list, the Wetlands Reserve Program (WRP) is an NRCS program. Also, other programs of the NRCS that might provide funding are EQIP, WHIP and CREP.
70	4.8	216	8	In the last paragraph on this page, in the second sentence, add <i>or aggradation</i> after the word <i>downcutting</i> .
71	4.8	217	7	Add the State Coastal Conservancy to the list of funding sources.
72	Acronyms	269	CNDD	California Natural Diversity Database.
73	Acronyms	270	IMP	Should be IPM.
74	Acronyms	270	LCP	Should be LPC.
75	Acronyms	270	MBWEP	Should be Morro Bay Watershed Enhancement Project.
76	Acronyms	271	NRCS	Should be Natural Resources Conservation Service.
77	Acronyms	271	SRAs	Should be Sensitive Resource Areas.
78	Acronyms	271	WHIP	Stands for Wildlife Habitat Improvement Program.
79	Appendix B	275	5	Capitalize Coastal in the first sentence under <i>Methods Used</i> .

Melissa, thanks again for the opportunity to comment on the draft CCMP. The NRCS looks forward to the final CCMP and in cooperating with the NEP and the rest of the Watershed Committee in implementing the actions outlined in this document. Together

Comprehensive Conservation and Management Plan Public Survey

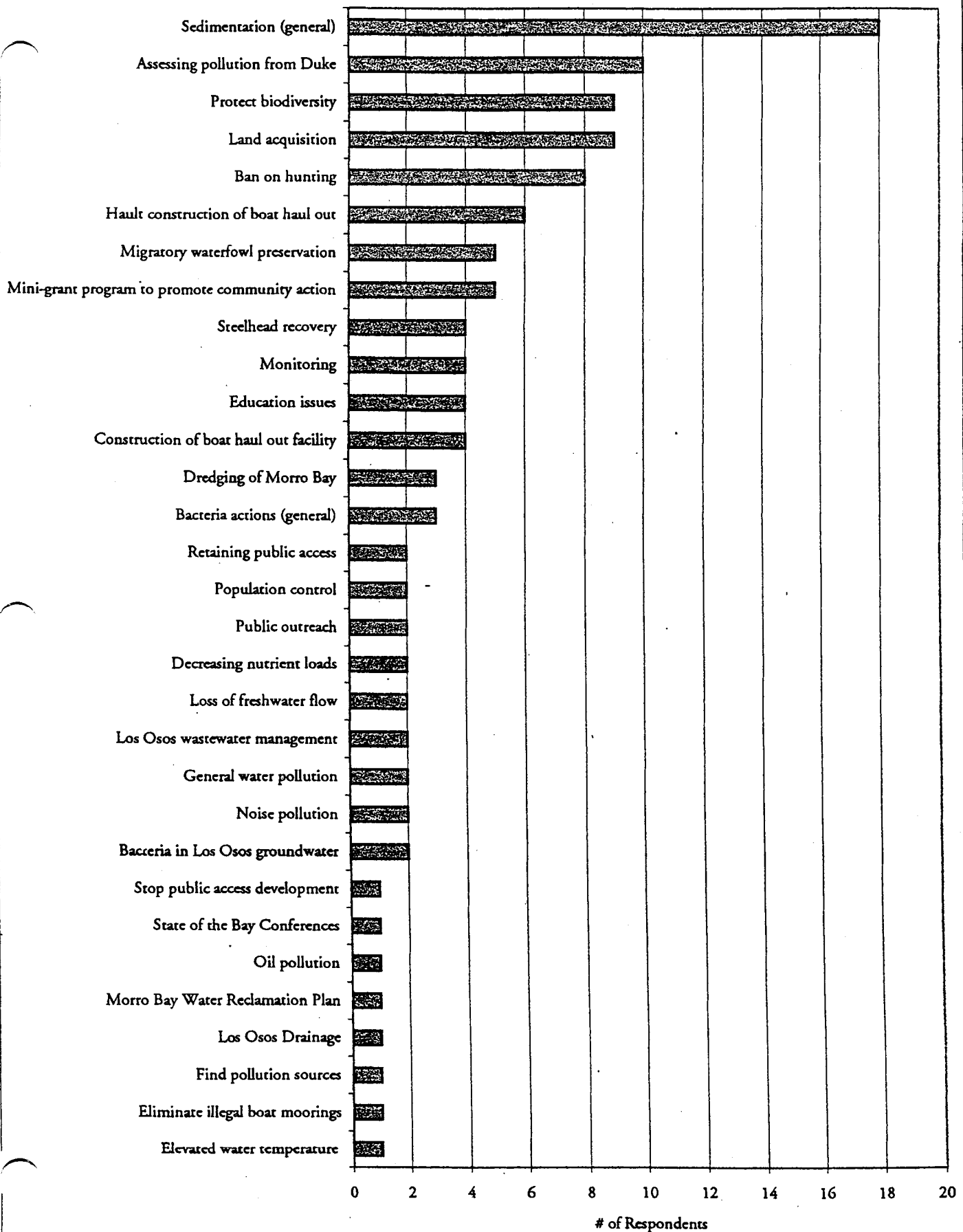
During the public review phase of the CCMP, a survey form was distributed at the CCMP public workshops, local public libraries, and at the NEP office, as an optional form in which to comment on the CCMP. The survey was designed to provide a simple and easy to understand set of questions, as well as summary tables related to the seven priority problems identified in the CCMP. Fifty-seven survey forms were received and are summarized in the following bar charts based on the six questions presented in the survey:

1. Which specific actions or environmental issues do you consider to be the highest priority?
2. What actions will be challenging to implement?
3. Are there any actions that should be changed or added?
4. What role do you see the MBNEP playing in the future?
5. What role do you see yourself playing in the future? Volunteer monitoring? Outreach?
6. How can we improve the CCMP's format, readability, and design?

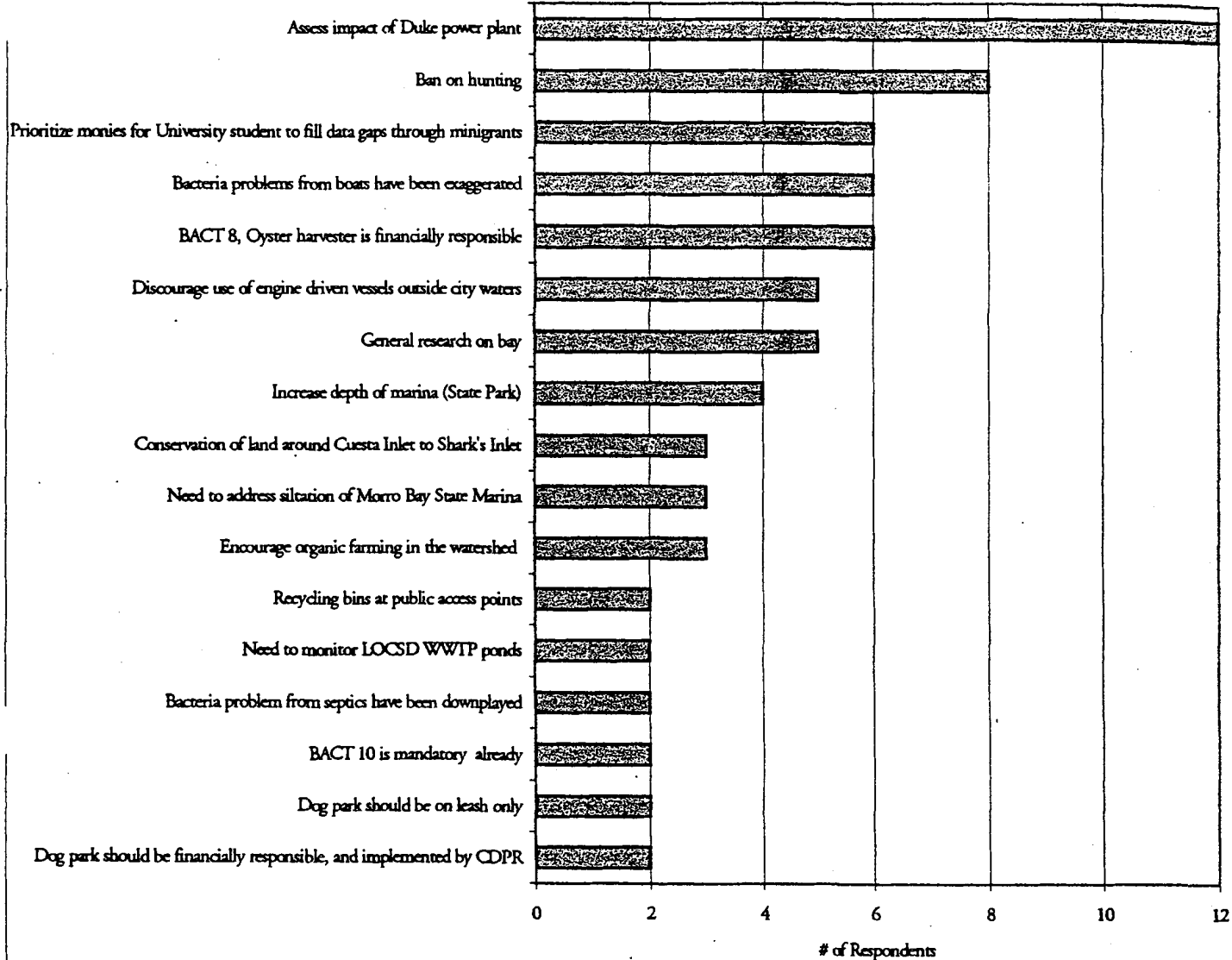
Response to each of the six questions was not mandatory and could include more than one issue, therefore, each bar represents the number of respondents out of a total of 57, and are ranked from high to low. For example, the top five highest priority environmental issues identified by survey respondents (question #1) was: sedimentation (20 responses), followed by monitoring power plant impacts (10), protecting biodiversity (9), land acquisition (9), and a ban on recreational hunting (9).

Survey results will be utilized to develop topics for future forums, exhibits and publications, including newspaper articles, newsletter columns, ongoing website development, and other activities initiated by the Public Outreach and Education Committee during the implementation phase of the Morro Bay National Estuary Program.

Question #1: What are your highest priorities?



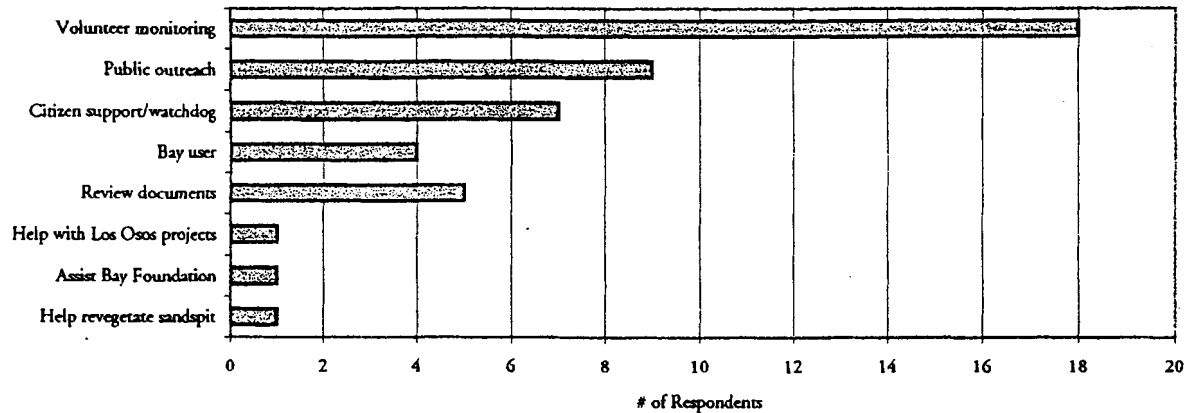
Question #3: What actions can be changed or added?



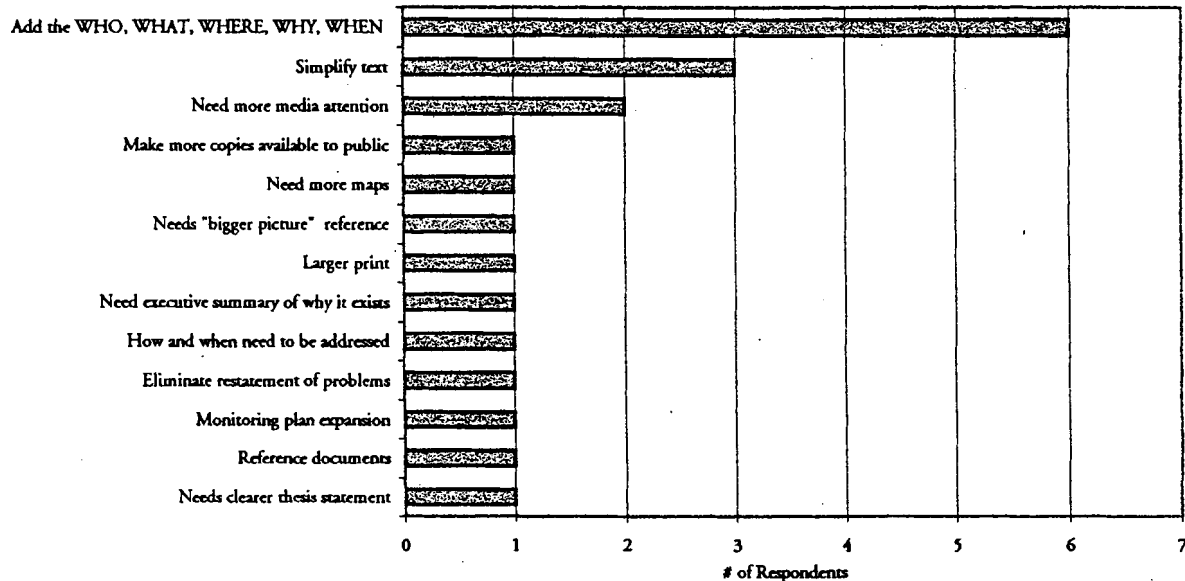
ADDITIONAL COMMENTS: (one respondent per comment)

- Outlaw fishing, doesn't support Steelhead actions
- Remove exotics on sandspit during revegetation
- Study effects of windblown sand from sandspit
- Sediment traps should be maintained by county/CSD
- BACT 3 and 6 should be combined
- NUT 1, 2, 3 already a state issue
- NUT 4 is already being done by DOC
- Fertilizers should be well documented and regulated better
- Need heavy regulation for all heavy metal polluters
- Improve safety of marina
- Revegetate sandspit on east side
- Focus on Los Osos creek water quality
- Boat owners should pay for haul out facility
- Improve Marina sanitation facilities
- Phosphate loading understanding
- Develop customized water quantity standards
- Increase channel depth in back bay
- EDU 2, Boaters already have intensive education from the state
- EDU 2, Need to educate about locally produced pollutants
- EDU 3, Redistribute existing materials to urban home owners
- EDU 4, Pesticide impacts are exaggerated
- EDU 5, Redistribute existing materials
- Volunteer Program's QA should be done professionally
- Need wastewater treatment for Los Osos
- Plant native bivalves to improve water quality
- Could use announcement boards for outreach
- The State of the Bay should be every three years
- Media outreach should include website posting
- Developers should be required to provide public access points
- Public Access point South Bay for birding
- Public Access points should control human and dog impacts
- Make Turning the Tide scientific and natural history based

Question #5: What role do you see yourself playing in th future?



Question #6: How can we improve the CCMP's format?



ADDITIONAL GENERAL COMMENTS:

(one respondent per comment)

- Don't understand 'BMP'
- TMDL needs action not more research
- Habitat Acquisition too expensive for benefit
- SED 6 is not enforceable
- SED 8 appears to most cost effective
- SED 5,7,9 are redundant
- BACT 7-10 are good, innovative ideas
- Cows are not a bacteria concern
- Marina needs sanitation/bilge pump upgrades
- Nutrient sources are natural
- Support LOCSD wastewater proposal
- HAB 7 is vague
- HAB 2-3, in support
- HAB 8, inadequate regulatory arm
- HAB 9, Effectiveness of transplanting eelgrass?
- HAB 9, Include Brant Geese monitoring
- STL 1 is innovative
- FLOW 1,2,4 should be watershed master plan
- Make VMP Crosscutting Action
- HMT 2, Who promotes IPMP?
- HMT 6, Who will construct boat haul out?
- EDU 9, Needs to be focused on each audience
- Improve existing public access points instead of develop more



FEDERAL CONSISTENCY REVIEW



FEDERAL CONSISTENCY REVIEW

SUMMARY

A review of federal activities for consistency with Comprehensive Conservation and Management Plans (CCMP) is one of seven purposes listed in Section 320 of the Clean Water Act (CWA). The Morro Bay National Estuary Program (MBNEP) plans to meet this requirement by using the California Coastal Commission's (CCC) existing federal consistency review process. This will assist in strengthening coordination with existing and new federal partners in the implementation phase of the program. The CCC has agreed to notify the MBNEP of any federal activity that may affect the coastal area in or near Morro Bay and its watershed. The MBNEP can use the CCC's existing mechanisms to comment on activities while retaining NEP authority to comment directly to federal agencies on specific projects, as appropriate.

BACKGROUND

The CCMP integrates local, state and federal programs into action for the Morro Bay watershed. To achieve the stated goals and objectives within the CCMP effectively, local, state and federal governments must strive for coordination among programs. Many federal financial assistance programs and some federal activities have the potential to either enhance or adversely impact the goals of the Morro Bay CCMP.

Section 320(b)(7) of the CWA requires that each NEP review federal financial assistance programs and development projects, as consistent with Executive Order 12372, for the purposes of assessing whether they are consistent with their CCMP. The requirement consists of two parts: a) a one-time review of a current federal activity or financial assistance for consistency with the CCMP; and, b) the development of a process for the continued, ongoing review of future activities.

Section 320(b)(7) of the CWA specifically states that the Management Conference is to review all federal financial assistance programs and federal development programs in accordance with the requirements of Executive Order 12372, as in effect on September 17, 1983, to determine whether such assistance program or project would be consistent with and further the purposes and objectives of the plan [CCMP] prepared under this section.

It further specifies that the review shall not be limited to the EO 12732 programs, but may include any programs listed in the most recent Catalog of Federal Domestic Assistance (CFDA) that may have an effect on the purposes and objectives of the plan prepared under this section.

The statute refers to federal financial assistance programs and federal development programs. These two categories are handled somewhat differently in California. Federal financial assistance programs include federal grant programs. These programs can be found in the CFDA and are part of the State Clearinghouse review program. Federal development programs include development projects or other programs that might impact the estuary such as the development of water quality criteria, dredging, or the establishment of wildlife refuges. These programs may or may not be included in the CFDA.

This section of the CCMP provides an overview of federal projects and programs, identifies possible inconsistencies, and describes the review process to coordinate federal activities with local and state mandates. Not only will this process ensure that future actions related to the CCMP are consistent with local, state and federal mandates, permits and programs, but will provide an opportunity for the MBNEP to acquire new information concerning federal assistance programs and partnerships that would enhance implementation of the CCMP.

INVENTORY OF EXISTING FEDERAL PROGRAMS

The inventories of federal programs used for this assessment include: 1) the MBNEP Base Program Analysis for the MBNEP CCMP, dated December 1998, which includes federal funding, development, regulatory, and planning programs, 2) the CFDA, and, 3) federal development programs identified by existing NEP Federal Consistency Reviews and by the CCC.

A summary of the more significant, critical programs relating to priority problems are noted below:

Priority Problem: Sedimentation

Federal Programs: US Army Corps of Engineers (ACOE): Permitting, Dredging, and Restoration Programs
USDA, Natural Resources Conservation Service: Technical Assistance and Funding Programs
USDA, Farm Service Agency: Conservation Reserve Program and Environmental Quality

Incentives Program: US Forest Service: Fire Operations and Fire Management Program; US Geological Survey: Coastal and Marine Geology Program; National Oceanic and Atmospheric Administration: Coastal Zone Management Program; USEPA: CWA Section 319 Funding Program

Priority Problem: Bacteria and Nutrients

Federal Programs: USEPA: Water Quality Standards and Criteria Program, State Revolving Fund Loan Program
USDA: Technical Assistance and Funding Programs; U.S. Coast Guard: Waste Management Programs; National Oceanic and Atmospheric Administration: Coastal Zone Management Program; USEPA: CWA Section 319 Funding Program.

Priority Problem: Heavy Metals and Toxic Pollutants

Federal Programs: USEPA: Water Quality Standards and Criteria Program, State Revolving Fund Loan Program; Superfund Program; National Spill Prevention and Response Program; National Hazardous Waste Control Program; CWA Section 319 Funding Program; US Coast Guard: Waste Management Program; Oil Spill Prevention and Response Program

Priority Problem: Loss of Freshwater Flow

Federal Programs: USEPA: Total Maximum Daily Load Program; NEPA

Priority Problem: Loss of Habitat and Steelhead Trout

Federal Programs: USEPA: NEPA, CWA Section 404 Permit Program; Dredging Program; Restoration Program; USFWS: Endangered Species Program, National Wildlife Refuge Program; USDA, NRCS: Conservation Reserve Program, Wildlife Habitat Incentives Program; National Oceanic and Atmospheric Administration: Coastal Zone Management Program; USFS: National Forest System

FEDERAL FINANCIAL ASSISTANCE PROGRAMS

The 1997 CFDA (most current version available) contains a list of all federal financial assistance programs. A majority of these programs (435) are listed in Appendix I and are subject to state review as provided for by Executive Order 12372 and administered by the California State Clearinghouse. Federal programs listed in Appendix I are administered by the following 19 agencies: Department of Agriculture, Department of Commerce, Department of Defense, Department of Housing and Urban Development, Department of Interior, Department of Justice, Department of Transportation, National Foundation of the Arts and the Humanities, National Science Foundation, Small Business Administration, Tennessee Valley Authority, Department of Veterans Affairs, Environmental Protection Agency, Department of Energy, Federal Emergency Management Agency, Department of Education, National Archives and Records Administration, Department of Health and Human Services, and Corporation for National and Community Service.

The CFDA also contains additional federal financial assistance programs in the body of the document not contained in Appendix I. These federal programs fall under 21 different agencies: Dept. of Labor, Dept. of State, Dept. of Treasury, Library of Congress, NASA, National Credit Union, National Labor Relations Board, President's Committee on Employment of People with Disabilities, Railroad Retirement Board, Securities and Exchange Commission, International Trade Commission, National Gallery of Art, Overseas Private Investment Corp., Nuclear Regulatory Commission, Commodity Futures Trading Commission, US Information Agency, Scholarship and Fellowship Foundation, Pension Benefit Guaranty Corp., Architectural and Transportation Barriers Compliance Board, U.S. Institute of Peace, Social Security Administration. Upon a cursory review of these programs, it is unlikely that they would be involved in activities in the Morro Bay watershed that would result in strengthening or weakening the goals of the MBNEP.

An inventory of federal assistance agreement programs is also contained in an USEPA document entitled, Federal Financial Assistance Programs Applicable to Coastal Management.

FEDERAL DEVELOPMENT PROGRAMS

The federal agencies and programs listed in the CFDA include development programs in addition to financial assistance programs. However, the CFDA does not include a number of federal development programs included in other NEP federal consistency review, the MBNEP Base Program Analysis, or the list of federally permitted programs used by the CCC. The MBNEP Base Program Analysis lists federal agency programs that have jurisdiction for actions that occur in the Morro Bay watershed (see reference above) that are not included in the CFDA. In fact, there are 61 federal activities that are not included in the CFDA but are in the Base Program Analysis, although most are not directly linked to development. However, many of these programs may directly impact implementation of the MBNEP CCMP. These programs include USEPA programs authorized by the CWA such as Section 303 Water Quality Standards and Total Maximum Daily Load Programs, the Ocean Dumping Program, and NEPA. Overall there are 10 EPA programs, 10 ACOE programs, 9 USFWS programs, 9 NRCS programs, 4 Farm Service Agency programs, 8 NOAA programs, 3 USCG programs, and 8 USFS programs.

CONSISTENCY REVIEW PROCESS FOR ONGOING ACTIVITIES

The review criteria the program will use to review Federal programs, actions, permits or license applications for consistency will be 1) its located in the estuary study area or 2) it may significantly affect the water quality, habitat, etc. within Morro Bay.

After a review of USEPA guidance and federal consistency reviews used by other NEP's, four alternatives were investigated as possible options to meet federal consistency requirements:

1) use the CCC's existing federal consistency review process, which would also strengthen the NEP's coordination with existing and new federal partners in the implementation phase of the program; 2) incorporate the MBNEP into the State's Clearinghouse existing review process which was established in response to EO 12372; 3) establish a new process which involves the MBNEP sending out letters to all federal agencies requesting that they add the MBNEP to their mailing list for any development projects or financial assistance programs; or 4) use the CWA Section 319 Nonpoint Source Management consistency review process California State Water Resources Control Board (SWRCB) Nonpoint Source Management Program.

A program or action selected for review would be found to be consistent with the CCMP if it:

- 1) preserves and enhances water quality within the watershed and estuary;
- 2) protects and restores the biological integrity of the estuary and watershed;
- 3) decreases sediment loading and bacteria loading to the estuary;
- 4) supports policies, targets, and/or actions in the CCMP;
- 5) contributes to the implementation of the CCMP, or
- 6) results in significant economic/social benefits consistent with the CCMP.

No existing federal financial assistance programs were found that adversely impact the Morro Bay estuary or watershed. A one time, current review of existing federal programs was performed through the Base Program Analysis. The following federal programs could be inconsistent with the CCMP, such as ACOE dredging and United States Coast Guard boat maintenance. A number of other programs such as the Public Telecommunications Facilities -Planning and Construction, Flood Control Projects, Bridge Alteration, or Highway Planning and Construction programs have the potential to adversely impact the estuary and watershed either by contaminating water resources, adversely impacting biological communities or their habitats and community.

RECOMMENDED OPTION

After a complete review of all four options, the CCC's consistency review process option, as provided for under Section 307 of the Coastal Zone Management Act (CZMA), offers the most appropriate, viable arrangement for the MBNEP. The CCC is the only agency currently conducting consistency reviews on all federal programs that may affect land or water uses in the coastal zone. The CCC has three categories of federal programs: federal development projects, federal funding projects, and federally permitted projects. Federal development projects may

or may not require a federal permit. The Morro Bay estuary is contained almost entirely within the coastal zone and CCC's jurisdiction.

The CCC has an arrangement with the State's Clearinghouse to receive notification of all relevant federal financial assistance programs (pursuant to EO 12732/Appendix I of the CFDA), which eliminates the need for MBNEP to establish separate notification with the State Clearinghouse. The MBNEP will be able to receive notification of federal funding and project activities for comment in a timely manner and comment directly to the federal agency or to the CCC.

The first step in determining the adequacy of the CCC consistency review program was determining what federal agencies and programs are covered in their review process. The CCC reviews all federal programs for consistency with CZMA and classifies federal programs into three, specific categories: federal development projects, federal assistance projects, and federally-permitted projects. All federal agencies are subject to CCC's federal consistency review.

The CCC receives notice of all three categories from the lead federal agency primarily working through informal networks. Federal agencies are required by CZMA to demonstrate that their projects are consistent with CZMA and, therefore, notify the CCC of their project. In addition, the State Clearinghouse notifies the CCC of federal assistance (from Appendix I of the CFDA). Therefore, we determined that the list of federal programs used by the CCC for consistency determination is adequate for the MBNEP program.

Local, state, or private projects that require federal permits require CCC review. The CCC uses a shorter list of federal agencies for the review of private and local entity sponsored projects that require a federal permit. However, they can review other federally-permitted projects not on their list as long as they get permission from the Office of Ocean Coastal Resource Management. The standard list includes: Department of Defense – ACOE, Nuclear Regulatory Commission, Department of the Interior - Bureau of Land Management and US Geological Survey, Environmental Protection Agency, Department of Transportation -Federal Aviation Administration, and Federal Power Commission. The list does not specifically include the Department of Commerce - National Marine Fisheries, Fisheries Management Plans, Department Response, Pesticides/Herbicide Management, Pollution Prevention Activities, General Services Administration -Disposal of Federal Surplus Real Property, Donation of Federal Surplus Real Property, or the Department of Interior - USFWS.

Federally-permitted projects that have possible development impacts in the coastal zone are subject to the CCC's state coastal permit review process. This process is beyond the authority given for federal consistency reviews for NEP's. The NEP would have the opportunity to comment on individual projects through the CCC permit review process. Therefore, potentially impacting federally-permitted projects that might support or detract from the goals of the MBNEP would be reviewed by the CCC and may require a coastal permit.

For federally permitted projects not subject to CCC's federal consistency reviews, the CCC's Central Coast District Office in Santa Cruz or the local agencies with jurisdiction over Morro Bay's Local Coastal Plans, i.e., the City of Morro Bay and the County of San Luis Obispo, perform permitting reviews. These projects are not sponsored or funded by federal agencies but federal agencies require the project applicants to obtain a federal permit for the project.

In addition, the CCC review procedures include dispute resolution provisions. Federal development projects cannot be appealed. Applicants to federally permitted projects may appeal. First, informal discussions occur. If a solution to an issue is not reached through informal discussions, applicants to federal permit or assistance projects may appeal the CCC's objection to the Secretary of Commerce within 30 days. The Secretary can override a CCC objection if it is determined that the proposal is consistent with the objectives or purposes of the Federal Coastal Zone Management Act or is necessary in the interest of national security.

It is recommended that the MBNEP work with the CCC and their procedures for the NEP federal consistency review. An existing agreement between NOAA and EPA to coordinate Coastal Zone Management (CZM) and NEP activities was signed Sept. 12, 1988 which concludes that NEP's will be coordinated with applicable State CZM planning processes and administration of CZ plans. However, the MBNEP should continue to maintain its authority to comment and coordinate directly with federal agencies on site-specific projects, as appropriate.

ANALYSIS OF OTHER OPTIONS

The other three options investigated by the program are:

1) incorporating the MBNEP into the State's Clearinghouse existing review process (established in response to EO 12372) (includes federal funding programs but not federal development programs (for this reason, this was a less favorable option);

2) establishing a new process which involves the MBNEP sending letters to all federal agencies requesting that they add the MBNEP to their mailing list for any development projects or financial assistance programs; or,

This option would duplicate what already is available through the recommended option while requiring additional paper, time, and resources by both the MBNEP and the federal agencies. Furthermore, USEPA guidance [Interim Final NEP Guidance: Federal Consistency Review as required by CWA 320(b)(7)] states that the intent of the review was not to add additional burden to the already complex existing review processes. Rather it envisions that NEP's would review existing processes available in their state and identify which process is most advantageous for their program.

3) utilizing the SWRCB Nonpoint Source Management Program consistency review per Section 319 of the CWA.

Upon investigation, this option was not viable because no active consistency review process has been established.

CONSISTENCY REVIEW OF ONE TIME CURRENT ACTIVITY

A cursory review of existing federal financial assistance and development programs planned for Morro Bay was done in 1998 in which development programs were found to be inconsistent. In updating the Federal Consistency in 2000, four active projects were identified: a) COE feasibility estuary restoration study, b) USFWS's consideration of establishing a wildlife refuge in the estuary, 3) World Com's cable project, and 4) Morro Bay Duke Power Plant Upgrade Project. The first two continue to be consistent, the third project is being addressed through the USFWS Section 10 Habitat Conservation Plan Program, and the fourth project involve upgrading the facilities at the Morro Bay Duke Power Plant and has recently become the focus of controversy in Morro Bay. The CCMP calls for research to assess the impacts of the project and the MBNEP is promoting local forums to discuss the issues associated with this project. Possible impacts from this project and other projects could adverse environmental impacts to the water and biological resources of the estuary either directly through the construction of equipment, placement of materials, or through equipment operations. Indirect impacts could occur through an increase in the movement of goods or increase in people required as the result of the project.

IMPLEMENTING THE CONSISTENCY REVIEW PROCESS FOR ONGOING ACTIVITIES

The CCC has asked that the MBNEP submit a written request to them stating our interest in using their established federal consistency review process for our federal consistency determinations. Specifically, we plan to work with the CCC San Francisco office on federal consistency review notifications, the CCC Santa Cruz District office on federal permitting reviews, and with the CCC delegated Local Coastal Plan agencies (City of Morro Bay and San Luis Obispo County) on delegated review activities. The CCC has indicated verbally a willingness to support this arrangement.

The MBNEP will need to develop internal procedures to ensure that all participants have an opportunity to comment and to resolve conflicting comments. The CCC will notify the MBNEP when they receive a request for State consistency determination. The program office will have only a short time in which to provide comments on the proposed project. The program will make every effort to notify the management conference to ensure appropriate, consensus comments are provided to the CCC using the mechanisms identified in the implementation structure. However, the quarterly committee schedule may not coincide with the time requirements for comments.

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MANAGEMENT CONFERENCE AGREEMENT

3

3

3

Morro Bay

National Estuary Program

Revised Management Conference Agreement

ENDORSEMENT

Morro Bay National Estuary Program Revised Management Conference Agreement

I have reviewed the Morro Bay National Estuary Program Revised Management Conference Agreement dated October 10, 1997. This agreement includes a Statement of Commitment signed by the Morro Bay National Estuary Program Local Policy Committee, and a Statement of Commitment signed by the Chair and Co-chair of the MBNEP Watershed Committee. The revised agreement delineates the structure, commitments, and activities to be undertaken by the Morro Bay National Estuary Program through the course of the remaining planning period.

As a signatory to this agreement, I hereby endorse the Management Conference Agreement and demonstrate my support and the support of my agency or organization.

Signature 

Printed Name Douglas P. Wheeler

Title Secretary for Resources

Organization California Resources Agency

Date December 4, 1997



ENDORSEMENT

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Signature

Printed Name

Title

Organization

Date

Peter Douglas

PETER DOUGLAS

Executive Director

Calif. Coastal Commission

11/18/97

Rec'd 11/24/97

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Signature

Peter M. Rooney

Printed Name

PETER M. ROONEY

Title

Secretary

Organization

Cal./EPA

Date

12/19/97

RECEIVED

12/26/97

ENDORSEMENT

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As a signatory to this agreement, I hereby endorse the Management Conference Agreement and demonstrate my support and the support of my agency or organization.

Signature

John W. Brown

Printed Name John W. Brown

Title Board Member

Organization State Water Resources Control Board

Date January 27, 1998

received
1/29/98

ENDORSEMENT

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As a signatory to this agreement, I hereby endorse the Management Conference Agreement and demonstrate my support and the support of my agency or organization.

Signature Harold P. Fairly
Printed Name HAROLD FAIRLY
Title CHAIRMAN
CENTRAL COAST REGIONAL
Organization WATER QUALITY CONTROL BOARD
Date JANUARY 29, 1998

ENDORSEMENT

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As a signatory to this agreement, I hereby endorse the Management Conference Agreement and demonstrate my support and the support of my agency or organization.

Signature

Felicia Marcus

Printed Name

for Felicia Marcus

Title

Regional Administrator

Organization

United States E.P.A. Region IX

Date

12 February 1998

MORRO BAY NATIONAL ESTUARY PROGRAM REVISED MANAGEMENT CONFERENCE AGREEMENT

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*** = Required by US EPA National Estuary Program**

Local Policy Committee *Ex officio* members:

The following ex-officio members have been requested to endorse this Agreement. Endorsements are contained in Appendix 5.

John Brown
Paul Lillebo, Alternate
State Water Resources Control Board

Peter Douglas, Secretary
Tami Grove, Alternate
California Coastal Commission

Rusty Fairly, Chairman
Bill Newman, Alternate
Central Coast Regional Water Quality Control Board

Peter Rooney, Acting Secretary
Crawford Tuttle, Alternate
California Environmental Protection Agency

Douglas Wheeler, Secretary
Craig Denisoff, Alternate
California Resources Agency

Felicia Marcus, Regional Administrator
Alexis Strauss, Alternate
United States Environmental Protection Agency

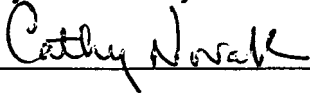
Statement of Commitment by the Morro Bay National Estuary Program Local Policy Committee

As signatories to this agreement, the Morro Bay National Estuary Program Local Policy Committee expresses our support and commitment to the Morro Bay Management Conference Agreement and second-year work plan. The Local Policy Committee (LPC) was established to revise the Morro Bay National Estuary Program Management Conference Agreement.

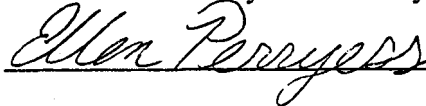
The priority problems of Morro Bay, which have been identified both through research and through a public participation process, include the following: sedimentation; decreased freshwater inflows; deteriorating water quality; and habitat loss. The main goal of the MBNEP is to seek and implement solutions to these priority problems.

The primary responsibilities of the LPC are to: 1) make executive decisions; 2) approve final work plans, budgets, priorities, contracts, final Comprehensive Conservation Management Plan (CCMP); 3) direct the work of the MBNEP Program Director; 4) establish policy for, and in conjunction with, the Management Conference in carrying out the requirements of the program; 5) resolve disputes; and 6) revise the Management Conference Agreement as needed to support achieving the goals of the MBNEP.

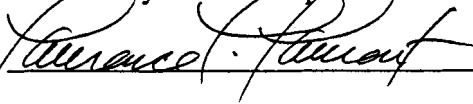
Mayor Cathy Novak, Chair
City of Morro Bay




Ellen Perryess, Co-Chair
Friends of the Estuary at Morro Bay



Supervisor Laurence Laurent
SLO County Board of Supervisors



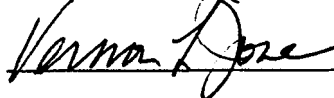
Gary Ruggerone
The Bay Foundation of Morro Bay



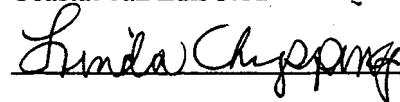
Cheryl McGovern
US Environmental Protection Agency, Region IX



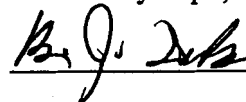
Vernon Jones
Central Coast RWQCB



Linda Chipping
Coastal San Luis RCD



Brian Duke
CA Military Dept., Camp San Luis



Steve Soderstrom
Agricultural Landowner




Statement of Commitment by the Morro Bay National Estuary Program Watershed Committee

As signatories to this agreement, the Morro Bay National Estuary Program (MBNEP) Watershed committee (WC) expresses our support and commitment to the Morro Bay Management Conference Agreement. The WC was established by the founding Local Policy Committee (LPC) and other community leaders to guide the Comprehensive Conservation Management Plan (CCMP) process and ensure adequate representation of agencies, organizations, and local interests.

The priority problems of Morro Bay, which have been identified both through research and a public participation process, include: sedimentation; decreased freshwater inflows; deteriorating water quality; and habitat loss. The main goal of the MBNEP is to seek and implement solutions to these priority problems.

The primary responsibilities of the WC are to: 1) serve as delegates for their interest group and communicate their group's interests to other Management Conference participants during the process of developing the (CCMP); 2) keep those they represent apprised of the progress, actions, and decisions of the Management Conference; 3) advise the MBNEP Program Director on action plan and work plan development; 4) establish and direct subcommittees as necessary to complete the CCMP; 5) review, evaluate, and make recommendations to the Local Policy Committee; and 6) provide representatives to serve as members of the LPC and other subcommittees to facilitate communication between groups.

Approved this 23rd ~~this~~ day of October, 1997.



Chair, Watershed Committee



Co-chair, Watershed Committee

**MORRO BAY NATIONAL ESTUARY PROGRAM
WATERSHED COMMITTEE REPRESENTATIVES**

Agricultural Landowner Representative
Bay Foundation of Morro Bay
Bay Osos Filipino Community Association
Coastal San Luis RCD
CA Department of Health Services
CA Department of Transportation
CA Department of Fish & Game
CA Department of Fish & Game
CA Department of Parks and Recreation
California Military Department
California Mens Colony
California Coastal Conservancy
Central Coast Museum of Natural History
Chevron Corporation
County Service Area 9
Friends of the Estuary at Morro Bay
Los Osos Community Advisory Council
Morro Bay Harbor Department
Morro Bay Public Works Department
Morro Bay Chamber of Commerce
Morro Bay Commercial Fisherman's Assoc.
Pacific Gas & Electric Company
Small Wilderness Area Preservation
SLO County Dept. of Agriculture
SLO County Engineering Department
SLO County Planning & Building Department
U.S. Dept. of Agriculture Natural Resource Conservation Service
U.S. Forest Service
U.S. Fish & Wildlife Service
University of California Cooperative Extension
U.S. Army Corps of Engineers

1.0 Introduction

The Morro Bay Estuary supports the most significant wetland system on California's south central coast. It serves a critical environmental function on the Pacific Coast and serves international interests. The estuary and its watershed support many beneficial human uses, such as agriculture, commercial and recreational fishing, recreational boating, tourist attractions which support a large business community, oyster farming, diverse water oriented recreational opportunities, and electric utility power generation. Morro Bay also provides a protected harbor for offshore marine fisheries. A healthy bay and watershed are important to all of these activities and enterprises. Morro Bay still remains relatively unspoiled. Action needs to be taken to restore, maintain and enhance it now before its resources are irretrievably damaged.

Morro Bay is well known for its rich natural diversity. It supports a wide variety of habitats and numerous sensitive and endangered species of plants and animals. Morro Bay also supports many species of migratory birds protected by international treaties and is an essential link in the Pacific Flyway, providing one of the state's largest waterfowl habitats south of San Francisco. It often finishes within the top five Audubon annual bird counts in the nation.

The Bureau of Land Management and the U. S. Fish and Wildlife Service have highlighted the lack of estuarine data from the central coast of California and the importance of this information to national planning. The lack of such information severely limits the ability to assess potential effects on estuaries of human activities such as those associated with offshore oil and gas development. Morro Bay represents an excellent opportunity to remedy this situation and to provide an example of estuarine planning for other estuaries of similar scale.

There are many known and potential threats to this nationally significant estuary. There is clear and compelling evidence that Morro Bay is suffering from unnaturally rapid, and undesirable impacts, primarily due to accelerated sedimentation. A 1988 study, funded by the State Coastal Conservancy, determined that Morro Bay has lost over a quarter of its volume over the last 100 years, and that it continues to be threatened by unnaturally rapid sedimentation. The need to prevent erosion in the Morro Bay watershed, which results in sedimentation and loss of bay habitat, has been clearly recognized by a wide variety of agencies and organizations.

Other water quality concerns which have been detected in the region and which are currently the subject of monitoring and assessment activities include excessive levels of bacteria, nutrients, and heavy metals in the bay and watershed. Other indications of compromised water quality include unsafe levels of nitrates in Morro Bay wells and Los Osos groundwater, rapidly increasing coverage of intertidal mudflats with algae, and temporary closures to commercial oyster harvest due to high bacteria readings.

Alterations in fresh water flows adversely impact instream resources and brackish water habitats of the estuary. The loss of dry season fresh water inflow has been recognized by the State Water Resources Control Board as a significant problem. Several State and Federally listed and candidate species are at risk, along with the general well being of the estuarine habitat and the economic and social benefits which it supports. The absence of a comprehensive approach to planning and managing fresh water resources creates conflicts between competing water users and the natural resources of the estuary and its watershed.

Through the efforts of governmental agencies and other organizations communicating through the Morro Bay Task Force, strong, widespread, bipartisan support for the development of a management plan has emerged. The Morro Bay Task Force consists of over 250 participants, ranging from state and federal agency representatives to private landowners and the general public. Over 60 different agencies and organizations are represented in this group that has led the effort to develop a comprehensive plan for the Bay and its watershed.

An approach to plan development which includes cooperative effort and community involvement has already been adopted. The Plan will provide a basis for collaborative watershed management, to conduct research, to coordinate the monitoring of water and habitat quality, to promote education and public outreach, and to identify and seek sources of funding for these activities. Local, state, federal agencies, and private organizations support this goal.

In April 1994 Governor Pete Wilson signed Assembly Bill 640 (AB640) (Appendix 1), establishing Morro Bay as California's first State Estuary. This designation recognizes the value of the Morro Bay Estuary and the special need for multi-jurisdictional planning efforts. It also mandates that a plan be developed for this estuary.

2.0 Purpose of the Conference Agreement

In July 1995 the Governor's Nomination of Morro Bay to the National Estuary Program was approved by the United States Environmental Protection Agency (USEPA).

The purpose of this agreement is to delineate the general commitments, activities, products, and schedules for the Morro Bay National Estuary Program (MBNEP). The primary goal of the program is to develop a Comprehensive Conservation and Management Plan within three years. This plan will meet the seven purposes of Section 320(g) of the Clean Water Act (CWA), as well as the guiding principles of the State Estuary Program, as described in this section.

The Comprehensive Conservation and Management Plan (Management Plan) will be developed concurrently with the Morro Bay State Estuary Plan. To this end, this agreement incorporates the purposes and objectives of the National Estuary Program, the guiding principles of the Morro Bay State Estuary Program, and preliminary MBNEP goals as set forth below.

2.1 NATIONAL ESTUARY PROGRAM PURPOSES

The purposes of the National Estuary Program are as follows:

- 1) Assess trends in the estuary's water quality, natural resources, and uses of the estuary;
- 2) Collect, characterize and assess data on toxins, nutrients, and natural resources within the estuarine zone to identify the causes of environmental problems;
- 3) Assess pollutant loadings in the Estuary and relate them to observed and potential changes in uses of the estuarine zone, water quality and natural resources;
- 4) Develop a comprehensive conservation and management plan that recommends priority corrective actions and implementation schedules addressing point and nonpoint sources of pollution to restore and maintain the chemical, physical, and biological integrity of the estuary, including restoration and maintenance of water quality, a balanced indigenous population of shellfish, fish, and wildlife, and recreational activities in the estuary, and assure that the designated uses of the estuary are protected;
- 5) Develop plans for the coordinated implementation of the plan by the states as well as federal and local agencies participating in the conference;
- 6) Monitor the effectiveness of actions taken pursuant to the Plan;
- 7) Ensure that federal assistance and development projects (per Executive Order 12372, September 17, 1983) are consistent with the Management Plan, meet the requirements of CWA Section 320(b)(7) and further the goals of the Plan.

2.2 MORRO BAY STATE ESTUARY PROGRAM GUIDING PRINCIPLES

The State Estuary Program guiding principles are as follows:

- 1) Recognize and describe the importance of protecting and enhancing Morro Bay, its watershed and associated nearshore regions. Include provisions for the protection and enhancement of every aspect of the health of the estuary and associated habitats.
- 2) Develop a common definition of a healthy bay, watershed, and nearshore regions, which incorporates the input and interaction of the entire community of users and beneficiaries of the economic, environmental, and social assets of the estuary and associated habitats.
- 3) Establish a comprehensive, interjurisdictional water quality and habitat protection program for the Morro Bay Estuary and its watershed and provide for its implementation and performance evaluation. To support this program:
 - a) Implement an interjurisdictional planning strategy
 - b) Facilitate implementation of a research program
 - c) Implement an environmental monitoring program
 - d) Implement a coordinated education and public outreach program
 - e) Develop and maintain a geographically referenced watershed data management system which provides information storage, analysis, and presentation support for other components of the program.
 - f) Include methods of implementing and evaluating the success or failure of each plan element.
- 4) Provide for participation in the planning process by all stakeholders, including landowners, the community in general, interest groups, as well as federal, state, and local government agencies.
- 5) Produce and present a management plan and continuing management process in a style which can be understood by the public.

2.3 PRELIMINARY MORRO BAY NATIONAL ESTUARY PROGRAM GOALS

These goals have been identified through the last decade of Morro Bay Task Force activities and the more recent public participation process organized by the Morro Bay Watershed Council. These preliminary goals may be revised as the planning process proceeds. During the course of the overall program, environmental monitoring criteria will be developed to measure progress towards specific numeric objectives developed in pursuit of these goals. The Program goals are as follows:

- 1) Slow the process of bay sedimentation through implementation of management measures which address erosion and sediment transport.
- 2) Reestablish healthy steelhead trout habitat in Chorro and Los Osos creeks through measures including reduction of sediment loading in gravels, stabilization of riparian corridors, removal or mitigation of migration barriers, improvement of water quality, and restoration and maintenance of

adequate fresh water flow.

- 3) Ensure that bay water remains of sufficient quality to support a viable commercial shellfish mariculture industry, safe recreational uses, healthy eelgrass beds, and thriving fish and shellfish populations.
- 4) Ensure the integrity of the broad diversity of natural habitats and associated native wildlife species in the bay and watershed.
- 5) Maintain watershed functional integrity through appropriate riparian corridor management, impervious surface management, fire management, and grazing management.
- 6) Protect social, economic, and environmental benefits provided by the bay and watershed through comprehensive resource management planning.
- 7) Promote public awareness and involvement in estuarine management issues through outreach, educational programs, and the use of volunteers in ongoing bay monitoring and other programs.

3.0 MANAGEMENT CONFERENCE PROGRAM COMMITMENTS

Documents to be delivered and activities to be undertaken as part of the Morro Bay National Estuary Program are described in this section. The specific purposes stated in CWA Section 320 which relate to the program activities are included by reference.

3.1 STARTUP DOCUMENT DEVELOPMENT

Public Participation Strategy

A collaborative and consensus-building process is fundamental to the planning effort already underway. A Public Participation Strategy has been developed and will be implemented during the course of the program. This document describes efforts to educate the community about the problems facing the estuary and its watershed. A variety of public participation activities are being conducted and documented, which include public meetings, outreach to community groups, publications, newsletters, regular newspaper and television coverage, and participation in community events. The public will be included in the problem identification process through participation in public meetings and topical work group activities. Public access to the planning process will be facilitated through the placement of the program office adjacent to the Bay, and through an electronic bulletin board system (BayNet) dedicated to the Morro Bay program. A summary of these efforts will be included as an appendix to the Management Plan.

Clean Water Act (CWA) 320 (b)(4), CWA 320 (b)(5)

Data Management Strategy

The Data Management Strategy describes existing data sources, and develops recommendations for managing and communicating this information. It will describe data storage, maintenance, quality assurance, and accessibility. This document will describe the opportunities for interagency data management, and timeline for implementation. It will integrate existing monitoring and data collection programs with new programs developed as part of the MBNEP.

CWA 320 (b)(1), CWA 320 (b)(2), CWA 320 (b)(3) 320(d)

3.2 MANAGEMENT PLAN DOCUMENTS

Base Program Analysis

This document will include an inventory and analysis of existing public and private sector programs within the Morro Bay estuary, its watershed, and nearshore areas. All levels of government jurisdiction will be considered. The scope and effectiveness of programs and their potential for conflict as well as recommendations for potential resolution will be included in this analysis. The analysis will address gaps, ineffectiveness and inefficiencies in existing programs, as well as opportunities for redirecting existing regional, state, and local resources and programs to address priority problems.

The process of creating an inventory and analysis of federal, state and local programs was initiated some

time ago. Existing lists and assessments will be refined and will provide the basis for the Base Program Analysis. Previous studies of the existing programs and jurisdictions related to the management of the bay have indicated that the lack of a unified, comprehensive approach has been an obstacle in the path of effective management and planning. This inventory and analysis of public and private sector programs will be created during the first twelve months of Management Plan development, and will be included as an appendix to the Management Plan, with a summary included in the Plan itself.

CWA 320 (b)(5)

Characterization

A characterization report will be produced which describes the status and trends of the estuary's water quality, natural resources and uses. It will also define the priority problems of the estuary, including potential and probable causes, as well as environmental quality goals and objectives.

Identification of existing and emergent problems is currently underway through an interest-based planning method, which involves the entire community of "stakeholders." This interest-based approach is currently being employed at Morro Bay Local Policy and Watershed Committee meetings, work group meetings, and in specialized public focus sessions.

Although data are available on problems confronting the bay, several critical data gaps still exist. A successful characterization can not be developed without addressing these gaps. Detailed studies on bay bathymetry and tidal circulation and stream flow and sediment loading are needed to more fully characterize the flushing capability of the estuary and to understand the fresh water needs of the streams and estuary. Also, modeling of pollutant loading, particularly sediment and nutrients, will help target pollutant sources and potential solutions. Although considerable information is available on nutrient levels in creeks, very little exists for the bay itself. The integration of existing monitoring programs with new programs needed to fill in the gaps will provide a cost-effective approach to problem solving. This report will be included as an appendix to the Management Plan, and a summary included in the Plan.

CWA 320 (b)(1), CWA 320 (b)(2), CWA 320 (b)(3)

Action Plans

The Management Plan will include a series of action plans directed at solving priority problems. Each action plan will:

- 1) State the priority problem, identifying the probable causes and sources;
- 2) State goals related to the priority problem and objectives to attain the goals;
- 3) Identify and prioritize new and existing management activities for implementation; and
- 4) Provide a description of performance evaluation techniques associated with the implementation plan.

Each action plan will include information on costs, financing mechanisms, and commitments by agencies and organizations. Each action plan will include an implementation strategy and a description of monitoring and data management strategies related to the suggested action. The goal of the implementation strategy is to carry out the recommendations made in the Management Plan. The action plans will be developed with the full participation of the community through the work group process.

State and local agencies, and organizations participating in this effort, will make positive efforts to take early action by responding to problems within their realms of interest as these problems are identified. The Local Policy and Watershed committees recognize the need for action during the development phase of the Management Plan. The NEP will provide new and more comprehensive opportunities for cooperative early action.

CWA 320 (b)(4), CWA 320 (b)(5), CWA 320 (b)(6)

Financing and Implementation Strategies

The financing strategy will describe existing and potential sources of funding for the program. While each Action Plan will contain a financing strategy which deals with specific recommendations and projects, the overall financing strategy will deal with financial matters involved in sustaining the Program itself. Similarly, an overall program implementation strategy for the long term support of the plan will be developed which describes the organizational structure and other aspects of implementation. Action plans will contain implementation strategies specific to the nature of the action.

Monitoring and Assessment

A detailed environmental monitoring program plan will be provided in the form of a technical appendix to the Management Plan. This plan will use existing environmental monitoring programs as a basis for the development of a comprehensive program, which will monitor trends in priority pollutants in the bay and watershed. Recommended environmental monitoring measures developed within action plans will also be incorporated in this monitoring plan. A summary of this plan will be included in the Management Plan. This monitoring plan will define objectives, performance criteria, sampling criteria, and the parties who will perform the monitoring. The plan will specify sampling parameters, locations, frequencies, durations, and collection methods. A quality assurance document will be developed which describes data collection standards, transfer, handling, and storage procedure, analytic procedures, data storage and retrieval procedures, and identifies the responsible parties and the role they fill in implementing the monitoring plan. The MBNEP monitoring program, including a volunteer component, will be integrated with other existing monitoring programs into a unified data collection, management, and analysis system.

CWA 320 (b)(1), CWA 320 (b)(2), CWA 320 (b)(3), CWA 320 (b)(6) 320(d)

Federal Consistency Report

A federal consistency report will be developed and made available in the form of a technical appendix to the Management Plan. The consistency report will include the following:

An inventory of federal programs which are associated with priority problems in the estuary;
An evaluation of pertinent federal programs and any inconsistencies relative to Management Plan goals, and remedies to resolve these inconsistencies;

A review strategy which outlines how the management conference will review federal financial assistance programs and development projects to address consistency issues and to meet the requirement of CWA Section 320(b)(7) and Executive Order 12372.

CWA 320 (b)(5), CWA 320 (b)(7)

3.3 TECHNICAL ACTIVITIES

The Governor's Nomination of Morro Bay to the National Estuary Program included funding for technical studies and modeling. These studies are described briefly below.

Bay Bathymetry and Tidal Circulation Study

The integration of existing bathymetric and fresh water inflow data with a new hydrodynamic model of the internal circulation patterns within the bay is needed to provide an analytic tool for assessment of pollutant distribution and dredging impacts. Such a model can provide information on the flushing capacity of the bay. Potential hydromodifications for the purpose of improving the bay's flushing capability can be evaluated as well.

Examples of possible Action Plans that may apply the information derived from this technical study may include recommendations for alterations in dredging patterns and practices in the bay and stream channels. This study will provide support for characterization of pollutant distribution and loading and source identification.

The MBNEP will utilize the results of the tidal circulation study, combined with existing data, to develop and support Action Plans related to issues such as dredging and pollutant transport. The Plan will contain a summary of the results and recommendations developed during this study. The details of the study will be presented in a technical appendix.

CWA 320 (b)(2), CWA 320 (b)(3)

Stream Flow and Sediment Loading Study

Geophysical and habitat assessment and modeling of stream corridors is needed. This information will enable the MBNEP to develop action plans related both to instream flow and estuarine freshwater needs and anadromous fish habitat restoration.

The integration of existing riparian habitat information and other stream data with new data from these studies will assist in the development of a detailed characterization of stream flow and related impacts. These studies will also provide background information for the ongoing and expanded water quality and quantity monitoring programs.

The instream flow data will be integrated with pollutant load data (i.e., sediment, nitrates) to develop a total maximum daily load analysis for the watershed. Flow modeling will also be used in combination with fisheries data to support a common ground for interdisciplinary decision-making regarding anadromous fisheries issues.

The MBNEP will utilize the results of the stream evaluation studies to support Management Plan actions related to water resource management and pollutant transport issues. The Plan will contain a summary of the results and recommendations of the studies. Study details will be presented in a technical appendix.

CWA 320 (b)(2), CWA 320 (b)(3)

Bay Nutrient Study

There are a number of sources of nutrients and bacteria entering the bay, including wastewater treatment plant facilities, onsite wastewater treatment systems, urban runoff, agricultural runoff, and native wildlife. Morro Bay has had a rich eelgrass resource that supports a variety of bird, invertebrate, and fish resources, and this resource now appears to be diminishing. Eelgrass is vulnerable to excess nutrient inputs. Macroalgae blooms have become more prevalent in recent years and this may be an indicator of increasing nutrient inputs. The California Department of Health Services has downgraded portions of the National Shellfish Sanitation Program growing area classification to Restricted due to an increasing trend in bacteria levels in the bay. Additional information is needed to more fully understand the impact of nutrients and bacteria on the bay and its resources, and to develop management objectives to protect these resources.

The MBNEP will conduct a nutrient and bacteria analysis within the bay, examining potential sources and estimating pollutant loadings from these sources. Study results, combined with existing data, will assist in the development of recommendations in support of Action Plans. These may include nutrient management measures for stormwater discharge or other sources, and effluent treatment level recommendations. The Plan will contain a summary of the results and recommendations of this study. The study details will be presented in a technical appendix.

CWA 320 (b)(1), CWA 320 (b)(2), CWA 320 (b)(3)

Bay Habitat Characterization and Assessment Study

Among the various research needs identified for years is that of characterizing the various habitats of the bay and associated wetlands. In order to understand the impacts of water pollution and habitat loss, and to assess change in habitat quality and extent over time, it is necessary first to characterize these habitats. This study is intended to provide mapping and quality assessment of the various habitats in and immediately surrounding the bay.

CWA 320 (b)(2), CWA 320 (b)(3)

Data acquired through these studies, the Morro Bay National Monitoring Program, the Regional Water Quality Control Board Nonpoint Source Program, the NEP volunteer monitoring program, and other sources will be used in the development, prioritization, and evaluation of action plans. Locally developed geographic information systems will provide a geophysically-referenced common ground as a basis for decision making. The MBNEP technical team has collected and is currently evaluating pollutant loading and transport modeling software for application during the course of action plan development. The Plan will contain a summary of this study. The study details will be presented in a technical appendix.

CWA 320 (b)(1), CWA 320 (b)(2), CWA 320 (b)(3)

Student Intern Program

This program may be established, as funding permits, to facilitate university-level research activities, and will focus its resources on issues identified during Plan development. A competitive process will be used to select student participants. The intent of this program is to provide financial support for student work on priority research identified through work of the Research Needs work group, and through development of the characterization document and action plans. The planning effort will benefit because of the cost effectiveness of student participation. Students will benefit through access to planning staff, scientists and technical resources of the National Estuary Program.

CWA 320 (b)(1), CWA 320 (b)(2), CWA 320 (b)(3)

4.0 Program Management

4.1 BACKGROUND

The Regional EPA administrator approved the original Morro Bay Management Conference Agreement on April 10, 1996. However, the original structure and organization of that Conference did not adequately represent the community at large. Furthermore, roles and responsibilities of the various committees, task leaders, and other staff were not clearly defined in the original Management Conference Agreement. Therefore, a steering committee was formed to identify a process for revising the MCA, creating a new organizational structure, and defining the responsibilities of the participants. The section below summarizes these roles and responsibilities. The revised structure is shown in Figure 1.

4.2 ORGANIZATIONAL ROLES AND RESPONSIBILITIES

Program Director

Responsibilities

The Program Director has Chief staff responsibilities for planning, administering, coordinating, managing, and directing the Morro Bay National Estuary Program which will ultimately result in the development of a Comprehensive Conservation Management Plan (CCMP).

The Program Director will:

- 1) Coordinate contractual, budgetary, audit and personnel aspects of the project. This includes selection, direction and supervision of staff;
- 2) Support the Local Policy Committee (LPC), Watershed Committee (WC), Bay Foundation, advisory committees, and Task Force meetings;
- 3) Develop, coordinate, manage, and provide quality control of contracted technical bay and watershed studies; such management to include analysis and evaluation of technical and scientific reports; preparation and/or editing of reports and documents;
- 4) Develop and oversee a data management system;
- 5) Coordinate public participation and education initiatives; providing liaison with the media, public, academic and other interested parties;
- 6) Coordinate the project with other relevant local, state and federal projects;
- 7) Work closely with the WC to ensure that staff documents reflect comments from the WC;
- 8) Provide lead on developing required products (CCMP, Base Program Analysis, Technical Characterization, and Quality Assurance Project Plan (QAPP);

- 9) Write grants and explore possible joint efforts with other organizations concerning research and implementation; and
- 10) Write checks and make credit card purchases as determined by Bay Foundation policy. Limits will be set by the Bay Foundation.

Chain of Command

The Program Director:

- 1) Reports to and is accountable to the Morro Bay National Estuary Program Local Policy Committee, but is employed by the grant recipient, the Bay Foundation;
- 2) Works with Watershed Committee members and solicits committee input in development of work plans and other documents; and
- 3) Supervises staff.

Local Policy Committee

General Responsibilities

The Local Policy Committee has been charged with (1) executive decision-making; (2) approving final work plans, budgets, priorities, contracts, and the final Comprehensive Conservation Management Plan; (3) directing the day-to-day work of the Morro Bay National Estuary program director; and (4) setting policy for the Management Conference. In carrying out the requirements of the program, the LPC will seek to include the maximum amount of interests in developing the plan, and incorporate the needs and ideas of the entire community of users and beneficiaries of the economic, environmental and social assets of the estuary and associated habitats. The LPC will seek to utilize local talents and decision-making to the greatest extent possible, and will give preference to local governments, local landowners, local organizations, and local citizens in the selection of committee members, contracts, and program priorities. All members of the LPC will be of equal status.

Specifically Local Policy Committee members will:

- 1) Identify roles, responsibilities, work priorities, expectations, schedules, and requirements for program director;
- 2) Establish a clear description of process, documentation requirements, arbitration procedures to promote resolution of issues;

- 3) Provide clear lines of authority, expectations, reporting, and evaluation procedures for program director including but not limited to: time and attendance, travel procedures, and performance standards; and
- 4) Restructure or revise this MCA at any time if the organization is not productive.

Chain of Command

The Local Policy Committee:

- 1) Is a decision-making body;
- 2) Supervises the NEP Program Director;
- 3) Provides checks and balances between groups by having the following representatives: one agricultural property owner; two Watershed Committee members; one Mayor of Morro Bay; one San Luis Obispo County District 2 Supervisor; one Friends of the Estuary member; one Bay Foundation member; one RWQCB member, and one USEPA member; and
- 4) Defines work products in conjunction with the program, and the program director then directs staff.

Watershed Committee

General Responsibilities

The Watershed Committee is charged as an advisory group to the program director and LPC to provide broad representation and inclusivity. The WC will contribute to and review action and work plan development, draft documents, and make recommendations concerning various issues as necessary to keep the MBNEP on schedule and to ensure that the final CCMP is supported by its membership. The WC establishes and directs subcommittees and/or advisory groups to carry out its mission. Each member represents and communicates their interest (e.g., landowner or governmental agency) with regard to the work products developed by the MBNEP as well as to the other members of the committee. WC representatives will communicate back to their constituents relevant information regarding the status of MBNEP activities and products. WC representatives will evaluate and make recommendations concerning program priorities and actively participate in all aspects of the development of the CCMP and other activities conducted by the MBNEP. WC representatives will also review and make recommendations for the draft and final plan that will be sent to the LPC.

Watershed Committee members will:

- 1) Provide content to staff for the draft CCMP, utilizing the available tools such as the State Plan, Technical Studies, Base Program Analysis, and Technical Characterization Report;
- 2) Review and provide input and suggestions to the program director on documents;
- 3) Develop an internal structure, (e.g., form subcommittees based on work products or past advisory committees, define Technical Committees' roles and responsibilities (Technical Committees include Citizen's Advisory Groups, etc.) ensuring broad representation of diverse views and inclusivity in WC discussions;
- 4) Review State Action Plan for gaps, overlap, means for implementation and funding;
- 5) Identify measures of success, i.e., environmental indicators for long-term assessment of improvements/impacts;
- 6) Provide input to make the process/products represent their interests; make recommendations and give feedback to Program Director and LPC;
- 7) Report and raise issues to the LPC through representatives;
- 8) Work on issues, reach consensus, and bring items forward for LPC.

Chain of Command

The Watershed Committee:

- 1) Is represented on LPC by two members who will participate in all LPC matters; and
- 2) Works with and requests assistance from the Program Director.

Watershed Committee Technical Advisory Committees (TAC)

General Responsibilities

Advisory committees will be formed or "reconstituted" at the direction of the WC or at the request of the program director. Staff will work with the TAC and report to the program director and WC. The Watershed Committee will designate a member of the Watershed Committee to serve on each Technical Committee for the purposes of reporting to the Watershed Committee concerning the activities and direction of the Technical Committees.

The Technical Advisory Committees will:

- 1) Serve the Watershed Committee as advisory groups to further develop process, issues, actions, etc. by joining interested parties and experts to bring the program forward in meeting work plan outputs; and
- 2) Additional responsibilities to be developed by the Watershed Committee.

Chain of Command

The Watershed Committee Technical Advisory Committees report to the Watershed Committee.

Bay Foundation/ Central Coast Regional Water Quality Control Board

General Responsibilities

The Bay Foundation and the RWQCB will serve as the bursars to the Morro Bay National Estuary Program and exercise this function as members of the LPC. They will provide resources for staffing, program office facilities, and funding for scientific and technical programs and contracts. They also have the responsibility for administering a variety of research and educational projects devoted to the bay and its watershed.

Bay Foundation and Regional Board representatives will:

- 1) Provide fiduciary and legal responsibility to EPA and the MBNEP to ensure that the annual budget is not exceeded and that money is spent within the guidelines of the funding agent;
- 2) Provide contracting and personnel procedures to procure personnel, contracts, supplies and equipment for use by the MBNEP;
- 3) Provide sound personnel and contracting procedures, policies, etc. to discourage illegal activity and promote smooth program operations;
- 4) Oversee Requests-for-Proposals (RFP's), soliciting input from staff, the program director, TACs and the WC. The Foundation will develop selection recommendations for LPC;
- 5) Retain decision-making process in regards to the audit needs of the NEP funds;
- ✓ 6) Have the authority to retain a employee/employer relationship with MBNEP staff for purposes other than the MBNEP (using other funds) should the LPC decide to end the working relationship with BF/RWQCB-funded MBNEP staff;
- 7) Enter into contracts, upon approval of the LPC;
- 8) Oversees RFP's for technical studies, in concert with staff; and

- 9) Provides semi-annual financial reports to LPC.

Chain of Command

Represented on the LPC by 1 member from each who will participate in all LPC matters.

US Environmental Protection Agency

General Responsibilities

The United States Environmental Protection Agency is the federal agency authorized by Congress to carry out the National Estuary Program as described in Section 320 of the Clean Water Act. This authority is delegated to EPA Region IX, which is located in San Francisco. EPA authority extends to convening a Management Conference for the purposes of assessing and characterizing the estuary, understanding pollutant loads, developing a comprehensive conservation management plan with corrective actions and schedules to address pollution, and funding to support these activities.

USEPA staff will:

- 1) Ensure fiduciary and legal accountability to Congress regarding the expenditure of funds;
- 2) Ensure programmatic accountability to Congress regarding accomplishment of program goals;
- 3) Ensure adequate and balanced representation accountability to the local community in developing the CCMP;
- 4) Provide program guidance and national connection for the Management Conference and local community;
- 5) Seek funding opportunities for MBNEP within EPA; and
- 6) Report to Congress and other interested parties on program accomplishments, progress, setbacks.

Chain of Command

The USEPA is:

- 1) Represented on the LPC by one member who will participate in all LPC matters;
- 2) A sponsoring federal agency, authorized by Congress to make final Clean Water Act funding decisions.

Additional details regarding the operating parameters of the Local Policy Committee, the Watershed Committee, and other parties to this Conference are contained in the Appended bylaws.

This document is not intended to infringe on the statutory or regulatory rights and responsibilities of any aforementioned agencies or organizations.

4.3 MORRO BAY STATE ESTUARY PLAN APPROVAL PROCESS

The State Estuary Plan, mandated by AB640, requires its own approval steps. These are included for reference below:

City of Morro Bay State Estuary Plan Review and Adoption

The AB640 State Estuary Management Plan is subject to approval by the Morro Bay City Council prior to delivery to the State Legislature.

County of San Luis Obispo State Estuary Plan Review and Adoption

The AB640 State Estuary Management Plan is subject to approval by the San Luis Obispo County Board of Supervisors prior to delivery to the State Legislature.

State Legislature Submittal

The AB640 State Estuary Management Plan calls for submittal to the California State Legislature by October 1997.

4.4 NATIONAL ESTUARY PROGRAM STAFFING

Program Director

The Program Director will provide overall program management, administration, and supervision of Morro Bay National Estuary program staff, and will ensure timely completion and quality of all required program documents. The Program Director will establish a framework for long-term implementation of the Management Plan and will initiate the process. The Program Director will establish and maintain necessary relationships with agencies, policy makers, and other interests within the watershed.

The Program Director, as an employee of the Bay Foundation, reports to the Local Policy Committee, and provides assistance to the Watershed committee and other Technical and Advisory Committees.

Scientific Coordinator

The Scientific Coordinator will provide overall program scientific management and scientific oversight of contract development in support of program technical activities. The Coordinator will manage the implementation of the Program's technical studies contracts, develop and coordinate implementation of the Morro Bay Integrated Monitoring Program (which is an effort to integrate existing monitoring efforts and volunteer projects to address priority problems), and implement the bacteria study. The Scientific Coordinator will work with the work groups, technical advisory committees, and the Program Director to prioritize and begin implementation of identified research projects. The Coordinator will develop and/or review scientific components of required NEP documents, and manage the Student Intern Program, as funding is made available.

The Scientific Coordinator will provide the lead on collecting and managing monitoring data, developing the quality assurance document, developing and implementing the volunteer monitoring program, and coordinating with other existing monitoring programs.

Supervisor: Program Director

Characterization/Public Participation Coordinator. The Characterization/Public Participation Coordinator will work with the Scientific Coordinator and Program Director to prepare the Characterization for the CCMP and ensure implementation of the Public Participation Strategy. The coordinator will review and summarize past accomplishments of the Program relating to public participation, and revise the Public Participation Strategy if needed given the reorganization of the Program. The Coordinator will provide lead on development of Action Plans, and, working with the Program Director, will coordinate the efforts of the Morro Bay Watershed Committee and its advisory committees, and will assist chairs and committee members in establishing and tracking the progress of committees. The Coordinator will assist the Chair in setting agendas for the Watershed Committee, will provide meeting facilitation skills at advisory committee and other public meetings, and will facilitate dialog between work groups as needed. The Public Participation Coordinator will generate monthly calendars of meetings and will provide coordination between the Public Outreach work group and the rest of the program. This Coordinator will manage the public outreach staff activities, and will give presentations to groups with interests in aspects of the plan.

Supervisor: Program Director

Media Relations, Newsletter

The Program Director will be the NEP's primary media contact. The Program Director, with staff support, will arrange for radio and television coverage as needed; provide briefing material and press advisories for radio and television broadcasts; solicit individuals for interviews as needed for media coverage; and plan for national media coverage. Staff will publish standard press releases as necessary in four local newspapers. A publications contractor will develop and publish the Program's newsletter

"Turning the Tide." Additional media coordination and development of stories and columns, including the "Turning the Tide" newspaper column, will be contracted for as needed, as determined by the Program Director.

Supervisor: Program Director

Office Manager/Administrative Assistant

The NEP Office Manager will provide the initial public contact for visitors and others seeking information about the NEP, directing calls to staff as appropriate. The Office Manager will be the primary public contact during NEP office hours of operation. The Office Manager will maintain the NEP general files and accounting records, and perform other duties as specified by the Program Director. Additional administrative assistance may be provided as needed, as determined by the Program Director, and as approved by the Local Policy Committee.

Supervisor: Program Director

State Agency Liaison

The State liaison will provide lead on the base program analysis and federal consistency report, as well as program liaison with Central Coast Regional Water Quality Control Board and other State agencies.

Supervisor: Program Director

County and City Agency Liaison

NEP staff will coordinate program activities with San Luis Obispo County and City of Morro Bay staff.

4.5 WORK PLAN

The first and second year work plans describe annual activities to be undertaken by the MBNEP. The work plans include task descriptions and products to be completed. The overall schedule for completion of the CCMP is shown in Figure 2. Key milestones are:

- Final Draft CCMP released for public review - July, 1998
- Approval Draft CCMP for agency review and hearings - December, 1998
- Final CCMP - July, 1999

One of the tasks during the final year of Management Plan development is to prepare a work plan defining the first year of post-approval activities. This work plan will be submitted concurrently with the final Management Plan and will identify tasks necessary to support project oversight during implementation of the Management Plan. The final year work plan will include a discussion of the activities necessary to: (1) close out any remaining technical and development projects; (2) complete any remaining public reviews; (3) monitor and oversee Management Plan implementation; (4) conduct consistency reviews; (5) prepare biennial reports on the success of actions taken as a result of the plan; and (5) identify State and local support to maintain project oversight during implementation of the

Management Plan.

4.6 NEP AND RELATED PROGRAM OFFICES

Primary NEP Project Office - The project office has been established near the bay in Los Osos and will be maintained using NEP funds:

MBNEP Headquarters

1400 Third Street

Los Osos, CA 93402

(805) 528-7746 or 528-8126; fax 528-3450

Office hours: 8 a.m. to 5 p.m., Monday through Friday

This office will serve as the headquarters location for the program. It will provide primary working space for Bay Foundation, NEP, and NEP volunteer staff working on the project. It will provide the program with a distinct image not associated with any regulatory agency or specific level of government.

The majority of the equipment and furnishings have been provided as a part of the non-federal match by the Central Coast Regional Water Quality Control Board, The Bay Foundation of Morro Bay, and Pacific Gas and Electric Company.

RWQCB Office - The State has also established a NEP project office within its existing Morro Bay Project Office:

Central Coast Regional Water Quality Control Board

81 Higuera Street, Suite 200

San Luis Obispo, CA 93401.

(805) 549-3336, (805) 543-0397 (fax)

Office hours: 8 a.m. to 5 p.m., Monday through Friday

This office will serve as the primary location for certain operations, including bulk mailings, photocopying, and other office support activities. It is also the primary work place for RWQCB staff working on the NEP.

Various RWQCB employees are involved in applying a watershed approach to Regional Board activities within the Morro Bay watershed. Close contact between MBNEP staff and RWQCB staff involved in permitting and regulatory operations facilitates a coordinated approach to dealing with known and emerging water quality and habitat problems.

Office equipment, furnishings, and facilities are being provided by the Central Coast Regional Water Quality Control Board as a part of the non-federal match.

Bay Foundation of Morro Bay

PO Box 1020

Morro Bay, CA 93443

Coastal San Luis Resource Conservation District

45 Main Street, Suite B-1
Morro Bay, CA 93442

United States Environmental Protection Agency, Region IX

75 Hawthorne Street
San Francisco, CA 94105

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CLEAN WATER ACT

CLEAN WATER ACT, SECTION 320

The National Estuary Program was established by Congress in 1987 by amendments to the Clean Water Act.

SECTION 320 NATIONAL ESTUARY PROGRAM

A. MANAGEMENT CONFERENCE—

1. **NOMINATION OF ESTUARIES**—The Governor of any State may nominate to the Administrator an estuary lying in whole or in part within the State as an estuary of national significance and request a management conference to develop a comprehensive management plan for the estuary. The nomination shall document the need for the conference, the likelihood of success, and information relating to the factors in paragraph (2).

2. **CONVENING OF CONFERENCE**—

A. **IN GENERAL**—In any case where the Administrator determines, on his own initiative or upon nomination of a State under paragraph (1), that the attainment or maintenance of that water quality in an estuary which assures protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on water, requires that control of point and nonpoint sources of pollution to supplement existing controls of pollution in more than one State, the Administrator shall select such estuary and convene a management conference.

B. **PRIORITY CONSIDERATION**—The Administrator shall give priority consideration under this section to Long Island Sound, New York and Connecticut; Narragansett Bay, Rhode Island; Buzzards Bay, Massachusetts; Puget Sound, Washington; New York-New Jersey Harbor, New York and New Jersey; Delaware Bay, Delaware and New Jersey; Delaware Inland Bays, Delaware; Albemarle Sound, North Carolina; Sarasota Bay, Florida; San Francisco Bay, California; and Galveston Bay, Texas.

3. **BOUNDARY DISPUTE EXCEPTION**—In any case in which a boundary between two states passes through an estuary and such boundary is disputed and is the subject of an action in any court, the Administrator shall not convene a management conference with respect to such estuary before a final adjudication has been made of such dispute.

b. **PURPOSES OF CONFERENCE**—The purposes of any management conference convened with respect to an estuary under this subsection shall be to—

1. Assess trends in water quality, natural resources, and uses of the estuary;
2. Collect, characterize, and assess data on toxics, nutrients, and natural resources within the estuarine zone to identify the causes of environmental problems;
3. Develop the relationship between the in-place loads and point and nonpoint loadings of pollutants to the estuarine zone and the potential uses of the zone, water quality, and natural resources;
4. Develop a comprehensive conservation and management plan that recommends priority corrective actions and compliance schedules addressing point and nonpoint sources of pollution to restore and maintain the chemical, physical, and biological integrity of the estuary, including restoration and maintenance of water quality, a balanced indigenous population of shellfish, fish, and wildlife, and recreational activities, in the estuary, and assure that the designated uses of the estuary are protected;
5. Develop plans for the coordinated implementation of the plan by the states as well as federal and local agencies participating in the conference;
6. Monitor the effectiveness of actions taken pursuant to the plan; and
7. Review all Federal financial assistance programs and Federal development projects in accordance with the requirements of Executive Order 1372, as in effect on September 17, 1983, to determine whether such

assistance program or project would be consistent with and further the purposes or objectives of the plan prepared under this section.

For purposes of paragraph (7), such programs and projects shall not be limited to the assistance programs and development projects subject to Executive Order 12372, but may include any programs listed in the most recent Catalog of Federal Domestic Assistance which may have an effect on the purposes and objectives of the plan developed under this section.

c. MEMBERS OF CONFERENCE—The members of a management conference convened under this section shall include, at a minimum, the Administrator and representatives of-

1. Each State and foreign nation located in whole or in part in the estuarine zone of the estuary for which the conference is convened;
2. International, interstate, or regional agencies or entities having jurisdiction over all or a significant part of the estuary;
3. Each interested Federal agency, as determined appropriate by the Administrator;
4. Local governments having jurisdiction over any land or water within the estuarine zone, as determined appropriate by the Administrator; and
5. Affected industries, public and private educational institutions, and the general public, as determined appropriate by the Administrator.

d. UTILIZATION OF EXISTING DATA—In developing a conservation and management plan under this section, the management conference shall survey and utilize existing reports, data, and studies relating to the estuary that have been developed by or made available to Federal, Interstate, State, and local agencies.

e. PERIOD OF CONFERENCE—A management conference convened under this section shall be convened for a period not to exceed 5 years. Such conference may be extended by the Administrator, and if terminated after the initial period, may be reconvened by the Administrator at any time thereafter, as may be necessary to meet the requirements of this section.

f. APPROVAL AND IMPLEMENTATION PLANS-

1. APPROVAL—Not later than 120 days after the completion of a conservation and management plan and after providing for public review and comment, the Administrator shall approve such plan if the plan meets the requirements of this section and the affected Governor or Governors concur.

2. IMPLEMENTATION—Upon approval of a conservation and management plan under this section, such plan shall be implemented. Funds authorized to be appropriated under titles II and VI and Section 319 of these Act may be used in accordance with the applicable requirements of this Act to assist states with the implementation of such plan.

g. GRANTS-

1. RECIPIENTS—The Administrator is authorized to make grants to State, interstate, and regional water pollution control agencies and entities, State coastal zone management agencies, interstate agencies, and other public or nonprofit private agencies, institutions, organizations, and individuals.

2. PURPOSES—Grants under this subsection shall be made to pay for assisting research, surveys, studies, and modeling and other technical work necessary for the development of a conservation and management plan under this section.

3. **FEDERAL SHARE**—The amount of grants to any person (including a State, interstate, or regional agency or entity) under this subsection for a fiscal year shall not exceed 75 percent of the costs of such research, survey, studies, and work and shall be made on condition the non-Federal share of such costs are provided from non-Federal sources.

h. **GRANT REPORTING**—Any person (including a State, interstate, or regional agency or entity) that receives a grant under subsection (g) shall report to the Administrator not later than 18 months after receipt of such grant and biennially thereafter on the progress being made under this section.

i. **AUTHORIZATION OF APPROPRIATIONS**—There are authorized to be appropriated to the Administrator not to exceed \$12,000,000 per fiscal year for each of fiscal years 1987, 1988, 1989, 1990, and 1991 for-

1. Expenses related to the administration of management conferences under this section, not to exceed 10 percent of the amount appropriated under this subsection;
2. Making grants under subsection (g); and
3. Monitoring the implementation of a conservation and management plan by the management conference or by the Administrator, in any case in which the conference has been terminated.

The Administrator shall provide up to \$5,000,000 per fiscal year of the sums authorized to be appropriated under this subsection to the Administrator or the National Oceanic and Atmospheric Administration to carry out subsection (j).

j. **RESEARCH-**

1. **PROGRAMS**—In order to determine the need to convene a management conference under this section or at the request of such a management conference, the Administrator shall coordinate and implement, through the National Marine Pollution Program Office and the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration, as appropriate, for one or more estuarine zones-

- A. A long-term program of trend assessment monitoring measuring variations in pollutant concentrations, marine ecology, and other physical or biological environmental parameters which may affect estuarine zones, to provide the Administrator the capacity to determine the potential and actual effects of alternative management strategies and measures;
- B. A program of ecosystem assessment assisting in the development of (i) baseline studies which determine the state of estuarine zones and the effects of natural and anthropogenic changes, and (ii) predictive models capable of translating information on specific discharges or general pollutant loadings within estuarine zones into a set of probable effects on such zones;
- C. A comprehensive water quality sampling program for the continuous monitoring of nutrients, chlorine, acid precipitation dissolved oxygen, and potentially toxic pollutants (including organic chemicals and metals) in estuarine zones, after consultation with interested State, local, interstate, or international agencies and review and analysis of all environmental sampling data presently collected from estuarine zones; and
- D. A program of research to identify the movements of nutrients, sediments and pollutants through estuarine zones and the impact of nutrients, sediments, and pollutants on water quality, the ecosystem, and designated or potential uses of the estuarine zones.

k. **DEFINITIONS**—For purposes of this section, the terms "estuary" and "estuarine zone" have the meanings such terms have in section 104(n)(4) of this Act, except that the term "estuarine zone" shall also include associated aquatic ecosystems and those portions of tributaries draining into the estuary up to the historic height of migration of anadromous fish or the historic head of tidal influence, whichever is higher.

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BASE PROGRAMS ANALYSIS

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**BASE PROGRAMS ANALYSIS
FOR THE
MORRO BAY NATIONAL ESTUARY PROGRAM
COMPREHENSIVE CONSERVATION AND
MANAGEMENT PLAN**

**VOLUME I: INSTITUTIONAL INVENTORY OF
PROGRAMS**

Prepared by

**Lisa Horowitz McCann
Central Coast Regional Water Quality Control Board**

**Cy R. Oggins
California Coastal Commission**

and

**Audrey Blumeneau
California Coastal Commission**

for the

Morro Bay National Estuary Program

**Melissa Mooney
Program Director**

FINAL

DRAFT

DECEMBER 1998

**BASE PROGRAMS ANALYSIS
FOR THE
MORRO BAY NATIONAL ESTUARY PROGRAM
COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN
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DECEMBER 1998**

Acknowledgments

Preparation of this document originated soon after the Morro Bay Estuary was accepted into the US Environmental Protection Agency's National Estuary Program (NEP). Staff of the Central Coast Regional Water Quality Control Board (Regional Board) was assigned to prepare the Base Programs Analysis for the Morro Bay NEP. At that time, the former Program Director, Dave Paradies, and the former Scientific Director, Karen Worcester (an Environmental Specialist with the Regional Board), provided direction and support. As the NEP developed, these two directors saw an opportunity to partner with the California Coastal Commission, as that agency's staff was actively involved with encouraging implementation of nonpoint source pollution management measures in coastal areas (through their participation in the State's process of upgrading the California Nonpoint Source Management Program). Tami Grove, a Deputy Director of the California Coastal Commission, shared this view. She and Vern Jones, Supervising Environmental Specialist with the Regional Board, approved an interagency agreement between the State Water Resources Control Board and the California Coastal Commission that brought the co-authors of the report together. Along the way, Katie Kropp, Environmental Specialist with the Regional Board and Technical Director for the National Estuary Program, provided information about the roles and interests of the various agencies and represented the views of the members of the general public participating in the Program. We also acknowledge the hard work and flexibility of the student assistants/interns who assisted us--Jonathan Civita and Jon Boland working for the Regional Board, and Michael Rasnick, working for the California Coastal Commission. Finally, this project could not have been completed without the input and feedback we received from representatives of the local, state and federal agencies included in the Institutional Inventory.

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1.0 INTRODUCTION

This document contains Volume I of the Base Programs Analysis for the Morro Bay National Estuary Program's Comprehensive Conservation and Management Plan. Volume I of the Base Programs Analysis includes the Institutional Inventory of Programs. The Institutional Inventory is the first step in the Base Programs Analysis. It includes descriptions of programs being implemented by several agencies to manage and protect the Morro Bay estuary and watershed.

Volume II of the Base Programs Analysis includes the Effectiveness Analysis of the Institutional Framework laid out in Volume I: Institutional Inventory of Programs.

1.1 THE PURPOSE OF THE BASE PROGRAMS ANALYSIS

The purpose of the Base Programs Analysis is to assist the Morro Bay National Estuary Program (NEP) in developing effective mechanisms for addressing priority problems and their causes.

Section 320 of the Clean Water Act established the National Estuary Program to identify nationally significant estuaries threatened by pollution, development, or overuse and to promote the preparation of comprehensive management plans to ensure their ecological integrity. Section 320 states that one purpose of National Estuary Programs is development of plans to coordinate implementation of the CCMP by local, state and federal agencies. The Base Programs Analysis is a process to facilitate this purpose.

The Base Programs Analysis offers decision-makers a clearer picture of the existing institutional "infrastructure" or framework of the estuary and watershed. It serves as a management characterization of the estuary and watershed through a process of:

- describing the framework of institutions and programs within which a CCMP will be implemented;
- assessing the effectiveness of that framework in managing and protecting the estuary's resources; and
- recommending, in conjunction with the technical characterization, issues to be addressed in the CCMP based on potential management enhancements or alternatives.

This Base Programs Analysis was developed by following the guidance in the document *National Estuary Program Guidance, Base Programs Analysis* (U.S EPA, 1993). Additionally, it was developed by considering the approach currently underway by State agencies to identify actions consistent with the Coastal Zone Act Reauthorization Amendments. Integration and coordination of local needs with this state process should result in more technical and financial support to implement the actions developed for the CCMP. The approach included the following:

- identification of issues and actions to be addressed in the CCMP based on the results of the effectiveness analysis;

- evaluation of applicable management measures from those included in the *Management Measure Review Document* (California Coastal Commission and State Water Resources Control Board, 1998) developed under authority of CZARA; and
- description of how recommended actions for the CCMP implement the applicable management measures.

1.2 THE PURPOSES AND GOALS OF THE MORRO BAY NEP

1.2.1 The purposes of the Morro Bay NEP

The Morro Bay NEP includes an emphasis on characterization and trend detection as set forth in several of its seven purposes and objectives:

- 1) Assess trends in the estuary's water quality, natural resources, and uses of the estuary;
- 2) Collect, characterize and assess data on toxics, nutrients, and natural resources within the estuarine zone to identify the causes of environmental problems;
- 3) Assess pollutant loadings in the Estuary and relate them to observed and potential changes in uses of the estuarine zone, water quality and natural resources;
- 4) Develop a comprehensive conservation and management plan that recommends priority corrective actions and implementation schedule addressing point and nonpoint sources of pollution to restore and maintain the chemical, physical, and biological integrity of the estuary, including restoration and maintenance of water quality, a balanced indigenous population of shellfish, fish, and wildlife, and recreational activities in the estuary, and assure that the designated uses of the estuary are protected.
- 5) Develop plans for the coordinated implementation of the plan by the states as well as federal and local agencies participating in the conference;
- 6) Monitor the effectiveness of actions taken pursuant to the Plan;
- 7) Ensure that federal assistance and development projects (per Executive Order 12372, September 17, 1983), are consistent with the Management Plan, meet the requirements of CWA Section 320(b)(7) and further the goals of the Plan.

1.2.2 The Goals of the Morro Bay NEP

In addition, the Morro Bay NEP has adopted its own goals. The goals outline the resources of the bay and watershed that the program strives to protect and enhance. In order to measure progress towards meeting these goals, appropriate monitoring programs must be developed and implemented.

- 1) Slow the process of bay sedimentation through implementation of management measures which address erosion and sediment transport;

- 2) Reestablish healthy steelhead trout habitat in Chorro and Los Osos creeks through measures including reduction of sediment loading in gravels, stabilization of riparian corridors, removal or mitigation of migration barriers, improvement of water quality, and restoration and maintenance of adequate fresh water flow.
- 3) Ensure that bay water remains of sufficient quality to support a viable commercial shellfish mariculture industry, safe recreational uses, healthy eelgrass beds, and thriving fish and shellfish populations.
- 4) Ensure the integrity of the broad diversity of natural habitats and associated native wildlife species in the bay and watershed.
- 5) Maintain watershed functional integrity through appropriate riparian corridor management, impervious surface management, fire management, and grazing management.
- 6) Protect social, economic, and environmental benefits provided by the bay and watershed through comprehensive resource management planning.
- 7) Promote public awareness and involvement in estuarine management issues through outreach, educational programs, and the use of volunteers in ongoing bay monitoring and other programs.

1.3 PRIORITY PROBLEMS

The following issues have been identified as priority problems in the bay and watershed:

- Sedimentation
- Increased Bacterial Concentrations
- Increased Nutrients
- Heavy Metals and Other Toxins
- Reduced Fresh Water flows
- Habitat Loss

Sedimentation - Erosion in the watershed and sedimentation in the estuary are the greatest threats to Morro Bay. If sediment deposition in the estuary continues at the present rate, the health of the estuary is in severe jeopardy. Under normal conditions, an estuary and lagoon such as Morro Bay, could have a life measured in thousands of years (USDA/SCS, 1989a). However, if there is no abatement of sediment deliveries to the estuary, its life expectancy is likely limited to approximately 300 years (Haltiner, 1988), with parts of the southern section of the bay disappearing much sooner. The economic and environmental impact of this loss would be severe.

Increased Bacterial Concentrations - Elevated levels of bacteria present a potential health threat to those who utilize the bay for recreational purposes and economic threats to those who depend upon the resources of the bay for their livelihood. Elevated levels of bacteria are an indication that other pollutants, such as pathogens and viruses, may be present.

Bacteria levels in Morro Bay have increased noticeably since 1993. The increased levels have already impacted local shellfish growing operations. Rising levels of bacteria could adversely impact recreational uses of the bay. These pollutants can have adverse effects on humans and many marine species who utilize the bay.

Increased Nutrients - Sediment and fertilizer runoff from agricultural land contains significant amounts of nitrogen and phosphorus as well as organic matter. Nutrients are also added by animal waste runoff into waterways. Other nutrient sources include the wastewater discharge at the California Men's Colony treatment plant and septic systems in Los Osos and Baywood Park. These increased nutrient additions to the creeks and estuary can result in increased algal growth and reduced levels of dissolved oxygen in the water. The reduced oxygen contents can adversely affect aquatic organisms, particularly fish. This problem may increase as grazing lands are converted to higher intensity agriculture and in sections of the watershed, to horse operations and residential parcels.

Heavy Metals and Other Toxins - Inactive mines in the upper watershed have resulted in high levels of heavy metals, particularly nickel and chromium, being found associated with sediments eroding from these areas. Mine tailings and dredging spoils have been used for years in the upper watershed as fill and as road surface material. Dust from this soil may present a risk for those frequently exposed to it, as nickel is a lung carcinogen. Neither nickel nor chromium have been detected in significant quantities in surface waters; they are found primarily in association with soil particles. Their presence in sediment could impact the health of benthic fauna.

The Los Osos Landfill in the Los Osos Creek watershed may be another source of pollutants. Until early 1988, the landfill was the waste dump for residential wastes, toxic materials including motor oil, pesticide containers, lubricants, and other domestic pollutants. Pollutant discharges from the landfill have not been found in surface water. However, recent studies (Engineering Science, 1987) show low level hydrocarbon contamination in two wells adjacent to the landfill. Erosion of contaminated sediment from the landfill could be a concern. For example, during major storms in 1983, portions of the buried trash were exposed and eroded by a tributary of Los Osos Creek. Monitoring of water continues in the estuary through the Bay Protection and Toxic Cleanup Program (State Water Resources Control Board, 1988).

Other potential sources of heavy metals and other toxic pollutants include urban runoff discharges from the streets of the city of Morro Bay and the community of Los Osos, live-aboard boaters, boat painting and cleaning, and fuel docks.

Limited mussel data is available as an indicator of the bay's quality with respect to metals and organics. These data do, however, indicate that a potential for problems exists in Morro Bay. Efforts are needed to prevent one-time occurrences of toxic concentrations from becoming chronic problems.

Reduced Fresh Water Flows - The Morro Bay watershed is the source of drinking water for the communities of Los Osos (population about 16,000), the California Men's Colony (population about 6-8,000), and the city of Morro Bay (population about 10,000). At present, groundwater recharge of aquifers comes from the same sources that bring fresh water to the estuary, and increases in ground and surface water diversion directly affect the flow of creeks, the number of

flow days, and wildlife and botanic values associated with a fresh water supply. Fresh water flows from the two main creeks (a third was diverted from the bay in the 1940's) entering the bay have been reduced, and at times completely interrupted, through a combination of agricultural and urban uses.

Habitat Loss - Impacts to wetlands around the bay are closely linked to sedimentation. Seasonal runoff of fresh water produces measurable turbidity in mid-estuary zones (eelgrass), the duration of which is significantly longer in a simple flow system like a mature river (Phillips, 1984). Increased turbidity leads to decreased eelgrass growth, and reduces the depth range at which it will occur in the estuary. Desiccation through increased sediment accumulation is a major factor limiting the upper intertidal distribution of eelgrass. There appears to be no species succession in the eelgrass stage of the ecosystem. Eelgrass is the initial colonizer as well as the climax stage of development (Phillips, 1984).

The salt marsh and mudflats, while increasing in area at the estuary edge, does so at the expense of the eelgrass beds and deep water zones. With increased sedimentation, salt marsh habitat is being replaced in the upper delta by lower-salinity tolerant species. These include the introduced and extremely invasive Hoary Cress (*Cardaria draba*). Habitat quality at this expanding interface has been severely degraded (Cicero, 1991). Also invasive in riparian woodlands adjacent to the delta is German Ivy, again probably exacerbated by disturbed soils resulting from sedimentation.

1.4 SETTING

The Morro Bay estuary encompasses about 2,300 acres of mudflats, eelgrass beds, tidal wetlands, and open water. The project area encompasses the entire 48,000-acre Morro Bay watershed and estuary. The watershed is comprised of the Chorro Creek drainage (27,000 acres) and the Los Osos Creek drainage (17,000 acres).

Morro Bay supports the most significant wetland system on California's south-central coast. It also supports large tourism and commercial fishing industries, oyster farming and other business and recreational interests. The estuary is an essential link in the Pacific Flyway, providing one of the state's largest waterfowl habitats south of San Francisco. It supports a rich eelgrass resource and provides habitat for a number of endangered and/or threatened species, including, but not limited to: steelhead trout, California red-legged frog, tidewater goby, Morro Bay kangaroo rat, southern sea otter, and western snowy plover.

Major land uses in the watershed include rangeland (grassland), cropland, State and City parks and beaches, and urban development.

2.0 INSTITUTIONAL INVENTORY OF PROGRAMS

The purpose of the Institutional Inventory is to identify an array of available mechanisms to protect the estuary that include and go beyond existing institutional capabilities for implementing preventative and corrective actions. It aims to provide a clearer picture of the existing institutional framework. It also presents a tool to examine opportunities for environmental improvements.

The Institutional Inventory is the first step in the Base Programs Analysis. It includes descriptions of programs being implemented by several agencies to manage and protect the Morro Bay estuary and watershed. The programs are contained in "fact sheets" developed for each agency responsible for implementation of the programs. The collection of all the fact sheets for all the agencies with programs that contribute to management and protection of the estuary and watershed make up the Institutional Inventory. An example fact sheet is presented in Table 1 to illustrate what information is provided in the inventory and how the programs are organized in each fact sheet. An index of agency fact sheets included in the Institutional Inventory is presented in Table 2.

Each fact sheet includes a summary table that lists the key programs/activities. The table shows which priority problem is addressed by that program and which institutional framework category applies to the program. The institutional framework categories are described below. Following the summary table, each fact sheet has a description of the mission and authorities (Section I) and jurisdiction of each agency (Section II). Section III, Functions lists and describes the relevant programs and activities of the agency. The end of each fact sheet has a brief description of the administration and organization of each agency (Section IV) and the agency's address and phone number.

In Section III, Functions, the programs are grouped into institutional framework categories based on those recommended in the document *National Estuary Program Guidance, Base Programs Analysis* (US EPA, 1993). Grouping the programs into these categories facilitates understanding of the overall institutional framework created by all these programs. The categories are regulatory programs/activities, resource management programs/activities, finance mechanisms, and other non-regulatory programs/activities. "Other non-regulatory programs/activities" includes three additional types of programs. These are voluntary/incentive programs/activities, public education and technical assistance programs/activities, and planning programs/activities. These categories are defined as follows:

Regulatory Programs

This includes activities that are required by statutes and codes and those that are legally authorized. Typical activities are development and review for consistency with legal standards and requirements, issuance of orders or permits, ordinances, and enforcement. Activities implemented through regulatory mechanisms are often similar to activities implemented in other categories (e.g., erosion control structures). The distinction is that these activities are required by and enforceable with a legal authority. Examples that were considered include:

- development and enforcement of ordinances;
- water quality permitting, discharge prohibition and enforcement;

- standard setting/criteria development;
- wetlands protection/dredging/dumping restrictions; and
- coastal zone management plans

Resource Management Programs

This includes activities that are implemented for consistency with goals, policies and guidance. Typical activities are monitoring and assessment of resources, and development and implementation of resource enhancement and protection plans. Activities implemented through resource management programs may be similar to activities implemented in other categories (e.g. land acquisition). Examples that were considered include:

- agricultural area preservation
- fisheries habitat and wildlife protection
- nonpoint source pollution control

Finance Mechanisms

These include tools available to agencies to provide funding or financial resources to other agencies and/or landowners to pay for actions to manage and protect the estuary and watershed. Typical activities are those related to grants, low interest loans, cost-share programs, tax-incentives and land acquisition. Activities implemented through finance mechanisms may be similar to activities implemented in other categories (e.g. a grant to pay for erosion control).

Other Non-Regulatory Programs

Voluntary Initiatives/Incentive Programs

These include efforts to gain voluntary involvement by agencies and/or landowners. Typical activities are encouragement of interagency cooperation, raising public awareness, efforts to change individual behavior, and establishing partnerships and commitments to implement actions. Activities implemented through voluntary initiatives/incentive programs may be similar to activities implemented in other categories (e.g. volunteer monitoring).

Public Education and Technical Assistance

These include outreach and education efforts both to provide public awareness and specific assistance on technical issues (such as implementation of particular pollution control techniques). Typical activities are public presentations by agency BPA staff at workshops and meetings, training courses for agency BPA staff and landowners, creation and distribution of written materials, one-on-one site visits and interactions with landowners to resolve a specific problem. Activities implemented through public education and technical assistance programs may be similar to activities implemented in other categories (e.g. training on installation of erosion control structures).

Planning Efforts

These include planning activities related to growth management and land use. Typical activities are General Plan and other plan updates and adoption, and project review and approval. Activities implemented through planning efforts may be similar to activities implemented in other categories (e.g. require open space as a condition for approval of a project).

In the Institutional Inventory, the fact sheets are grouped by local, state, and federal agencies. There are 12 local agencies, 21 state agencies, and 10 federal agencies included. The agencies are identified as either primary or secondary agencies. Primary agencies are those with the most direct involvement in management or protection of the estuary (as related to the six priority problems of the NEP). There are nine primary local agencies, nine primary state agencies, and four primary federal agencies.

Base Programs Analysis staff consulted several sources of information in developing the Institutional Inventory. BPA staff reviewed existing documents developed for the nomination of the Morro Bay Estuary for the NEP and other documents developed by the program during the initial planning process. Additionally, BPA staff attended NEP workgroup and committee meetings (usually the Watershed Committee meetings). BPA staff reviewed the Internet websites, brochures, plans and regulations of the agencies considered for the Institutional Inventory. BPA staff also contacted representatives of the agencies considered for the Institutional Inventory. Comments on draft fact sheets were solicited from agencies through distribution of a questionnaire (see Volume II. Effectiveness Analysis).

TABLE 1
EXAMPLE FACT SHEET

Agency X						
Priority problems addressed (✓) *						Key programs/activities/etc.
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	(relating to the priority problems)
	✓			✓		• Program A (R)
✓		✓			✓	• Program B (R)
	✓			✓		• Program C (RM)
			✓	✓		• Program D (FM)
		✓	✓		✓	• Program E (NR)
✓	✓	✓				• Program F (NR) *
	✓			✓		• Program G (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The mission of Agency X is to protect and monitor the quality of water in the state.

II. JURISDICTION

Agency X has statewide jurisdiction regarding water quality.

III. FUNCTIONS (REGULATORY, RESOURCE MANAGEMENT, FINANCE MECHANISMS, OTHER NON-REGULATORY)

A. Regulatory Activities/Programs

- ♦ **Program A** — This program is authorized by Section 1 of Act H20. Agency X administers this program by ensuring that any disturbance to water quality is reported, documented and inspected if necessary. Agency X can require remediation alternatives to alleviate the water quality problem.
- ♦ **Program B** — Agency X issues permits for any construction activity occurring within a wetland or streambed.

B. Resource Management Activities/Programs

- ♦ **Program C** — Agency X works with landowners to develop plans to ensure water quality will be maintained on their property.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

TABLE 1
EXAMPLE FACT SHEET (CONTINUED)

C. Finance Mechanisms

- ♦ Program D -- Through the "Water Watcher" program, Agency X issues grant funds for water quality projects.

D. Other Non-Regulatory

- ♦ Program E — Creeks and streams are surveyed monthly by volunteers to obtain profiles and other important water flow data.
- ♦ Program F—This program is a nationwide environmental education program. Agency X provides educational opportunities to the public regarding water quality and protection.

IV. ADMINISTRATION

Agency X is administered by a Director who is appointed by the Governor. The Director has authority to direct most of the activities implemented by a staff of 500 technical employees. However, annual plans must be approved by the Governor. Agency X operates out of a headquarters office and five regional offices.

Agency X

1234 Water Way
Flood, CA 98036

Headquarters Addresses:

9876 River Run
Waterville, CA 83648

TABLE 2
INDEX OF AGENCY FACT SHEETS IN INSTITUTIONAL INVENTORY

SECTION 2.1	LOCAL/REGIONAL AGENCIES	
AGENCY NUMBER	AGENCY NAME	PAGE IN SECTION
Priority Agencies		
L1.	City of Morro Bay — Planning and Building Department	15
L2.	City of Morro Bay — Public Works Department	20
L3.	City of Morro Bay — Harbor Department	23
L4.	San Luis Obispo County — Planning and Building Department	26
L5.	San Luis Obispo County — Public Health Dept., Environmental Health Division	34
L6.	San Luis Obispo County — Engineering Department	37
L7.	San Luis Obispo County — Agriculture Department	40
L8.	San Luis Obispo County — General Services, Parks	44
L9.	Coastal San Luis Resource Conservation District (RCD)	47
Secondary Agencies		
L10.	City of Morro Bay — Recreation and Parks Department	50
L11.	Air Pollution Control District of San Luis Obispo County (APCD)	52
L12.	San Luis Obispo County Council of Governments (SLOCOG)	54

TABLE 2 (CONT.)
INDEX OF AGENCY FACT SHEETS IN INSTITUTIONAL INVENTORY

SECTION 2.2	STATE AGENCIES	
AGENCY NUMBER	AGENCY NAME	PAGE IN SECTION
Priority Agencies		
S1.	California Coastal Commission (CCC), Resources Agency	57
S2.	Department of Fish and Game (DFG), Resources Agency	63
S3	Department of Fish and Game, Office of Oil Spill Prevention and Response (OSPR), Resources Agency	69
S4	Department of Health Services (DHS), Health & Welfare Agency	75
S5	Department of Pesticide Regulation (DPR), Cal/EPA	80
S6	Regional Water Quality Control Board (RWQCB), Cal/EPA	85
S7	State Coastal Conservancy (SCC), Resources Agency	98
S8	State Lands Commission (SLC)	103
S9	State Water Resources Control Board (SWRCB), Cal/EPA	106
Secondary Agencies		
S10	California Conservation Corps, Resources Agency	116
S11	California Integrated Waste Management Board (CIWMB), Cal/EPA	118
S12	California National Guard – Camp San Luis Obispo, Military Department	121
S13	Department of Boating and Waterways (DBW), Resources Agency	124
S14	Department of Conservation (DOC), Resources Agency	127
S15	Department of Forestry and Fire Protection (CDF), Resources Agency	130
S16	Department of Parks and Recreation (DP&R), Cal/EPA	33
S17	Department of Toxic Substances Control, Cal/EPA	135
S18	Department of Transportation (Caltrans), Business, Transportation & Housing Authority	139
S19	Department of Water Resources (DWR), Resources Agency	141
S20	Office of Environmental Health Hazard Assessment (OEHHA), Cal/EPA	144
S21	University of California, Cooperative Extension Service (U.C. Extension)	145

TABLE 2 (CONT.)
INDEX OF AGENCY FACT SHEETS IN INSTITUTIONAL INVENTORY

SECTION 2.3	FEDERAL AGENCIES	
AGENCY NUMBER	AGENCY NAME	PAGE IN SECTION
Priority Agencies		
F1.	U.S. Environmental Protection Agency (EPA)	149
F2.	U.S. Army Corps of Engineers (ACOE)	157
F3.	U.S. Fish and Wildlife Service (USFWS), U.S. Dept. of the Interior	162
F4.	Natural Resources Conservation Service (NRCS), U.S. Dept. of Agriculture (USDA)	168
Secondary Agencies		
F5.	Farm Service Agency (FSA), USDA	175
F6.	National Oceanic and Atmospheric Administration (NOAA), U.S. Dept. of Commerce	176
F7.	NOAA, National Marine Fisheries Service (NMFS), U.S. Dept. of Commerce	180
F8.	U.S. Coast Guard (USCG)	182
F9.	U.S. Forest Service (USFS), USDA	184
F10.	U.S. Geological Survey (USGS), U.S. Dept. of the Interior	187

2.1 LOCAL/REGIONAL AGENCIES

Primary Agencies Involved In Protection of The Morro Bay Estuary

- L1. City of Morro Bay — Planning and Building Department -- Page 15
- L2. City of Morro Bay — Public Works Department -- Page 20
- L3. City of Morro Bay — Harbor Department -- Page 23
- L4. San Luis Obispo County — Planning and Building Department -- Page 26
- L5. San Luis Obispo County — Public Health Dept., Environmental Health Division -- Page 34
- L6. San Luis Obispo County — Engineering Department -- Page 37
- L7. San Luis Obispo County — Agriculture Department -- Page 40
- L8. San Luis Obispo County — General Services, Parks -- Page 44
- L9. Coastal San Luis Resource Conservation District (RCD) -- Page 47

Secondary Agencies

- L10. City of Morro Bay — Recreation and Parks Department -- Page 50
- L11. Air Pollution Control District of San Luis Obispo County (APCD) -- Page 52
- L12. San Luis Obispo County Council of Governments (SLOCOG) -- Page 54

→ L1. City of Morro Bay --- Planning and Building Department						
Priority problems addressed (✓) *						Key programs/activities/etc.
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	(relating to the priority problems)
✓	✓	✓	✓	✓	✓	• General Plan (R)
✓	✓	✓	✓	✓	✓	• LCP (R)
✓	✓	✓	✓	✓	✓	• CEQA Responsibilities (R)
						• City Plans (approved by the planning commission) (RM)
-	-	-	-	-	-	Waterfront Master Plan (NR)
	✓					Tidelands Master Plan (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The City of Morro Bay is dedicated to the preservation and enhancement of the quality of life, and the City strives to provide a level of municipal service and safety consistent with and responsive to the needs of the public. The City exercises its local planning and land use functions pursuant to State Planning and Zoning Law, the Subdivision Map Act, the California Coastal Act, and the California Environmental Quality Act (CEQA). Program authorities include: (1) General Plan; (2) Morro Bay Local Coastal Program (LCP)/Land Use Plan (LUP); (3) Zoning Ordinance (Municipal Code, Title 17); (4) Subdivision Ordinance (Municipal Code, Title 16); and (5) Municipal Code, Chapter 14, Building Section.

II. JURISDICTION

The jurisdictional limits of the City extend from the oil terminal at the north end of Morro Bay to Morro Bay State Park at the south. The Morro Bay watershed boundary runs through the City's southern portion. Most of the City lies within the coastal zone except for a small area in the north foothills. The City's LUP applies to everything except this small area. The LUP divides the City into 10 separate planning areas defined by distinct characteristics found throughout the City. These areas are: North Morro Bay, Atascadero Beach, Del Mar, Morro Highlands, Morro Rock, Bayfront, Central Morro Bay, Morro Bay State Park, Harbor and Navigable Ways, and Morro Bay Sandspit. Storm drains in the residential/commercial portions of the City that lie along the Morro Bay waterfront have outlets to the bay.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ♦ **General Plan/LCP** — (State Planning and Zoning Law; Subdivision Act; California Coastal Act of 1976; California Environmental Quality Act) The City guides development through its General Plan and LCP. The policies of these plans are carried out through the Zoning Ordinance and other regulations. The City sets specific criteria for, among other things, intensity and density of land use via a public participation process.
- ♦ **Ordinances and Other Regulations** — The City implements and enforces the ordinances and regulations that contain specific criteria to guide development consistent with the General Plan and LCP policies. Implementation activities include project application review, permitting, inspections and stop work orders among other things.
 - **General Plan (1988)** — (California Government Code, §§ 65300 *et seq.*) The General Plan outlines the City's policies and goals for development. The General Plan contains both "policies" and "programs." Policies, which are specific statements of principle or of guiding actions, represent a general direction that a governmental agency sets to follow in order to meet its goals and objectives before undertaking an action project. A program is an action, activity, or strategy carried out in response to adopted policy to achieve a specific goal or objective. Policies and programs establish the "why," "how" and "when" for carrying out the "what" and "where" of goals and objectives. (California Planning Roundtable, California General Plan Glossary.)
 - **LCP** — (California Coastal Act of 1976; P.R.C. §§ 30000). The California Coastal Commission certified the City's LUP in October 1982. In January 1983, the City began issuing coastal development permits (CDPs) for development in the coastal zone. In October 1984, the LCP (including ordinances) was certified, at which time the City assumed full permitting authority. The LUP, which is designed to plan and provide criteria for evaluating future development within the City and to provide for orderly growth, includes policies that address runoff, flow, and habitat loss.
 - **The Morro Bay City Zoning Ordinance (ZO)** (Municipal Code Title 17) — (Government Code § 56100 *et seq.* and § 65800 *et seq.*). The purpose of the ZO is to promote the growth of the City in an orderly manner and to promote the public health, safety, peace, comfort and general welfare of the City by establishing regulations pertaining to uses of land and uses, location, height, bulk, size and types of buildings and open spaces around buildings in certain districts; providing for the administration and enforcement of such regulations and prescribing penalties for violations thereof.
 - **Building Code Ordinance of the City** (Buildings and Construction, Title 14) — (Government Code § 38601 & 38660; Health and Safety Code § 17910 *et seq.*). The purpose of the Building Code Ordinance is to provide minimum requirements for the protection of health, property, safety and welfare of the general public. Examples of ordinances that pertain to the protection of the bay and to water quality, include sanitation issues addressed in § 14.52.070 (related to floating docks and marinas); the reduction of capacity of city owned and/or operated wells and the prevention of groundwater

contamination due to pollution addressed in § 14.68 (construction, repair, modification, and destruction of wells); and flood prevention including methods and provisions which restrict uses that would result in erosion hazards or increase erosion potential (addressed in § 14.72).

- **The City of Morro Bay Subdivision Ordinance** (Subdivisions Title 16.04) — (California Subdivision Map Act; Government Code § 66410 *et seq.*). The Subdivision Ordinance regulates and controls the initial design and improvement of subdivisions (common interest developments). The ordinance, among other requirements, must provide for proper grading and erosion control, including the prevention of sedimentation or damage to offsite property.
- **Permitting** — (General Plan and LCP) Permits issued include coastal development permits (CDPs) for development in the coastal zone, use permits, conditional use permits, minor use permits, and emergency permits.
- ♦ **CEQA** — (California Environmental Quality Act of 1970; Public Resources Code §§ 21000 *et seq.*) Within its jurisdiction, the City of Morro Bay is often a CEQA lead agency for conducting or approving projects. The City's responsibilities under CEQA include: (1) to determine if a development proposal is a "project" subject to CEQA review; (2) to conduct an Initial Study for projects requiring CEQA review; and (3) to prepare, after completing the Initial Study, either a Notice of Preparation of an Environmental Impact Report (EIR) (for projects which may cause significant adverse environmental effects that cannot be reduced to insignificant levels by implementation of feasible mitigation measures) or a Negative Declaration (the lead agency's explanation of why a project will not create any significant adverse environmental impacts and, therefore, does not require preparation of an EIR).

B. Resource Management Activities/Programs

The resource management programs and activities of the City Planning and Building Department overlap with the regulatory and planning functions described in this section, as well as with programs/activities conducted by the City's Public Works, Harbor, and Parks Departments.

C. Finance Mechanisms

This agency does not implement and finance mechanism activities or programs.

D. Voluntary Initiatives/Incentive Programs (i.e., public and/or private efforts)

Pursuant to State Planning and Zoning Law, Subdivision Map Act, Coastal Act of 1976, and CEQA, the City develops plans by soliciting staff recommendations, presenting the recommendations to the public for comment, responding to comments and presenting revised plans to the City Council for approval. Plans are reviewed and updated periodically. The Planning and Building Department reviews and recommends decisions on development in the City pursuant to various plans approved by the Planning Commission

- ♦ **Waterfront Master Plan** — This plan outlines ideas for future City actions and possible capitol projects between Morro Rock and Tidelands Park. The waterfront area of Morro Bay

is comprised of four subareas: Morro Rock/Coleman Park, T-Piers/Fishermen Working Area, Embarcadero Visitor Area, and Tidelands Park. The City Council adopted this plan May 28, 1996, however, the City's LCP must be amended to allow for this plan to be implemented (the plan recommends zoning amendments and guidelines that entail changes to the LCP), and therefore it must go to the Coastal Commission for review and approval.

- ♦ **Tidelands Park Master Plan** — This plan addresses recreational and other uses of Tidelands Park—an approximately nine-acre site that is bordered on the east by small coastal bluffs and private residences, and on the south and west by the Harbor. Tidelands Park contains a recreational boat launch ramp and commercial fishing boat slips. A lateral dock with a vessel sewage pumpout facility has been added in recent years. The dock improves the public boat launch and ramp area and allows additional pedestrian access to the waterfront. The Plan is jointly implemented by staff of the Harbor and Recreation and Parks Departments.
- ♦ **Water Management Plan** — (CMB General Plan Program LU-79, 80). This plan addresses how the City will meet its current and future (based on maximum projected population) demand for water. City water demand is met through existing ground water wells, the State Water Project, water conservation programs, and reclaimed water. Water produced at a desalination plant (currently idle) can be used to make up for shortfalls in other water sources during droughts and to blend with other sources as needed to meet drinking water quality standards.
- ♦ **Wastewater Reclamation Program** — (CMB General Plan Program LU-80.1) When implemented, this program would provide approximately 770 acre-feet per year of reclaimed water for agriculture and golf courses.
- ♦ **Master Water Plan** — (CMB General Plan Program C-35.1) This plan describes deficiencies in the size and condition of the City's water pipelines, and proposes improvements to be completed in five 5-year phases. Recommended improvements include correcting lines that experience low pressure, and replacing lines that leak or that are too small to provide for domestic and fire flows.
- ♦ **Storm Drain Master Plan** — The Master Plan incorporates current land use information and future development policies consistent with the City's General Plan Housing Element, and LCP into a plan to meet the City's storm drainage needs. The Plan maps the City's urban runoff collection and discharge points (21 outlets drain into Morro Bay and six drain into the ocean), and includes design parameters to add silt/grease traps to the storm drains. The plan also documents construction projects necessary to convey storm runoff, and recommends measures to implement the master plan including budgeting and financing alternatives and drainage ordinances.
- ♦ **Wastewater Treatment Program** — (General Plan Policy LU-81/CMB LUP Policy 3.06) The City is continuing a program to provide sufficient wastewater treatment to accommodate the City's projected buildout population. Based on a projected buildout population of 12,195, the City Planning Commission, pursuant to CDP No. 406-01, approved the further expansion of the City's wastewater treatment facilities to 2.4 million gallons per day (MGD).

- ♦ **Sewer Master Plan/Collection System Master Plan** — (CMB General Plan Program C-36)
These plans are identified in the City of Morro Bay General Plan. The Sewer Master Plan specifies programs necessary to assure adequate sewage flow capacities within the City's sewers. The Collection System Master Plan specifies measures necessary for the proper collection of City wastewater.

IV. ADMINISTRATION

The Director of the Planning and Building Department serves as the Administrator of the Office of Zoning Administration, and is authorized to act on applications for Temporary Use Permits, Minor Use Permits and certain minor variances. The Director of Planning and Building is also referred to as the Environmental Coordinator, and Secretary to the Planning Commission. The Planning Commission is designated as the advisory agency with respect to the Subdivisions pursuant to the Subdivision Map Act. The Subdivision Committee consists of a building inspector, the director of Public Works/City Engineer, the fire chief, the director of recreation and parks, and the planning and building director. For further information, contact:

Planning and Building Department
535 Harbor Street
Morro Bay, CA 93442
(805) 772-6200

→ L2. City of Morro Bay --- Public Works Department						
Priority problems addressed (✓) *						Key programs/activities/etc.
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	(relating to the priority problems)
✓	✓	✓	✓	✓	✓	• Regulatory activities pursuant to City of Morro Bay General Plan, Land Use Plan, and Zoning Ordinance (R)
✓	✓	✓	✓	✓	✓	• Implementation of Approved City Plans (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The City of Morro Bay is dedicated to the preservation and enhancement of the quality of life, and the City strives to provide a level of municipal service and safety consistent with and responsive to the needs of the public. The City exercises its local planning and land use functions pursuant to California Planning and Zoning Law, the Subdivision Map Act, the California Coastal Act, and the California Environmental Quality Act (CEQA). Program authorities include: (1) General Plan; (2) Morro Bay Local Coastal Program/Land Use Plan; (3) Zoning Ordinance (Title 17); (4) Subdivision Ordinance (Title 16); and (5) Municipal Code, Chapter 14, Building Section.

II. JURISDICTION

The jurisdictional limits of the City of Morro Bay extend from the oil terminal at the north end of Morro Bay to Morro Bay State Park at the south. Almost the entire city of Morro Bay lies within the coastal zone with the exception of a small area in the north foothills. The LUP applies to everything except this small area. The Morro Bay watershed boundary runs through the southern portion of the City of Morro Bay. Storm drains within the residential/commercial portions of the City along the waterfront of the bay have outlets into the Bay.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

III. FUNCTIONS (regulatory, resource management, finance, voluntary, education/technical assistance, and/or planning)

A. Regulatory Activities/Programs

- ♦ **Overview of Regulatory Activities** — The Public Works Department follows the guidance of the City of Morro Bay's General Plan and Local Coastal Program (LCP)/Land Use Plan (LUP). An example of Public Works regulatory activities includes such specified regulatory authority as determining whether a driveway has been abandoned, and if so, require its removal, or cause an abandoned drive to be removed (Morro Bay Zoning Ordinance § 17.44.030.C). Another example is as part of approving any Conditional Use Permit, the Public Works Director or Planning Commission has the authority to require a contribution in kind or through fees for the mitigation of storm water drainage problems as identified in the storm drain master plan and in proportion to the impacts created by the development, as part of approving any Conditional Use Permit as a condition of approval for any off site improvements and or easements related to streets, sewers, waterlines, storm drainage, fire hydrants and any other onsite or offsite facility deemed reasonable necessary to protect the public health, safety or welfare (ZO § 17.44.110 E.4).

B. Resource Management Activities/Programs

The resource management programs and activities of the City Public Works Department overlap with the regulatory and planning functions described in this section, as well as with programs/activities conducted by the City's Public Works, Harbor, and Parks Departments.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

The Public Works Department implements several plans approved by the Planning Commission including the plans listed below:

- ♦ **Water Management Plan** -- (CMB General Plan Program LU-79, 80) This plan addresses how the City will meet its current and projected (based on maximum projected population) demand for water. The City's water demand can be met through (1) existing ground water wells, (2) water from the State Water Project (SWP), (3) water produced from a desalination plant (now idle), (4) water conservation programs, and (5) reclaimed water. Desalinated water is used to make up for shortfalls in ground water and/or SWP water during droughts and to blend with other sources as needed to meet the City Council's established drinking water quality standards.
- ♦ **Wastewater Reclamation Program** -- (CMB General Plan Program LU-80.1): -- This program, when implemented, would provide approximately 770 acre-feet per year of reclaimed water for agriculture and golf courses.

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- ◆ **Master Water Plan** (CMB General Plan Program C-35.1) This plan describes deficiencies in the size and condition of the City's water pipelines, and proposes improvements to be completed in five 5-year-phases. Recommended improvements include correcting lines that experience low pressure, and replacing lines that leak or that are too small to provide for domestic and fire flows.
- ◆ **Storm Drain Master Plan** — This plan documents a series of construction projects necessary to convey storm runoff, and recommends measures to implement the master plan including budgeting and financing alternatives and drainage ordinances.
- ◆ **Wastewater Treatment Program** — (General Plan Policy LU-81 / CMB LUP Policy 3.06) The City is continuing a program to provide sufficient wastewater treatment to accommodate the City's projected buildout population. Based on a projected buildout population of 12,195, the City Planning Commission, pursuant to CDP No. 406-01, approved the further expansion of the City's wastewater treatment facilities to 2.4 million gallons per day (MGD).
- ◆ **Sewer Master Plan/Collection System Master Plan** -- (CMB General Plan Program C-36) These plans are identified in the City of Morro Bay General Plan. The Sewer Master Plan specifies programs necessary to assure adequate sewage flow capacities within the City's sewers. The Collection System Master Plan specifies measures necessary for the proper collection of City wastewater.

IV. ADMINISTRATION

For further information, contact:

Public Works Department
695 Harbor Street
Morro Bay, CA 93442
(805) 772-6261

→ L3. City of Morro Bay --- Harbor Department

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓	✓	• Regulatory activities pursuant to City of Morro Bay General Plan, Land Use Plan, and Zoning Ordinance (R)
	✓	✓				• Live-aboard permits program (R)
✓			✓		✓	• Coordination of federal dredging activities (RM)
					✓	• Management of Tidelands lease properties/City dockage facilities (NR)
	✓	✓	✓			• Derelict vessel removal (NR)
	✓					• Los Robles Dive Team (NR)
	✓					• Harbor Patrol Service (NR)
					✓	• Waterfront Master Plan (NR)
						• Tidelands Park Master Plan (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The Harbor Department, created in 1985, is a service-oriented agency that provides boater assistance and emergency response for the waters of Morro Bay, including water safety, education, and school and community outreach programs. The Department maintains all harbor facilities, coordinates federal dredging activities, administers Tidelands lease sites, and cooperates with other City departments to insure a high quality of life for harbor users and citizens of Morro Bay.

II. JURISDICTION

The tidelands and submerged lands within the incorporated boundaries of the City of Morro Bay have been granted by the State of California to the City of Morro Bay. The tidelands are managed by the Harbor Department.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ♦ **Overview of Regulatory Activities:**— The Harbor Department follows the guidance of the City of Morro Bay's General Plan and Local Coastal Program (LCP)/Land Use Plan (LUP). Examples of policies that address polluted runoff issues in the Harbor area are found in LUP Chapter IX (Policies 7.01-7.17) which discuss fishing and recreational boating (these policies have been incorporated into the General Plan). Many of the policies focus on specific areas around the bay, however the first few policies are broader in nature as shown below. The City's Zoning Ordinance (ZO) which implements the LUP policies (Municipal Code, Title 17) also has several sections related to the control of NPS pollution. The Harbor Patrol enforces City laws, regulations, and ordinances affecting the waters of Morro Bay.
- ♦ **Liveaboard Permits Program** — The Harbor Director issues and enforces live-aboard permits, under the City's Liveaboard Ordinance (Chapter 15.40, Vessel Habitation). The Liveaboard Ordinance is a public health and safety ordinance designed to regulate persons who live on boats anchored or moored on tidelands granted to the city.

B. Resource Management Activities/Programs

- ♦ **General Information** — The Harbor District coordinates federal dredging activities, manages tidelands lease properties and all city dockage facilities. The city is working on establishing an eelgrass mitigation bank to allow for dredging of the mooring area and to assist with future dock construction or other dredging projects.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ **Derelict Vessel Removal** — The Harbor Department maintains an aggressive lien sale, demolition program intended to reduce the number of derelict vessels in Morro Bay.
- ♦ **Los Robles Dive Team** — This team does voluntary cleanup dives in Morro Bay by picking up trash and debris that is found in the bay.
- ♦ **The Harbor Patrol Service** — The Harbor Patrol conducts informal education to boaters and marina users on issues related to waste discharge and keeping materials from entering the water. The Harbor Patrol also conducts educational programs with local elementary schools. The Harbor Department has also published a brochure on pumpout facilities, and is looking towards working with the NEP and the Friends of the Estuary to fund interpretive signs on water pollution prevention.

Waterfront Master Plan — (Chapter 3, Transportation and Harbor). Harbor Facilities section recommends the development of an interpretive program for the waterfront area of Morro Bay. Suggestions include: (1) maps or photographs with interpretive text showing the natural, ecological and working operations of the Bay (these displays might be mounted at the dead-end streets fronting the bay or at key access points); (2) scenic and historic tours of the Embarcadero area both on land and water; and (3) a maritime museum and information center.

The Harbor Department is involved in the city planning process by working together with the Planning Department on the following plans:

- ♦ **Waterfront Master Plan** — This plan outlines ideas for future City actions and possible capitol projects between Morro Rock and Tidelands Park. The waterfront area of Morro Bay is comprised of four subareas: Morro Rock/Coleman Park, T-Piers/Fishermen Working Area, Embarcadero Visitor Area, and Tidelands Park.
- ♦ **Tidelands Park Master Plan** — Staff of the Harbor and Recreation and Parks Departments implement all or portions of this plan which is devoted to appreciation of the natural features of Tidelands Park and addresses recreational and other uses of the Park. The Park contains a recreational boat launch ramp and commercial fishing boat slips. A lateral dock with a vessel pumpout facility was added recently; this dock improves the public boat launch and ramp area and allows additional pedestrian access to the waterfront. Additional proposals exist for supplemental boat access facilities which the Plan states will reduce peak vehicle congestion in the parking lot at launching time, diminish congestion on the bay, and provide an alternative site for water dependent marina uses. If such facilities are considered, they will be designed to take into account potential impacts to visual resources (e.g., views of Morro Rock), the natural marine biology and associated habitat, and current flow.

IV. ADMINISTRATION

The Harbor Director oversees the activities of the Harbor Department. The Director reports to the City Administrator. The Harbor Advisory Board acts in the advisory capacity to the City Council in areas relating to harbor activities. The Harbor Department administers all tidelands property granted to the City of Morro Bay. The Harbor Patrol provides boater safety and emergency response, and enforces City laws, regulations, and ordinances affecting the waters of Morro Bay.

For further information, contact:

Harbor Department
75 Embarcadero
Morro Bay, CA 93442
805) 772-6254

Harbor Advisory Board
75 Embarcadero
Morro Bay, CA 93442
(805) 772-6254

L4. County of San Luis Obispo**→ Department of Planning and Building**

Priority problems addressed (✓) *						Key programs/activities/etc.
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	(relating to the priority problems)
✓	✓	✓	✓	✓	✓	• General Plan/Land Use Ordinance (R)
✓	✓	✓	✓	✓	✓	• LCP/Coastal Land Use Ordinance (R)
				✓	✓	• Area Plans (R)
✓					✓	• Real Property Division Ordinance (R)
✓					✓	• Permitting (R)
					✓	• Maps (R)
✓	✓	✓	✓	✓	✓	• CEQA Responsibilities (R)
✓						• Sedimentation & Erosion Control (RM)
✓					✓	• Resource Management System (RM)
✓				✓	✓	• Agricultural Preserve Program (RM)
						• Capital Improvement Program (F)
					✓	• County/Community-Based Transfer of Development Credit Programs (NR)
✓				✓	✓	• Planning Area "Programs" (Voluntary) (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The Department of Planning and Building plans the use of land in San Luis Obispo County in order to protect public health and safety, conserve natural resources, and sustain a high quality environment. The Department manages growth and development through administration and enforcement of land use policies and regulations. Program authorities include: (1) the General Plan [including the Land Use Element, other General Plan elements (e.g., Open Space, Energy,

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

Recreation, etc.), and the Land Use Ordinance (County Code, Title 22)]; (2) the County Local Coastal Program (LCP) which is comprised of seven documents including the Coastal Zone Land Use Ordinance (County Code, Title 23); (3) Regional Transportation Plan (1993); (4) Local Oil Spill Contingency Plan (1993); and (5) the California Environmental Quality Act (CEQA). Divisions within the Department of Planning and Building include those discussed below.

- ◆ **Environmental Services Division** -- The Environmental Services Division provides environmental review and resource planning services which result in the maintenance of a high quality environment consistent with CEQA and other applicable regulations. This division also includes the Energy and Natural Resources Section, which reviews all oil and gas development and mining activities in the County.
- ◆ **Planning Services Division** -- The Planning Services Division creates and monitors plans and strategies that guide future land use, reviews proposed development projects, and oversees community development block grants.
- ◆ **Building Services Division** -- The Building Services Division protects public health and safety by enforcing established construction standards and making sure that construction complies with approved plans.

II. JURISDICTION

The County is divided into 15 Planning Areas. Four Planning Areas lie wholly or partly within the Morro Bay watershed; County jurisdiction includes those areas that are not under the City of Morro Bay's jurisdiction. These four Planning Areas are described below.

- ◆ **Estero Area Plan, LCP (revised 11/96)** — The Estero Planning Area contains the majority of the Morro Bay watershed and includes the coastal area from Point Estero on the north to Point Buchon on the south, and from the coast to as far as seven miles inland. Urban areas in the Planning Area are the City of Morro Bay and the unincorporated communities of Cayucos and Los Osos. Including the City of Morro Bay, the Planning Area covers 71.5 square miles.
- ◆ **San Luis Obispo Area Plan (revised 1/97)** — The San Luis Obispo Planning Area encompasses the unincorporated area adjacent to the City of San Luis Obispo as well as surrounding agricultural and rural lands. It extends to the Los Padres National Forest on the north and east, Cuesta College and Camp San Luis Obispo to the west, and the Irish Hills and Arroyo Grande fringe to the south. This Planning Area includes significant portions of Chorro, San Luis Obispo, and Pismo Creek watersheds.
- ◆ **San Luis Bay Coastal Area Plan (3/97)** — The San Luis Bay Planning Area, which encompasses the south central coastal portion of the County, contains a small portion of the southernmost part of the Morro Bay watershed (east of Pecho Valley Road and south of Los Osos Creek). This area includes most of Montana de Oro on the north, and extends south to the southern county boundary in a narrow strip along the coast.
- ◆ **Salinas River Area Plan (revised 11/96)** — The Salinas River Planning Area, which is located north of the Estero and San Luis Obispo Planning Areas, contains a small area of the northeastern portion of the Morro Bay watershed.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ◆ **General Plan/LCP** — (California Government Code, §§ 65300 *et. seq.*) The County guides development through its General Plan and LCP. General Plan and LCP policies are carried out through planning area standards and programs in the area plans, the Land Use Ordinance (LUO) and Coastal Zone Land Use Ordinance (CZLUO) respectively and through other authorities. The County implements and enforces ordinances and regulations that contain criteria to guide development consistent with General Plan and LCP policies. Implementation activities include project application review, permitting, inspections, stop work orders, fines, etc. These activities are conducted via the following plans, policies and ordinances:
- ◆ **General Plan Policies/LUO:** — The County General Plan is comprised of several documents, including the Land Use Element, other General Plan elements (e.g., Conservation, Open Space, Energy, Recreation, etc.), and the LUO. Together the Land Use Element and LUO are an integrated land use policy and regulatory system: the Land Use Element is a plan describing official county policy on the location of land uses and their orderly growth and development; the LUO regulates site design and development. The Land Use Element has three major sections: (1) Framework for Planning, (2) 15 separate area plans, and (3) the official maps. As discussed above, four area plans cover portions of the Morro Bay watershed. The General Plan contains both “policies” and “programs.” Policies, which are specific statements of principle or of guiding actions, represent a general direction that a governmental agency sets to follow in order to meet its goals and objectives before undertaking an action project. A program is an action, activity, or strategy carried out in response to adopted policy to achieve a specific goal or objective. Policies and programs establish the “why,” “how” and “when” for carrying out the “what” and “where” of goals and objectives. (California Planning Roundtable, California General Plan Glossary.)
- ◆ **Area Plans** — The Estero, San Luis Obispo, San Luis Bay, and Salinas River Area Plans allocate land use within their respective portions of the Morro Bay watershed by land use categories. The land use categories determine the varieties of land use that may be established on a parcel of land, and define allowable densities and intensities of development. For example, San Luis Obispo Area Plan goals that address priority estuary problems include: (1) maintain/improve water quality at safe and healthy levels; (2) protect/enhance wildlife habitat areas; and (3) protect natural drainage channels and floodways in their natural condition.
- ◆ **LCP Policies/CZLUO** — The San Luis Obispo County LCP is comprised of seven documents: the *Framework for Planning*, *Coastal Plan Policies*, the CZLUO, and the four Planning Areas of Estero, North Coast, San Luis Bay, and South County. As noted above, the Estero Planning Area covers the majority of the Morro Bay watershed. In April 1984, the California Coastal Commission certified the County’s Land Use Plan (LUP). In February 1988, the Commission effectively certified the CZLUO as amended. In March 1988, the

County assumed full permitting authority. The County's LCP contains a number of policies addressing runoff, flow, and habitat loss issues within the coastal zone.

- ♦ **Maps** — (CZLUO § 23.01.022) The County has prepared and maintains numerous maps which are on file in the County Planning Department. They include: Official Land Use maps, Building Line maps, and Environmentally Sensitive Habitat maps (which show areas that are sensitive habitats for plants and animal life, including marine mammals).
- ♦ **County-wide and Community-Based TDC Programs** — (LUO § 22.04.500 *et. seq.*) The TDC Program, adopted in the County LUO, is a land use planning tool that allows the ability to develop (called credits) to be separated from a "sending" site and moved to a "receiving" site. Thus the transfer of the credits reduces the development possible on the sending site and increases the development possible on the receiving site. One of the main purposes of the TDC Program is to encourage the protection of areas of high environmental quality, including but not limited to important geological features, wetlands and marshlands, undeveloped coastal areas, and important watersheds. Community-based TDC Programs are developed for specific communities. They may contain provisions other than those standards set forth in the LUO for the Countywide TDC Program. Community-based programs are locations and standards established through community input where properties are eligible for consideration as specific sending and receiving sites. These areas are then designated through the individual Area Plans. The purpose is to allow a community to develop a TDC program that is tailored to the individual community's goals. [See also Section D (Voluntary Incentives).]
- ♦ **Real Property Division Ordinance** — The Real Property Division Ordinance regulates and controls the initial design and improvement of the division of land. The ordinance promotes orderly development of real property, protects purchasers and surrounding landowners and, among other requirements, assures compliance with county grading and erosion control standards, including prevention of sedimentation and damage to offsite property.
- ♦ **Permitting** — The Department issues permits consistent with policies, ordinances etc. They cannot approve any land use for which the LUO requires a permit, unless the use is consistent with the Land Use Element. Similarly, the Department cannot approve any land use for which the CZLUO requires a permit, unless the use is consistent with the LCP. Permits issued pursuant to the General Plan and/or LCP include coastal development permits (CDPs) for development in the coastal zone, site plans, Minor Use Permits, Development Plans, emergency permits, and land use permits for grading, tree removal, and drilling. Examples of some of these permits are provided below.
 - **CDPs:** — (Coastal Area Plans) In the coastal zone, the County of San Luis Obispo has authority to issue CDPs in its jurisdiction, pursuant to the CCC-certified LCP.
 - **Grading:** — (CZLUO & LUO § 23.05.025). In general, a grading permit shall be obtained before beginning any grading, excavation, fill or diking or dredging activities involving wetlands and riparian areas, as well as various activities that alter natural drainage patterns.

- **Tree removal:** — (CZLUO & LUO § 23.05.060) The purpose is to protect trees (and other coastal vegetation) from indiscriminate or unnecessary removal. Tree removal is defined as “the destruction or displacement of a tree by cutting, bulldozing, or other mechanical or chemical methods, which results in physical transportation of the tree from its site and/or death of the tree.”
- **Flood hazard area:** — (CZLUO & LUO § 23.07.064) Drainage plan approval is required where any portion of the proposed site is located within a designated Flood Hazard Area.
- **Drilling:** — (CZLUO & LUO § 23.08.173) A permit is required to drill wells for the extraction of oil, gas, geothermal steam, or any other subterranean resource except water.
- ♦ **Sedimentation and Erosion Control Plan** — (CZLUO § 23.05.036) The County Engineer requires submittal of a sedimentation and erosion control plan for review and approval under the following conditions:
 - a) when grading that requires a permit is proposed to be conducted or left in an unfinished state during the period from October 15 through April 15; or
 - b) for land-disturbance activities on steep slopes (>30%), on unstable areas, on soils rated as having severe erosion hazard, or within 100 feet of a water course; or
 - c) for the placing or disposal of organic or earthen materials (e.g., soil, silt, bark, slash, and sawdust) from logging, construction and other soil-disturbance activities above or below the anticipated high water line of a watercourse, where rainfall or runoff may carry such materials into waters in quantities that are harmful to fish, wildlife, or other beneficial uses.
- ♦ **CEQA** — (Public Resources Code §§ 21000 *et. seq.*) Within its jurisdiction, the County is often a CEQA lead agency for conducting or approving projects. The County’s responsibilities under CEQA include: (1) determining if a development proposal is a “project” subject to CEQA review; (2) conducting an Initial Study for projects requiring CEQA review; and (3) preparing, after completing the Initial Study, either a Notice of Preparation of an Environmental Impact Report (EIR) (for projects which may cause significant adverse environmental effects that cannot be reduced to insignificant levels by implementation of feasible mitigation measures) or a Negative Declaration (the lead agency’s explanation of why a project will not create any significant adverse environmental impacts and, therefore, does not require preparation of an EIR).

B. Resource Management

- ♦ **Resource Management System (RMS)** — The County General Plan has a RMS to track, monitor, and evaluate the carrying capacity of essential social and environmental resources (e.g., water supply and delivery, sewage disposal, roads, and air quality). The RMS uses three levels of severity to inform decision makers of current and potential deficiencies. If a resource has exceeded or is projected to exceed its carrying capacity, a resource capacity study is developed, and strategies are implemented to ensure that the resource is not exhausted. An *Annual Resource Summary Report* includes an annual determination on the

remaining capacity of each resource, and identifies actions being taken to address resource problems.

- ♦ **Agricultural Preserve Program** — (CZLUO § 23.04.024) The County executes Agricultural Preserve contracts through procedures enabled by the California Land Conservation Act of 1965. Approval of a division of land covered by an agricultural preserve contract is discretionary, and a parcel size larger than the minimum designated in the contract may be required to ensure agricultural sustainability.

C. Finance Mechanisms

- ♦ **Capital Improvement Program** — This Program, which is reviewed annually by the Board of Supervisors, prioritizes funds to carry capital projects forward.

D. Voluntary Initiatives/Incentive Programs (i.e., public and/or private efforts)

- ♦ **Transfer of Development Credit (TDC) Program** — (LUO § 22.04.500 *et. seq.*) This voluntary, incentive-based, and market-driven program allows willing sellers and buyers to transfer development credits from one parcel of land to another. [See also Section F (Planning)]

Department of Planning and Building resource protection staff organize special projects; other public education and technical assistance are provided by community liaison planners and public information/research staff. In addition, the Department of Planning and Building supports and/or partially staffs several county and community commissions and boards. A few of these commissions/boards are described below:

- **County Planning Commission** — a five member citizen commission appointed by the Board of Supervisors to act as the decision-making body for subdivisions and major development applications and to make recommendations to the Board on planning matters;
- **County Subdivision Review Board** — the agency authorized to make decisions on parcel maps (minor land divisions), lot line adjustments, and related subdivision planning matters. It consists of appointed staff members from the Planning and Building, Engineering, County Fire and Health Departments and Air Pollution Control District;
- **County Airport Land Use Commission** — an advisory agency created to discuss, study and make recommendations related to problems associated with land adjacent to County airports;
- **Agricultural Preserve Review Committee** — an advisory committee established by the Board of Supervisors to assist implementation of the agricultural preserve program;
- **Transfer of Development Rights (TDR) Review Committee** — eight members appointed by the Board of Supervisors who are authorized to make decisions on sending site applications and to make preliminary determinations regarding potential receiving sites.

Pursuant to State Planning and Zoning Law, Subdivision Map Act, Coastal Act of 1976, and CEQA, the County develops plans by soliciting staff recommendations, presenting the recommendations to the public for comment, responding to comments and presenting revised

plans to the County Board of Supervisors for approval. Area Plans are reviewed and updated periodically.

- ♦ **Planning Area "Programs"** — The Land Use Element recommends that communities, the County, or other specified public agencies initiate actions to correct local problems or conditions. These non-mandatory actions are also intended to support community objectives in implementing the General Plan. Because many recommended programs involve public expenditures, their initiation will depend upon the availability of funding and broad community support. The following are some of the public service programs for the various planning areas:

Estero Area Plan

- **Areawide Project Referral Program** — The County should establish a project referral area around the city of Morro Bay to include the Morro and Chorro Hydrologic Basin Boundaries. All projects which require more than a ministerial entitlement from the county or will result in the use of more than 1 acre foot of water per year are to be referred to the city of Morro Bay for review.
- **Additional Water Sources (Agriculture):** — The county should investigate possible sources of additional water to expand irrigated croplands as well as on hillsides that are appropriate for orchard or vineyards.
- **Public Facility** — The county should work with the operator of the Los Osos landfill to identify practices or on-site characteristics which contribute to significant sedimentation increases which impact the surrounding estuary. A management plan for correcting identified problems shall be established.
- **Wetlands Protection** — The county should explore means of encouraging acquisition or open space agreements on marshlands and creeksides to protect freshwater and bayside properties.

San Luis Obispo Area Plan

- **Basin Information** — A study should be completed that will provide information to ensure that planned intensities of groundwater-dependent land uses will not overdraft the San Luis Obispo groundwater basin or worsen any existing overdraft conditions.
- **Water Conservation Retrofit** — The County should adopt an ordinance and program to encourage developers to retrofit existing structures in the Planning Area with water-conserving plumbing fixtures.
- **Flood Control** — The County, City of San Luis Obispo, and Zone 9 of the Flood Control and Water Conservation District should update and implement the Zone 9 Flood Control Master Plan.
- **Runoff Monitoring** — The County Engineering Department should work with the City of San Luis Obispo to monitor the effects of land development on downstream runoff within the San Luis Obispo Creek floodplain.

San Luis Bay Area Plan

- **Channel Maintenance Programs** — The County Flood Control District should undertake channel maintenance programs for San Luis Obispo, See Canyon, Pismo, Arroyo Grande and Los Berros Creeks to prevent erosion and preserve the Creeks in their natural state.
- **Indian Knob - Open Space Preservation** — The county should acquire a scenic or open easement over the area at the time of new development proposals.

Salinas River Area Plan

- **Biological Inventory** — The Planning/Environmental Divisions should map and prepare a biological inventory of important native habitats and critical wildlife migration corridors.
- **Septage Disposal** — The County should secure long-term locations for safe disposal of septage.

IV. ADMINISTRATION

The Board of Supervisors serves as the legislative body of San Luis Obispo County for planning and provision of services related to public needs and the requirements of state and federal laws, establishes overall County priorities, and sets policy. Each supervisor is elected by district for a four-year term. District 2 encompasses all of the Morro Bay watershed. For further information, contact:

County of San Luis Obispo
Department of Planning and Building
County Government Center
San Luis Obispo, CA 93408
(805) 781-5603

→ L5. County of San Luis Obispo --- Health Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
	✓	✓	✓	✓		• Small Water Program (R)
			✓			• Hazardous Waste/Hazardous Materials Programs (R)
			✓			◊ Risk Management/Prevention Plan
	✓	✓	✓			• Waste Management Program (R)
	✓	✓	✓			◊ Solid Waste Program/Solid Waste Management Plan
	✓	✓	✓			◊ Liquid Waste Program
	✓	✓	✓			◊ Land Use Program
	✓	✓	✓			◊ Cross-Connection Program

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The **Public Health Department** works to fulfill the community's interest in assuring conditions that allow the optimum achievement of physical and mental health for all residents in San Luis Obispo County. The **Environmental Health Division** regulates and monitors hazardous materials in the County, and assures the safety of food, water, housing, recreational facilities, and solid and liquid waste disposal operations. Agency authorities include: California Hazardous Waste Control Law; the Community Right to Know Law (Health & Safety Code Chapter 6.95), Proposition 65, and Underground Tank Regulations (see RWQCB for more detailed code sections).

II. JURISDICTION

Countywide.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ♦ **Small Water Program** — The Health Agency's Environmental Health Division, in cooperation with the State Department of Health Service's Office of Drinking Water, is

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- > **Sediment** = rapid sedimentation
- > **Bacteria** = increased bacterial concentrations
- > **Nutrients** = increased nutrient concentrations
- > **Heavy Metals +** = increased heavy metal/toxins concentrations
- > **Reduced Flow** = freshwater flow reductions
- > **Habitat Loss** = adverse impacts to wildlife habitat

responsible for the regulation, monitoring, and permitting of public water systems in San Luis Obispo County, including monitoring how often water systems' operators conduct tests to determine that safe drinking water standards are being met. Out of 155 water systems existing county-wide, only two or three operate in the Morro Bay Watershed. The water quality is monitored monthly for bacteria and nutrient levels and every three years for physical and chemical characteristics which would include heavy metals and other toxins.

♦ **Hazardous Waste/Materials Programs**

- **Hazardous Waste Management Standards & Regulations** — The Environmental Health Division is authorized by California Hazardous Waste Control Law (CHWCL) and a Memorandum of Understanding (MOU) with the State Department of Toxic Substances Control to enforce hazardous waste management standards and regulations promulgated by the State. The regulations have been established to ensure that generators of hazardous waste employ technology and management practices for the safe storage, handling, treatment, recycling, and destruction of hazardous wastes prior to disposal. As the Countywide (except for the City of San Luis Obispo) agency for administering the Community Right to Know Law, the Division also requires handlers of hazardous waste to provide information to emergency services agencies in order to prevent environmental damage and injury to emergency personnel from a release of hazardous materials. Proposition 65, passed by California voters in 1986, requires that the County Health Officer notify the news media and the public of any potential exposure to a hazardous substance discharged into the environment.
- **Emergency Response** — The Environmental Health Division provides 24-hour emergency response to situations involving hazardous materials releases, threatened releases, spills and transportation accidents. Division staff provide technical support to fire and law enforcement incident commanders, recommend actions to protect public health, and monitor site cleanup after an incident is stabilized.
- **Underground Storage Tank** — The Environmental Health Division regulates the storage of hazardous materials and hazardous wastes in underground tanks Countywide (except for the City of San Luis Obispo). The purpose of this program is to prevent soil and groundwater contamination from leaking underground tanks. The program enforces State laws and regulations to ensure that: (1) new tanks meet new construction monitoring standards; (2) existing tanks are properly maintained, inspected and monitored for leaks; (3) used tanks are properly abandoned; and (4) any contamination is remediated.

♦ **Waste Management Programs**

- **Solid Waste Program/Solid Waste Management Plan** — The operation of the Solid Waste Program encompasses routine inspection of sanitary landfills and waste collection vehicles. Environmental Health Division staff also serve as consultants to the Solid Waste Management Commission, which is charged with advising the Board of Supervisors on the maintenance and implementation of the County Solid Waste Management Plan. Complaint investigations are performed relating to illegal dumping,

litter control and improper disposal of animal waste (e.g., large animal carcasses and fecal matter from livestock).

- **Liquid Waste Management Program** — Activities of this program include routine inspection of sewage sludge handling and disposal practices, monitoring, and the inspection and permitting of septic tank pumper trucks and septic disposal sites. Community sewage disposal by land application is becoming increasingly difficult as all of the County sewage disposal sites have closed.
- **Land Use Program** — This program provides for inspection and review of land development projects, subdivisions, parcel maps, zone changes and various types of use permits to insure the health and safety of future residents. The review, which is conducted by Health Agency staff in conjunction with Planning and Building Department staff, concentrates on adequacy of water supply and sewage disposal.
- **Cross-Connection Control Program** — The purpose of the Cross-Connection Control Program is to ensure that no "connections" or potentials for connection exist to allow degraded water (i.e., water that is hazardous to human health) to enter a potable water supply. The program requires the installation of proper backflow prevention devices to eliminate situations where contaminated water could flow backwards into a water system.

B. Resource Management Activities/Programs

This agency does not implement any resource management activities or programs.

C. Finance Mechanisms

The Agency does not fund any non-agency projects in the Morro Bay watershed.

D. Other Non-Regulatory Programs

- ♦ **Risk Management and Prevention Plan** [see Section F (Planning) below]
- ♦ **Risk Management and Prevention Plan** — The Environmental Health Division has developed and implemented a Risk Management and Prevention Plan (RMPP) Program for facilities that handle and store "Acutely Hazardous Materials" (AHMs). This program is designed to encourage handlers of AHMs to conduct comprehensive evaluations of their facilities (i.e. containment, handling practices) to minimize any potential releases of AHMs, and to protect public health and safety and the environment from releases that might occur.

IV. ADMINISTRATION

For further information, contact:

County of San Luis Obispo
Public Health Department, Environmental Health Division
2191 Johnson Avenue
San Luis Obispo, CA 93401
(805) 781-5544

→ L6. County of San Luis Obispo --- County Engineering Department						
Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓						• Flood Hazard Area permitting (R)
✓						• Drainage Plan Review & Approval (RM)
✓			✓			• Jurisdictional Authority (RM)
✓		✓	✓	✓	✓	• Flood Control District & Water Conservation District Monitoring Program (streams/groundwater/etc.) (?)
	✓					• Morro Bay National Estuary Program (NR)
	✓					• Special Districts — County Service Area 9 (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The County Engineering Department's goals related to estuarine protection and water quality issues in the Morro Bay watershed include: (1) protection of the public health by maintaining public water and sewer systems in several communities; (2) maintaining roads, bridges, and bikeways; (3) assisting the public in the processing of survey maps, plans, and permits for new development; (4) maintaining facilities of the Flood Control District; (5) coordinating programs which encourage recycling in order to achieve State and County goals for waste stream reduction; (6) assisting County residents in resolving waste hauling concerns; and (7) providing necessary services to maintain the Los Osos Landfill in compliance with federal, State, and local regulations. Program authorities include: General Plan and Framework for Planning; Area Plans; Land Use Ordinance; Special Districts (County Service Areas); San Luis Obispo County Flood Control and Water Conservation District Act; County Code 11-351.1100 & 11-352.1000 (Standard Improvement Specifications and Drawings); and the Street Highway Code.

II. JURISDICTION

County of San Luis Obispo.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

III. FUNCTIONS (regulatory, resource management, finance and non-regulatory)

A. Regulatory Activities/Programs

- ♦ **Flood Hazard Area Permitting** — (LUO) The County Engineer houses the Federal Emergency Management Agency's Flood Insurance Study for San Luis Obispo County which identifies areas of special flood hazard. Pursuant to the LUO, anyone seeking a Flood Hazard Area Permit for an area where water surface elevation data has not been provided by the Federal Insurance Administration, must demonstrate to the satisfaction of the County Engineer that the structure will not be located within the floodway or by subject to inundation by the 100-year storm. The LUO also authorizes the County Engineer to approve temporary uses that the County Planning Department may authorize, and requires that the County Engineer be notified if an emergency work must be undertaken to preserve life or property.

B. Resource Management Activities/Programs

- ♦ **Drainage Plan Review & Approval** — (CZLUO § 23.05.046) All drainage plans are to be submitted to the County Engineer for review, and are subject to the approval of the County Engineer, prior to the issuance of a land use or construction permit. No land use or construction permit (as applicable) shall be issued for a project where a drainage plan is required, unless the drainage plan is first approved. Performance standards for the control of drainage and drainage facilities ensure that projects are designed to minimize harmful effects of storm water runoff and resulting inundation and erosion on proposed projects, and to protect neighboring and downstream properties from drainage problems resulting from new development.
- ♦ **Jurisdictional Authority** — The Engineering Department is responsible for all improvements constructed in rights-of-way (rights of way may be used for roads, road drainage, or utilities). The Engineering Department also reviews improvements constructed by other agencies or individuals through an encroachment permit process.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ **Morro Bay National Estuary Program (MBNEP)** — The Engineering Department currently provides a liaison between the Department and the MBNEP to attend meetings, provide input into the program, facilitate the transfer of information, and to keep apprised of programs which may affect Departmental activities.
- ♦ **Special Districts/County Service Area (CSA) 9** — Special Districts within County Planning Areas are designed in many instances to provide efficient individual services for suburban and rural areas. CSA 9, which serves the Los Osos Valley area, was formed in 1973 to consolidate a number of single purpose districts. Authorized services related to estuarine

protection include local park maintenance, recreation/park facilities and services, tree maintenance within public right-of-way streets, street sweeping, storm drains and drainage, sewage disposal and treatment, water, irrigation, and solid waste disposal. Services are provided through "zones of benefit" which request specific types of services presently including water, drainage maintenance, septic tank maintenance, and park maintenance.

County Engineering Department has taken responsibility for the implementation of a sewer system in Los Osos which will significantly reduce nitrate contamination of the groundwater affecting the estuary required by the RWQCB due to water quality problems. County Service Area 9 has funded studies of both drainage and groundwater which could contribute ultimately to the reduction of sediment and preservation of groundwater quality and habitat.

IV. ADMINISTRATION

For further information, contact:

County of San Luis Obispo
County Engineering Department
County Government Center, Room 207
San Luis Obispo, CA 93408
(805) 781-5252

→ L7. County of San Luis Obispo --- Department of Agriculture						
Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
			✓			• Statewide Pesticide Program (R)
			✓			• Restricted Materials Permits (R)
			✓			• Registration of Pesticide Users (R)
			✓			• Pesticide Management Zones (R)
			✓			• Environmental Monitoring (RM)
			✓			• Programs on Weed Control, Biological Pest Control, & Vertebrate Pest Control (RM)
			✓			• Hazardous Materials Program (NR)
			✓			• Agricultural Data Collection (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The County Department of Agriculture is responsible for promoting and protecting agriculture, environmental quality and the health and welfare of County citizens as well as for insuring equity in the marketplace. The goal of the Office of the County Agricultural Commissioner (CAC) in the area of water resources is to prevent adverse impacts from pesticides on standing or running water, groundwater, or fish and wildlife. Also addressed are sedimentation and nutrient issues associated with agricultural practices. Department authorities include: (1) General Plan and Framework for Planning, Agricultural and Open Space Element; (2) Land Use Ordinance; (3) Coastal Zone Land Use Ordinance; (4) California Food and Agricultural Code; (5) California Code of Regulations (particularly §§ 6404-6442 & 6800-6806); and (6) the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

II. JURISDICTION

County of San Luis Obispo

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ◆ **Statewide Pesticide Program** — (CMB General Plan & LCP) The CAC is responsible for local enforcement of this program under the direction and supervision of the Department of Pesticide Regulation (DPR). As part of the pesticide permit process, the CAC's office identifies sites where particular pesticides will be applied, collects pesticide use reports from growers, and compiles annual reports for the County. The CAC's review of permits and permit renewals considers the potential for pollution of groundwater and surface waters due to pesticide use. For example, applications for endosulfan use must document that runoff from a treated area will not move offsite into surface waters or groundwater recharge areas. Buffer zones around sites near water bodies may be required for certain chemicals (i.e., "Avid"). The permits also require backflow prevention measures if pesticides are distributed through irrigation systems.
- ◆ **Restricted Material Permits** — (Food and Agricultural Code §§ 14001-14012) The CAC issues these permits to private and commercial applicators for possession and use of certain restricted pesticides; conditions specify how restricted materials are applied.
- ◆ **Registration of Pesticide Users** — The CAC registers pest control businesses, pilots, and pesticide advisors who are licensed by DPR and provides them with information and training in the safe use of pesticides.
- ◆ **Pesticide Management Zones (PMZ)** — (Groundwater Protection Act CCR §§ 6404-6442 & 6800-6806) The CAC can restrict the use of certain pesticides within state-designated PMZs. A PMZ is an area of approximately one square mile which is particularly sensitive to groundwater pollution. Regular sampling of wells for pesticides has not yet indicated a need to designate any PMZs within San Luis Obispo County.

B. Resource Management Activities/Programs

- ◆ **Environmental Monitoring** — The CAC's office (1) conducts routine monitoring of pesticide application activities, application equipment, and storage facilities to determine compliance with State requirements for public and environmental protection; (2) cooperates with DPR in monitoring of sediment and drainage water when complaints are received which potentially involve pesticides; (3) investigates fish and wildlife kills in cooperation with DPR or the State Department of Fish and Game to determine if they are related to pesticide use.

♦ **Other Resource Management Programs**

- **Weed Control Program** — controls weeds on county and state roads.
- **Biological Pest Control Program** — coordinates research and educational resources regarding biological pest control; distributes biological agents; reduces use of pesticides.
- **Vertebrate Pest Control Program** — educates and assists agriculturists and homeowners; protects endangered species; protects public health.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Voluntary Initiatives/Incentive Programs (i.e., public and/or private efforts)

- ♦ The Department does not conduct any education programs as this is accomplished by the Cooperative Extension Service. However, CAC staff serve on a number of committees, boards, or interagency functions related to watershed planning including the following:
 - Agricultural Liaison Advisory Board -- advises Board of Supervisors on land use matters;
 - Morro Bay Watershed Planning Committee affecting agricultural operations;
 - The California Agricultural Commissioners and Sealers Association Natural Resources Protection Committee addressing the Nonpoint Source Pollution Prevention Programs;
 - San Luis Obispo County Agricultural and Open Space Element, and Grading Ordinances Planning Committees.
- ♦ **Hazardous Materials Program** — This Department program inventories and assures safe and legal disposal of agricultural chemicals pursuant to an overall Hazardous Materials Response Plan.
- ♦ **Agricultural Data Collection Program** — This program includes annual crop reports for the County, indicating total acreage, production and value for each crop; data for livestock producers and dryland farmers is included. Department staff also assist in related land use planning and emergency response activities.

IV. ADMINISTRATION

The County Department of Agriculture is under the control the County Agricultural Commission. The Commissioner is appointed by the County Board of Supervisors for a four-year term. The Commissioner may appoint deputy commissioners, and county inspectors (agricultural inspectors or biologists). For further information, contact:

County of San Luis Obispo
Department of Agriculture
2156 Sierra Way, Suite "A"
San Luis Obispo, CA 93401-4556
(805) 781-5910

*****They do not have any programs related to sedimentation (erosion control), grazing practices, irrigation/water use or any educational programs - these programs are all coming from Coop.Ext. Service.*

L8. County of San Luis Obispo

→ Department of General Services — Parks Division

Priority problems addressed (✓) *						Key programs/activities/etc.
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	(relating to the priority problems)
					✓	• Elfin Forest Resource Management Plan (approved 8/97) (RM)
						• Parks and Recreation Master Plan (NR)
					✓	• Natural Areas Plan (1992) (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

Department authorities include: General Plan and Framework for Planning (Inland), Area Plans, Land Use Ordinance, and Coastal Zone Land Use Ordinance.

II. JURISDICTION

County of San Luis Obispo. Specific parks and recreation facilities currently under County management within the Morro Bay Watershed include: several coastal accessways in Los Osos, Elfin Forest Natural Area, Morro Bay Golf Course, and the South Bay Community Park.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

- ♦ **Elfin Forest Resource Management Plan** — (“Adopt-A-Park” agreement) This plan, which was approved by the Parks and Recreation Commission in August 1997, is an internal management tool to provide options for the San Luis Obispo County Parks staff regarding a specific site (The Elfin Forest). For instance, a recommended implementing policy in the plan states “protect[ing] the Elfin Forest resources in essentially a natural state to safeguard the water quality of the bay”. The plan also recommends the coordination and

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

cooperation of such organizations as SLO County, California Department of Parks and Recreation, the California Conservation Corps, California Men's Colony and the Small Wilderness Area Preservation (SWAP). Resource protection activities in which Park staff would participate in per the plan (these are suggested activities) include coordination of all activities within the Elfin Forest, serve as a central information clearinghouse, to keep records of all use and activities within the Elfin Forest, grow plants for vegetation projects in County nursery, and construct boardwalks.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ **Parks and Recreation Master Plan (1988)** — (California Government Code § 65300 *et. seq.*) This document, which is to be incorporated into the Parks and Recreation Element of the General Plan, contains detailed data, goals and policies for general park development.
- ♦ **Natural Areas Plan (1992)** — This Plan (which is being updated in the Agricultural and Open Space Element) provides guidelines for developing site-specific management plans to maintain the delicate and sensitive biosystems at County-operated Natural Area Preserves, as well as identifies other areas prime for preservation. The County Parks and Recreation Commission must approve the management plans prior to their implementation. Examples of management plans include those listed below.
 - **Upper El Chorro Regional Park Natural Area** — Approximately 300 acres of this area, which is located north of Cuesta College, is owned by the County. Management objectives include: habitat protection and riparian restoration; trail development in the National Forest on West Cuesta Ridge; implementation of an interpretive program coordinated with County schools; grazing management where appropriate to control and protect grasslands and riparian areas; reforestation of riparian zone; and reintroduction of native species.
 - **Elfin Forest Natural Area** — This area, located in the southernmost area of the Morro Bay Estuary, is owned by the County (38.69 acres), State Department of Parks and Recreation (51 acres) and State Lands Commission (6 acres). Management objectives include habitat protection, passive recreation, and preservation of archaeological sites. (See Resource Management)
- ♦ **County Trails Plan (1991)** (to be updated in the Draft Parks and Recreation Element) — The focus of this plan is on multiple use trails with each proposed trail route evaluated with respect to opportunities for hiking, equestrians, bicycles, and handicapped access.
- ♦ **Park and Recreational Element – DRAFT** — The Parks and Recreation Element has proposed the development of several new parks such as Baywood Elementary

Neighborhood Park, Los Osos Community Park and Sports Complex (soccer and baseball fields), Skyline Drive community Park and High-Tide Aquatic Community Park-Cuesta Inlet. A Linear Park proposal is the El Morro Linear Park which would run for 0.6 miles from Baywood Elementary School to Los Osos Jr. Highschool.

IV. ADMINISTRATION

For further information, contact:

County of San Luis Obispo
Department of General Services — Parks Division
1035 Palm St., Room 460
San Luis Obispo, CA 93408
(805) 781-5200

L9. Coastal San Luis Resource Conservation District (RCD)

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓					✓	• Morro Bay Watershed Enhancement Plan (RM)
✓					✓	• Coordinated Resource Management and Planning (CRMP) Process (RM)
✓					✓	• Conservation Plan Development (NR)
✓					✓	• Workshops/Demonstration Projects (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

California's 113 Resource Conservation Districts (RCDs) are State chartered, local public agencies charged, under Division 9 of the Public Resources Code, with developing land, soil and water conservation programs in their local areas. Districts are organized as a subunit of State government, but are created by the County Boards of Supervisors. RCDs act as an independent local liaison between local landowners and the federal government.

The Coastal San Luis RCD assists land users and local government officials in achieving resource management objectives including: (1) prevention and control of soil erosion; (2) control of runoff; (3) development, distribution and conservation of water and water quality; and (4) improvement of land productivity. The Coastal San Luis RCD provides land owners and the general public with technical assistance, education programs, and development of resource management/conservation plans. As local public agencies, the RCDs are able to receive and administer grant funds from State and federal agencies and often act as the lead agency working with watershed organizations and groups to develop watershed plans, provide CEQA documentation, and implement watershed projects. The RCD receives project support and technical assistance from the federal Natural Resources Conservation Service (NRCS) (formerly the Soil Conservation Service) and State Department of Conservation.

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- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

II. JURISDICTION

The district covers 465,000 acres in coastal San Luis Obispo County, including the Morro Bay watershed. The district is abundant with agricultural and natural resources: cropland, forests, rangeland, streams, watersheds, natural habitats, lakes, estuaries, and the coastline.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

- ♦ **Morro Bay Watershed Enhancement Plan (MBWEP).** — (Public Resources Code §§ 31000 *et. seq.*) In 1987, the Coastal San Luis RCD, in partnership with the State Coastal Conservancy (SCC) and NRCS, funded and developed the MBWEP. The MBWEP evaluated alternatives to reduce sedimentation in Morro Bay, and recommended a three-phased approach to implementation. The phases are: (1) construct projects to demonstrate best management practices (BMPs) on properties in the watershed, (2) implement a floodplain restoration project on the Chorro Creek drainage (Chorro Flats), and (3) implement a complementary floodplain restoration project on the Los Osos Creek drainage. The SCC provided a grant of \$410,000 to the RCD to implement the first phase of the MBWEP which resulted in 20 watershed BMP demonstration projects. Projects include:
 1. **Chorro Flats Acquisition and Enhancement Project** — (Public Resources Code §§ 31000 *et. seq.* / P.R.C.-Division 9) This Coastal San Luis RCD-led project is designed to convert a 129-acre agricultural field to natural floodplain (retaining about 40 acres in agricultural production), restore riparian habitat, and provide a sediment deposition area above Morro Bay. The RCD acquired the Chorro Flats property from a private landowner in 1990 with help from a \$1,400,000 grant from the SCC. The SCC has also provided \$200,000 for final planning and a \$500,000 grant for project implementation.
 2. **Los Osos Creek Conservation Easement Acquisition and Enhancement Project** — (Public Resources Code §§ 31000 *et. seq.* / P.R.C.-Division 9) The Coastal San Luis RCD, SCC and NRCS purchased a wetlands conservation easement over approximately 111 acres of former agricultural property at the confluence of Los Osos, Warden and Turri Road Creeks and restored wetland habitat in the wetland easement area and to serve as a passive sediment trap.
- ♦ **Coordinated Resource Management and Planning (CRMP) Process** — The CRMP process is a form of community-based resource planning that attempts to bring together local RCDs and interested parties to identify resource problems, organize information and develop recommended programs and plans to better manage their resources. This process

has not been implemented in the Morro Bay Watershed to date, but could be effective in the future to help achieve BMPs in the watershed.

C. Finance Mechanisms

- ♦ **General Information** — The Coastal San Luis RCD has many financial responsibilities throughout the region. Among its duties, the RCD (1) administers federal funds for the purpose of developing the Morro Bay State Estuary Management Plan; (2) administers grants for cost-sharing of BMPs and has assisted in the acquisition of wetland easements (e.g., on the Martines Property in the Morro Bay watershed); (3) funds both an administrative coordinator for the Morro Bay Watershed Council and a project leader for NRCS; and (4) has co-sponsored annual field tours of landowner BMP demonstration projects on the MBWEP.

D. Other Non-Regulatory Programs

- ♦ **Conservation Plan Development** — The RCD works in cooperation with NRCS technical staff to help land managers develop Conservation Plans. These plans are designed to permit the highest and best agricultural use of land without degrading the soil and water resources and are taking place through the identification of “on-the-ground” projects that would demonstrate BMPs, encouraging of land owners to develop Conservation Plans, and funding for implementation of these plans.
- ♦ **Workshops/Demonstration Projects** — The RCD sponsors workshops and demonstration projects to ensure greater use of agricultural BMPs.

IV. ADMINISTRATION

The Directors of the Coastal San Luis RCD are elected by district voters or appointed by the San Luis Obispo County Board of Supervisors. The Board of Directors can make legal agreements with county, State, and federal governments for work in the district. Associate Directors may be appointed by the RCD to assist in special areas of interest. Consultants and other individuals with special expertise may be called upon to achieve stated goals.

The **California Association of Resource Conservation Districts (CARCD)** maintains the California Resource Conservation Fund and promotes the cooperation of RCDs with federal, State, county and municipal officials. State and district representatives are also associated with the federal government through the **National Association of Conservation Districts (NACD)**.

For further information, contact:

Coastal San Luis Resource Conservation District
545 Main Street, Suite B-1
Morro Bay, CA 93442
(805) 772-4391

See also CARCD home page @ <http://ceres.ca.gov/carcd>

See also NACD home page @ <http://www.nacdnet.org>

Secondary Agencies:

→ L10. City of Morro Bay --- Recreation and Parks Department						
Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
						• Recreation and Facility Plan
✓					✓	• Access and Recreation Element

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The City of Morro Bay Recreation and Parks Department manages the City's park lands and recreational facilities and provides recreational programs and services to the Estero Bay Community.

II. JURISDICTION

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

Staff of the Recreation and Parks administer and implement the Tidelands Park Master Plan as well as the Parks and Recreation Facility Plan and Access and Recreation Element. These plans discuss the current and future needs of the community.

C. Finance Mechanisms

This agency does not implement any finance mechanisms.

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- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

D. Other Non-Regulatory Programs

The Access and Recreation Element as well as the Facility Plan are slated for updates within the next two years.

IV. ADMINISTRATION

The Morro Bay City Council appoints members to serve on the Recreation and Parks Commission. The Commission approves plans and makes decisions based upon Department staff recommendations. The Department receives funding through city general funds, grants and assessment district revenues.

For further information, contact:

Department of Parks and Recreation
1001 Kennedy Way
Morro Bay, CA 93442
(805) 772-6282

L11 . Air Pollution Control District (APCD) of San Luis Obispo County

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
						• Permitting ®
						• Clean Air Planning (RM)
					✓	• Motor Vehicle Reduction Funding (FM)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES/II. JURISDICTION

The APCD is the regional agency responsible for the preservation and maintenance of healthful air quality throughout San Luis Obispo County. Its mission is to realize and preserve clean air, to promote community and individual responsibility for air quality through education, and to provide efficient and cost-effective service. The **Air Pollution Control Board** is the decision-making body for the APCD. Board membership includes the five County Supervisors and one city council member from each of the seven incorporated cities in the county. The Board adopts rules, sets policies, and provides direction on important air quality issues that affect the County. APCD program authorities include the California Health & Safety Code and Federal Clean Air Act.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory mechanisms)**A. Regulatory Activity/Programs**

- ◆ **Permitting** -- The APCD issues permits pursuant to its authority to achieve air quality standards set by the U.S. EPA and the California Air Resources Board. For example, an **Authority to Construct Permit** is required for construction of new facilities and installation or modification of equipment at existing facilities. This permit ensures that the equipment is designed, constructed, and operated to meet local, State and federal requirements. In addition, a **Permit to Operate** allows ongoing operations in accordance with all permit conditions and local, State, and federal requirements.

B. Resource Management Activity/Programs

- ◆ **Clean Air Plan** -- The **Clean Air Plan (CAP)** prepared by the APCD is a comprehensive planning document that examines: (1) current and historical trends in air quality; (2) sources of emissions that contribute to air quality standard violations; (3) projections of

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- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

future air quality based on expected population and economic growth; and (4) control strategies to achieve and maintain clean air. The CAP, which is updated every three years, provides guidance to the APCD as to how to control emissions from all sources to assure that State and Federal ambient air quality standards are achieved and maintained. A schedule for implementing recommended strategies is also provided.

C. Finance Mechanisms

- ◆ **Motor Vehicle Reduction Funding** -- The APCD administers several financial and educational programs. For example, the APCD's **Motor Vehicle Reduction Funding** program provides funding for local agencies to reduce motor vehicle air emissions. In 1997, the APCD awarded \$19,000 to the Santa Ysabel Street Traffic Calming Association in Los Osos for its traffic calming measures. APCD staff are also available to give presentations to schools and community organizations.

D. Other Non-Regulatory Programs

This agency does not implement other non-regulatory programs.

For further information, contact:

County of San Luis Obispo Air Pollution Control District
3433 Roberto Court
San Luis Obispo, CA 93401
(805) 781-5912 or 781-4247
<http://www.sloapcd.dst.ca.us>

L12. San Luis Obispo County Council of Governments (SLOCOG)

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
			✓		✓	• Regional Surface Transportation Program (F)
			✓		✓	• Transportation Enhancement Activity (F)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

SLOCOG serves as a forum for planning and discussion of area wide issues, preparing regional plans and programs, serving as a regional agency for federal and state programs, and addressing other areawide issues as mutually desired. SLOCOG is the designated Regional Transportation Planning Agency (which is responsible for state planning and transit allocations) and the designated Metropolitan Planning Organization (which is responsible for federal planning and programming of transportation funds).

II. FUNCTIONS**A. Regulatory Activities/Programs**

This agency does not implement any regulatory activities or programs.

B. Resource Management

This agency does not implement any resource management activities or programs.

C. Finance Mechanisms

SLOCOG awards funds throughout the region. In the last five years, SLOCOG has awarded funds to the following projects within the Morro Bay watershed: the Los Osos Elfin Forest Gateway Interpretive Site, and the Pavement Management System Program, Inventory, Assessment & Computer. SLOCOG receives its funding from local, State, and federal funds and grants. Funding sources include: local transportation funds, local gas taxes, developer and

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- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

vehicle registration fees, State Environmental Enhancement & Mitigation grants, and federal grants. Examples of federal grants include:

- ◆ **Regional Surface Transportation Program (RSTP)** Types of projects eligible for funds include such activities as construction, reconstruction, rehabilitation, resurfacing, restoration and operational improvements for highways and bridges, and participation in wetlands mitigation efforts.
- ◆ **Transportation Enhancement Activity (TEA) Program** -- Projects must have a direct relationship to the intermodal transportation system by function, proximity or impact. Also, projects must be over and above the required project environmental mitigation and fall within several (ten) categories of which include acquisition of scenic easements and scenic or historic sites, landscaping and other scenic beautification, and mitigation of water pollution due to highway runoff.

D. Other Non-Regulatory Programs

This agency does not implement any other non-regulatory activities or programs.

III. ADMINISTRATION

The governing board consists of 12 delegates: five members of the County Board of Supervisors, and one representative from each of the seven cities in the region, including the City of Morro Bay.

For further information, contact:

San Luis Obispo Area Coordinating Council
Regional Transportation Planning Agency
County Government Center
San Luis Obispo, CA 93408
(805) 781-5714

2.2 STATE AGENCIES

Primary Agencies Involved In Protection Of The Morro Bay Estuary

- S1. California Coastal Commission (CCC), Resources Agency -- Page 57
- S2. Department of Fish and Game (DFG), Resources Agency -- Page 63
- S3. Department of Fish and Game, Office of Oil Spill Prevention and Response (OSPR), Resources Agency -- Page 69
- S4. Department of Health Services (DHS), Health & Welfare Agency -- Page 75
- S5. Department of Pesticide Regulation (DPR), Cal/EPA -- Page 80
- S6. Regional Water Quality Control Board (RWQCB), Cal/EPA -- Page 85
- S7. State Coastal Conservancy (SCC), Resources Agency -- Page 98
- S8. State Lands Commission (SLC) -- Page 103
- S9. State Water Resources Control Board (SWRCB), Cal/EPA -- Page 106

Secondary Agencies

- S10. California Conservation Corps, Resources Agency -- Page 116
- S11. California Integrated Waste Management Board (CIWMB), Cal/EPA -- Page 118
- S12. California National Guard—Camp San Luis Obispo, Military Department -- Page 121
- S13. Department of Boating and Waterways (DBW), Resources Agency -- Page 124
- S14. Department of Conservation (DOC), Resources Agency -- Page 127
- S15. Department of Forestry and Fire Prevention (CDF), Resources Agency -- Page 130
- S16. Department of Parks and Recreation (DP&R), Resources Agency -- Page 133
- S17. Department of Toxic Substances Control, Cal/EPA -- Page 135
- S18. Department of Transportation (Caltrans), Business, Transportation & Housing Agency -- Page 139
- S19. Department of Water Resources (DWR), Resources Agency -- Page 141
- S20. Office of Environmental Health Hazard Assessment (OEHHA), Cal/EPA -- Page 144
- S21. University of California, Cooperative Extension Service (U.C. Extension) -- Page 145

S1. California Coastal Commission (CCC), Resources Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓	✓	• Local Coastal Planning (R)
✓	✓	✓	✓	✓	✓	• Coastal Development Permits (R)
✓	✓	✓	✓	✓	✓	• Federal Consistency (R)
						• California Environmental Quality Act (R)
✓	✓	✓	✓	✓	✓	• Coastal Nonpoint Pollution Control Program (RM)
						• License Plate Funds (F)
						• Volunteer Programs (including Adopt-A-Beach and Coastal Cleanup Day) (NR)
✓	✓	✓	✓		✓	• Model Urban Runoff Program (NR)
						• Conservation Education Program (NR)
						• Boating Clean and Green Campaign (NR)
						• California Clean Boating Network (NR)
			✓		✓	• Joint CCC/BCDC Oil Spill Program (NR)
						• Local Coastal Planning (NR)
						• Coastal Mapping Program (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The mission of the California Coastal Management Program® (Ca.Coastal MP) administered by the Coastal Commission is based on the mandates of the California Coastal Act of 1976. This mission is to protect, conserve, restore, and enhance environmental/human-based resources of the California coast and ocean for environmentally sustainable and prudent use by current and future generations. CCC program authorities include the Public Resources Code (P.R.C.) §§ 30000 *et seq.* (the Coastal Act), California Code of Regulations, Title 14, §§ 13000 *et seq.*, the Lempert-

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

® Reference made to the California Coastal Management Program in this inventory will be abbreviated as (Ca. Coastal MP). This will be done to prevent confusion with a like acronym used by NEP, the Comprehensive Conservation Management Plan (CCMP).

Keene-Seastrand Oil Spill Prevention and Response Act of 1990 (Cal. Government Code §§ 8670.28 *et seq.*), the Ca.Coastal MP, and the Federal Coastal Zone Management Act (CZMA).

II. JURISDICTION

The CCC's geographic jurisdiction is the coastal zone, a specifically mapped land and water area of the State. Stretching 1,100 air miles from Oregon to the Mexican border, the coastal zone extends seaward three nautical miles, while its landward boundary varies. In rural and generally undeveloped areas—including significant estuarine, habitat, and recreational areas—the coastal zone extends as much as five miles inland from tidally-influenced bodies of water. In developed urban areas, the boundary is as little as a few hundred feet. The CCC's jurisdiction does not extend into or around San Francisco Bay, where development is regulated by the San Francisco Bay Conservation and Development Commission (BCDC). The CCC also has review authority over federal activities or federally licensed or funded activities, whether inside or outside the coastal zone, that may affect land or water uses or natural resources of the coastal zone.

III. FUNCTIONS (regulatory, resource management, finance, and other non-regulatory)

California's coastal management program is a multi-disciplinary Statewide program, based on public participation, partnerships with local governments, and strong coastal and ocean ("coastal") resource protection policies. The California Coastal Act provides a comprehensive planning approach that integrates regulatory activities, long-range planning, and education efforts in order to preserve, protect and enhance coastal resources and public access to beaches and the ocean. The CCC's basic goals for coastal management, expressed in Coastal Act § 30001.5, are: (1) to protect, maintain, and where feasible enhance and restore the overall quality of the coastal environment and its natural and manmade resources; (2) to assure orderly, balanced use, and conservation of coastal resources taking into account the social and economic needs of the people of the State; (3) to maximize public access to and along the shoreline and maximize public recreational opportunities in the coastal zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners; (4) to assure priority for coastal-dependent development over other development on the coast; and (5) to encourage State-local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including education uses, in the coastal zone.

A. Regulatory Activities/Programs

- ♦ **Local Coastal Planning** — The Coastal Act directs each of the 73 cities and counties in the coastal zone to prepare, for CCC review and certification, an LCP for the local government's portion of the coastal zone. An LCP includes a land use plan (LUP), zoning ordinances, zoning maps, and other legal instruments necessary to implement the LCP in a manner that implements the Coastal Act at the local level. Certified LUPs and LCPs may be amended by local governments, but the amendments do not become effective until approved by the CCC.
- ♦ **Coastal Development Permits (CDPs)** — Subject to minor exceptions [i.e., Coastal Act §

30610 (CDP exemptions) and § 30624.7 (de minimis waivers)], any development¹ in the coastal zone requires a CDP issued either by the CCC or a local government to which this authority has been delegated. In the Morro Bay coastal zone, the City of Morro Bay and the County of San Luis Obispo issue CDPs in their respective jurisdictions pursuant to their CCC-certified Local Coastal Programs (LCPs). The CCC (1) reviews CDP applications for proposed development within its jurisdiction (the CCC retains jurisdiction over specific lands such as tidelands, submerged lands, and public trust lands); (2) retains authority to determine appeals of certain locally-issued CDPs; and (3) enforces, through its Statewide Enforcement Program, Coastal Act provisions throughout the coastal zone before and after an LCP is certified. For the latter, the CCC's authority is concurrent with that of local government.

- ♦ **Federal Consistency** — Under the “federal consistency” provisions of CZMA § 307(c) [16 U.S.C. § 1456(c)] and federal regulations (Title 15, C.F.R. Part 930), the CCC has review authority over federal activities or federally licensed or funded activities that affect the coastal zone. This process gives the State the ability to work with federal agencies to ensure that projects which affect the coastal zone are consistent with the Ca.Coastal MP. Procedures for federal consistency reviews differ according to the type of federal agency involvement. For example, an applicant for a federal permit that affects land or water uses or natural resources of the coastal zone, whether inside or outside the coastal zone, must certify that the activity will be conducted in a manner consistent with the Ca.Coastal MP; based on Ca.Coastal MP provisions, the CCC may concur with or object to this certification of consistency. Other forms the federal consistency process may take include reviews of activities affecting the coastal zone proposed by a federal agency, and applications for federal finance assistance to State and local governments.
- ♦ **California Environmental Quality Act (CEQA)** — The CCC participates in procedures under the CEQA primarily as a Responsible Agency by reviewing the Lead Agency's findings. In other instances, the CCC acts as the CEQA Lead Agency (e.g., for LCP certification matters or for projects proposed in the CCC's original permit jurisdiction where the CCC is the only agency with discretionary permit review authority over the project). In these cases, the CCC's responsibilities under the CEQA are normally met through the CDP or the LCP-certification processes as described in the CCC's regulations. In other cases, such as review of categorical exemptions, the CCC's Lead Agency responsibilities are those required of all Lead Agencies (i.e., preparation of Negative Declarations/Environmental Impact Reports).

B. Resource Management Activities/Programs

- ♦ **Coastal Nonpoint Pollution Control Program (CNPCP)** — Section 6217 of the Coastal

¹ Coastal Act § 30106 defines “development” as “on land, in or under water the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in density or intensity of use of land...; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan”

Zone Act Reauthorization Amendments of 1990 requires California, through a partnership between the CCC and the State Water Resources Control Board (SWRCB), to develop and implement a CNPCP. In its CNPCP, California must (1) show how it will implement, through enforceable policies or mechanisms, management measures to control nonpoint source pollution; (2) identify land uses which individually or cumulatively may cause or contribute significantly to a degradation of coastal waters; (3) identify critical coastal areas (watersheds of threatened or impaired waters), and identify and implement additional measures as needed to achieve and maintain water quality standards in these areas; (4) provide opportunities for public participation in CNPCP development and implementation; (5) demonstrate how interagency coordination will be improved and assured; (6) provide technical assistance to local governments and the public, and (7) monitor management measure implementation. In 1995, the SWRCB and CCC submitted California's CNPCP to EPA and NOAA. In 1998, EPA and NOAA conditionally approved the CNPCP; pursuant to this approval, the SWRCB and CCC are developing a comprehensive 15-year CNPCP Implementation Strategy and three related five-year Action Plans. In conjunction with the CNPCP, the CCC has published and distributed to local governments a guidance manual on managing nonpoint source pollution.

C. Finance Mechanisms

- ◆ Proceeds from public purchases of the Coastal Protection ("Whale-Tail") License Plate support a variety of coastal protection and improvement activities. Half of the plate's fees go to the CCC's Adopt-A-Beach Program or to support State Coastal Conservancy (SCC) beach improvement and habitat restoration projects; the balance goes into the **Environmental License Plate fund** to support habitat and park acquisition projects.
- ◆ The CCC is designated under the CCMP as the State agency to receive and pass through federal funds to the SCC and BCDC.

D. Other Non-Regulatory Programs

- ◆ **Adopt-A-Beach** — To date, more than 10,000 volunteers from over 500 groups have participated in this year-round program of beach and waterway cleanups. When a group or school adopts a beach, its members commit to clean up the beach at least one to three times annually.
- ◆ **Coastal Cleanup Day** — Coastal Cleanup Day, which is usually held on a Saturday in September, is the Statewide annual shoreline cleanup in which all Californians can participate.
- ◆ **Model Urban Runoff Program** — This program is designed to assist cities and counties that have not had to develop storm water programs pursuant to the NPDES urban storm water program. Generally these are communities under 100,000 in population or that are not part of county-wide NPDES permits (such as those that cover the southern coastal counties). The Cities of Monterey and Santa Cruz are the project lead agencies, assisted by the CCC, the Association of Monterey Bay Area Governments, and the Monterey Bay National Marine

Sanctuary. The project will result in a comprehensive package of planning and zoning tools that can be distributed Statewide for use by local governments working to improve their control of runoff. This package will include (1) internal coordinating mechanisms between local agencies (planning and public works departments), (2) recommended improvements to local CEQA guidelines, and (3) a model public education program for urban runoff and other watershed issues. The package will be presented to the SWRCB where it should also be useful in implementing NPDES storm water programs for larger cities and counties.

- ♦ **Conservation Education Program** — Programs conducted by the CCC's public education staff are designed to promote conservation awareness, recycling, and litter abatement efforts through community involvement and environmental education. Program staff provide materials related to the protection and enhancement of the coastal and marine environment, and coordinate (in coordination with other entities such as the Center for Marine Conservation and California Parks Foundation) the Adopt-A-Beach program and Save Our Seas curriculum.
- ♦ **Boating Clean and Green Campaign** — This three-year (1997-2000) Statewide campaign will (1) facilitate installation of new services at marinas to help boaters prevent emissions of oil and other pollutants into State waters, and (2) educate boaters to use these services and other practices that reduce the pollution associated with boating.
- ♦ **California Clean Boating Network (CCBN)** — As a participant in the CCBN, CCC staff have conducted public outreach, developed a binder that includes exemplary education products that address pollutants associated with marina and boater activity, and distributed more than 300 copies of the binders to marinas and other users of the marine environment.
- ♦ **Other Activities/Programs** — The **Coastal Resources Information Center (CRIC)** is a central information center and clearinghouse for information relating to the coast. The CCC also publishes and revises the *Coastal Access Guide* and the *Coastal Resource Guide*.
- ♦ **Joint CCC/BCDC Oil Spill Program** — Under the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990, this Joint Program was created to prevent and respond to oil spill related matters along the coast and in San Francisco Bay. In coordination with OSPR and other agencies, program staff help to implement the State's oil spill prevention and response program. Responsibilities include: (1) review facility and vessel oil spill contingency plans (e.g., the plan for PG&E's Morro Bay power plant); (2) participate in the U.S. Coast Guard (USCG) Area Contingency Planning processes to improve regional preparedness for oil spill response; (3) participate in the five Harbor Safety Committees formed to improve vessel safety in major ports/harbors; (4) review State and federal regulations related to oil spill prevention and response; (5) participate in Statewide committees/taskforces to improve oil spill prevention and response technologies and operational procedures; (6) participate in the design, planning, construction, and preparation of oiled wildlife rehabilitation stations; and (7) participate in federal, State, and industry working groups to improve vessel navigation safety and routing measures. The CCC Executive Director (or designee) is a member of the State Interagency Oil Spill Committee (SIOSC) and SIOSC Review Subcommittee. Program staff also participate on the Volunteer

Subcommittee of the USCG Area Contingency Planning process. This Subcommittee initiated a network to coordinate volunteer workers Statewide in response, containment, restoration, and cleanup efforts for oil spills in marine waters.

- ♦ **Local Coastal Planning** — Program activities include: planning and resource management within the context of LCP certification and review; establishment to the extent possible of urban-rural boundaries; and direction of new development into areas with adequate services to avoid wasteful urban sprawl and leapfrog development. (See also Section A-1 above.)
- ♦ **Coastal Mapping Program** — The CCC Mapping Unit conducts activities that support and enhance the CCC's planning, regulatory, and enforcement work. Activities include: providing geographic analysis and producing thematic maps required for normal agency operation; responding to coastal zone boundary determination and information requests; and acquiring coastal aerial photography and digital data for geographic information systems (GISs).

IV. ADMINISTRATION

The CCC is an independent entity of 16 members, 12 voting and four nonvoting. The Governor, Senate Rules Committee, and Speaker of the Assembly (with confirmation of the Assembly Rules Committee) each appoints two members representative of the public at large and two locally elected officials representative of the local governments in each of six coastal regions as specified in the Coastal Act (i.e., county supervisors or city councilors). The four non-voting members are: Secretary for Resources; Secretary for Business, Transportation, and Housing; Secretary for Trade & Commerce; and Chairperson of the State Lands Commission. Each Commissioner serves a two-year term and may be reappointed or replaced at any time. The CCC holds public meetings each month where the Commissioners take public testimony and make permit, planning, and policy decisions to implement the Coastal Act. The CCC is administered by a director who is subject to confirmation by the Commissioners. The CCC staff headquarters is in San Francisco; area offices are located in San Francisco, Santa Cruz, Ventura, Long Beach and San Diego. The Central Coast Area office in Santa Cruz includes coverage of the Morro Bay area.

For further information, contact:

California Coastal Commission
Central Coast Area Office
725 Front St., Suite 300
Santa Cruz, CA 95060-4508
(408) 427-4863

California Coastal Commission
45 Fremont St., Suite 2000
San Francisco, CA 94105-2219
(415) 904-5200
<http://www.ceres.ca.gov/coastalcomm/index.html>

S2. California Department of Fish and Game (DFG), Resources Agency (includes Fish and Game Commission & Wildlife Conservation Board)

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓				✓	✓	• Lake or Streambed Alteration Agreements (R)
✓	✓	✓	✓			• Water Pollution Control (R)
				✓	✓	• Dredging Permits (R)
				✓	✓	• Take of Fish and Wildlife (R)
				✓	✓	• Threatened and Endangered Species (R)*
✓	✓	✓	✓	✓	✓	• California Environmental Quality Act (R)
				✓	✓	• Fish and Game Code § 1348 (R)
					✓	• Ocean & Coastal Area Management (RM)
					✓	• Fisheries Management (RM)
			✓			• State Mussel Watch & Toxic Substances Monitoring Programs (RM)
					✓	• Natural Diversity Database (RM)
			✓			• Pesticide Registration and Evaluation Committee (RM)
					✓	• Riparian Habitat Conservation Program (F)
					✓	• Natural Community Conservation Plans (NR)
					✓	• Biodiversity Council (NR)
✓	✓	✓	✓	✓	✓	• NRCS CRMP Process (NR)
				✓	✓	• Project WILD (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

I. MISSION AND AUTHORITIES

As a trustee agency for the State's resources, DFG manages California's diverse fish, wildlife and plant resources and the habitats upon which they depend, for their ecological values and for public use and enjoyment. Responsibilities related to the protection, preservation, and enhancement of fish and wildlife resources and their habitats include the regulation of activities such as grading, filling, and dredging in State waters or streambeds, thereby controlling sedimentation, erosion and pollutant discharge into streams. Program authorities include: California Fish & Game Code (F&GC) §§ 1 *et seq.* [e.g., Native Plant Protection Act, California Endangered Species Act, Fish and Wildlife Habitat Enhancement Act, and Natural Community Conservation Planning Act], Government Code §§ 11150 *et seq.*, and California Code of Regulations, Title 14, §§ 1600 *et seq.*

II. JURISDICTION

DFG jurisdiction is Statewide. The agency is divided into five regions; Region 3 includes San Luis Obispo County. In the Morro Bay watershed, DFG manages the Morro Rock Ecological Reserve and coordinates leases of Bay underwater areas for aquaculture.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ♦ **Lake or Streambed Alteration Agreements** — DFG requires a public agency or private party to obtain a Lake/Streambed Alteration Agreement for any activity that will (a) divert or obstruct the natural flow of or change the bed, channel, or bank of any river, stream or lake, or (b) use material from a streambed. Based on information submitted in an application and a possible field inspection, DFG reviews the proposed activities and suggests measures to protect fish and wildlife. Measures that are acceptable to the project proponent become part of an enforceable agreement; if agreement cannot be reached on the proposed measures, the matter may be referred to binding arbitration.
- ♦ **Water Pollution Control** — F&GC § 5650 makes it unlawful to discharge into State waters, or to permit to pass into State waters any substance or material that is deleterious to fish, plant life, or bird life. This section and other water pollution control sections of the Fish and Game Code are enforced by DFG wardens. DFG staff also report chronic (sublethal, long-term) water pollution conditions to the appropriate RWQCB, and cooperate in obtaining corrections or abatements to the condition. DFG wardens and other law enforcement officers also enforce a prohibition against the deposit in or adjacent to State waters of any cans, bottles, garbage, motor vehicles or vehicle parts, rubbish, dead mammals, or dead birds.
- ♦ **Dredging Permits** — DFG has several regulatory and enforcement mechanisms to protect fish and wildlife from potential adverse effects of dredging. Pursuant to F&GC § 5653, an application for a permit must be submitted to DFG prior to the use of vacuum or suction dredge equipment in any State river, stream, or lake. DFG issues a permit if it determines that project operations will not be deleterious to fish. DFG also designates (a) "open" waters/areas

wherein the dredging equipment may be used pursuant to a permit, (b) waters or areas closed to the dredges, (c) the maximum size of the dredges that may be used, and (d) the time of year when the dredges may be used.

- ♦ **Take of Fish and Wildlife** — DFG regulates and enforces the “take” of fish and wildlife through prescribed seasons, other fishing/hunting/trapping regulations and laws, and other methods established by the Fish and Game Commission. Agencies must consult with DFG concerning projects that might affect fish and wildlife resources and their habitat. For example, the State Water Resources Control Board (SWRCB) must notify DFG of all applications to appropriate water. DFG then must recommend the amount of water, if any, required to preserve and enhance fish and wildlife. In the Morro Bay watershed, DFG requires by agreement that at least 0.75 cubic feet per second of a RWQCB-permitted discharge into Chorro Creek by the California Men’s Colony must remain in the Creek to support fish. DFG staff review a variety of other documents for land and water projects, including: Environmental Impact Reports/Statements; Coastal Development Permits; Regional Water Quality Control Board (RWQCB) NPDES permits and Waste Discharge Requirements; State Lands Commission leases and permits; Timber Harvest Plans; State and federal water resource development projects; and U.S. Army Corps of Engineers Section 10 and Section 404 permits. If necessary, DFG staff provide recommendations to prevent or mitigate adverse impacts upon fish and wildlife and their habitats.
- ♦ **Threatened and Endangered Species** — The Fish and Game Commission makes decisions to list rare, threatened and endangered species under the California Endangered Species Act (CESA). DFG protects listed threatened and endangered species by prohibiting their take, except as specifically provided, and by protecting significant natural areas. In doing so, DFG may prepare permits or Memoranda of Understanding to avoid, mitigate, or compensate for impacts which may threaten such species. Pursuant to the CESA, a State land agency must consult with DFG to determine whether a project is likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of the species. DFG staff also (1) coordinate CESA review and comment efforts with the U.S. Fish and Wildlife Service and National Marine Fisheries Service; (2) maintain inventories of, and prepare an annual status report on, all listed species; and (3) interpret natural diversity for citizens.

The Endangered Species Unit in DFG’s Environmental Services Division coordinates State agency consultation and issuance of take permits and management authorizations under CESA. Overall ecosystem planning and protection, and endangered plants, are the responsibility of the agency’s Natural Heritage Division. Listed birds and non-marine mammals are under the jurisdiction of the Wildlife Management Division. Listed invertebrates, fishes, amphibians and reptiles are the responsibility of the Inland Fisheries Division. The Guadalupe fur seal and sea otter are under the jurisdiction of the Marine Resources Division.

- ♦ **California Environmental Quality Act (CEQA)** — Depending on the project, DFG participates in CEQA either as a Lead Agency (e.g., for artificial reef or aquaculture projects) or as a Responsible Agency. Pursuant to CEQA Guidelines § 15251(b), the Secretary of

Resources has certified that the regulatory program of the Fish and Game Commission pursuant to the Fish and Game Code meets the requirements of CEQA § 21080.5.

- ♦ **Fish and Game Code § 1348** -- Provides for acquisition of water rights for wildlife conservation purposes among other things.

B. Resource Management Activities/Programs

- ♦ **Ocean and Coastal Area Management** — Statewide, DFG manages 821,017 acres of land, including 103 Wildlife Areas (17 marine/coastal sites), 99 Ecological Reserves (22 marine/coastal sites) including the **Morro Rock Ecological Reserve**, and other public lands including 166 public access sites (41 marine/coastal sites). Many of these areas have extensive natural wetland habitats. The intent of this designation is: (1) to protect threatened or endangered native plants, wildlife, aquatic organisms, specialized terrestrial and aquatic habitat types, or large heterogeneous natural marine gene pools; (2) to preserve the area in a natural conditions or to provide some level of protection for the benefit of the general public to observe native flora and fauna and for scientific study or research (3) to provide scientific research related to the management and enhancement of marine resources.
- ♦ **Fisheries Management** — DFG promotes and enhances recreational fishing opportunities and fisheries habitat by managing sportsfishing activities and fish hatcheries, construction of artificial reefs, and restoration of wetlands, kelp beds, and other biological resources. DFG conducts a hatchery program for the production and planting of some 60 million fish each year, carries out habitat restoration projects, and conducts surveys and research.
- ♦ **State Mussel Watch Program** — DFG conducts the Mussel Watch Program for the SWRCB. Mussels are collected along the California coastline, including in Morro Bay, and are analyzed for various toxic pollutants (e.g., organic compounds and metals). Results are reported to the SWRCB on an annual basis.
- ♦ **Toxic Substances Monitoring Program** — In cooperation with the SWRCB, DFG investigates levels of toxins in fish collected from the Morro Bay watershed.
- ♦ **Natural Diversity Database/Mapping Program** — DFG biologists and botanists conduct studies, surveys, and censuses annually to assess the State's fish, wildlife, and habitat resources. Data are managed through the Natural Diversity Database, which has more than 30,000 records on sensitive native plants and animals, and a state-of-the-art Geographic Information Services mapping system.
- ♦ **Pesticide Registration and Evaluation Committee** — DFG participates on this interagency coordinating committee administered by DPR. The committee reviews, reevaluates, and proposes pesticide regulation.

C. Finance Mechanisms

- ♦ **The Riparian Habitat Conservation Program**, administered by the Wildlife Conservation Board, provides grants and loans to public agencies and nonprofits. Program priorities include acquisition and restoration of riparian habitat throughout California. The Board has

provided a grant to the Natural Resources Conservation Service (NRCS) to implement instream restoration measures on Chorro Creek within the California National Guard's Camp San Luis Obispo property.

D. Other Non-Regulatory Programs

- ♦ **Natural Community Conservation Plans (NCCPs)** — A primary goal of the Natural Community Conservation Planning Act (NCCPA) [F&GC §§ 2800 et seq.], enacted in 1991, is to “conserve long-term viable populations of California’s native animal and plant species and their habitats in areas large enough to ensure their continued existence,” while at the same time allowing for “compatible and appropriate” urban growth and economic development. The NCCPA permits DFG to enter into an agreement with any person or entity to prepare and implement a NCCP. An NCCP identifies areas appropriate for regional protection and perpetuation of natural wildlife diversity as well as areas compatible with urban development, and sets forth comprehensive guidelines for conserving and managing the multiple wildlife species residing in the identified reserve areas, particularly candidate species for listing under the State or federal Endangered Species Acts. The California Resources Agency, DFG, other State and federal agencies, and the Yurok Indian Tribe are developing a new NCCP program dubbed the “Coastal Salmon Natural System Initiative.” DFG and the Resources Agency are also implementing a pilot planning program under the NCCPA to preserve coastal sage scrub habitat in southern California.
- ♦ **Biodiversity Council** — DFG is one of 10 State agencies/entities, seven federal agencies, and eight representatives from regional government associations (including the Central Coast Regional Association of County Supervisors) that have signed a Statewide Memorandum of Understanding (MOU) entitled “California’s Coordinated Regional Strategy to Conserve Biodiversity.” The MOU established a Statewide Biodiversity Executive Council that meets quarterly in public. The Council’s primary purpose is to develop a Statewide Biodiversity protection strategy by setting Statewide goals and recommending consistent standards and guidelines for biodiversity protection.
- ♦ **NRCS Coordinated Resource Management and Planning (CRMP) Process** — DFG is one of 15 entities that have signed a Statewide MOU supporting the CRMP process. Support from the signatory agencies consists of planning, regulation, outreach, technology transfer, implementation, finance assistance, research, and/or monitoring. The concept underlying CRMP, which operates on a local level, is that coordinating resource uses can result in improved resource management and minimizes conflict among land users, landowners, governmental agencies, and interest groups.
- ♦ **Project WILD** is a nationwide environmental education program. In California, DFG provides training to workshop leaders or facilitators who conduct teacher workshops. They in turn teach K-12 students in their classrooms, clubs, or organizations.
- ♦ DFG docents lead tours and conduct public education programs, surveys, restoration work, and other wildlife protection activities on DFG lands.
- ♦ DFG conducts a wide-ranging stream and watershed planning and restoration program to

maintain and rehabilitate aquatic and riparian habitats. The program stresses public participation and interagency cooperation. Approximately 1,500 projects have been completed over the past decade.

IV. ADMINISTRATION

DFG is administered by a Director who is appointed by the Governor. The Director is responsible to the Commission for the administration of the DFG in accordance with the policies set by the Commission (F&GC §§ 700-703). DFG operates out of a headquarters office and five regional offices.

The **Fish and Game Commission** has five members that are appointed by the Governor to six-year terms. The Commission sets general policies for the DFG. For example, the Commission is responsible for adding species to, and removing species from, the California endangered and threatened species lists and changing species' status from endangered to threatened and vice versa. The Commission, with advice from the DFG, sets ocean fishing regulations within State waters, consistent with fishery plans developed by the Pacific Fishery Management Council. The Commission also regulates inland fishing, except for Native American fishing on reservation lands (this latter activity is under jurisdiction of the U.S. Bureau of Indian Affairs).

The **Wildlife Conservation Board**, a separate legal entity within the DFG, is the real estate arm of DFG. The Board investigates areas to determine their suitability for wildlife production and preservation, and authorizes and provides funding for land acquisition, development, and restoration projects. The Board also develops recreation facilities and public access to natural resource areas, and works closely with DFG to coordinate spending of Water, Parks, and Wildlife Bond (Proposition 70) funds.

For further information, contact:

DFG Regional Addresses include:

- **Central Coast Region (Region 3)**
P.O. Box 47
Yountville, CA 94599
(707) 944-5500
- **Marine Resources Division**
213 Beach Street
Morro Bay, CA 93442
(805) 772-1261

Headquarters Addresses:

- **Department of Fish and Game**
1416 Ninth Street, 12th Floor
Sacramento, CA 95814
(916) 653-7664
<http://www.dfg.ca.gov>
- **Fish and Game Commission**
1416 Ninth Street, 13th Floor
Sacramento, CA 95814
(916) 653-4889
- **Wildlife Conservation Board**
801 K St., Suite 806
Sacramento, CA 95814
(916) 445-8448

S3. California Department of Fish and Game, Office of Oil Spill Prevention and Response (OSPR), Resources Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
			✓			• Contingency Planning (R)
			✓			• Enforcement and Inspection (R)
			✓			• Field Service and Resource Assessment activities (RM)
			✓			• Oil Spill Prevention and Administrative Fund (RM)
			✓			• Oil Spill Response Trust Fund (F)
			✓			• Volunteer Network & Volunteer Outreach Program (NR)
			✓			• Education-Outreach and Science Programs (NR)
			✓			• Coordination, Information Branch (NR)
			✓			• Drills and Exercises Program (NR)
			✓			• Harbor Safety Committees (NR)
			✓			• Area Committee Plans (NR)
			✓			• Coastal Protection Review (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The OSPR was created within the California Department of Fish and Game (DFG) by the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990 (OSPRA). Both a spill prevention and a spill response organization, OSPR retains DFG's public trustee and custodial responsibility for protecting and managing the State's fish, wildlife, and plants. Although OSPR is the lead State agency for oil spill prevention and response, this responsibility is shared with 22 agencies represented on the State Interagency Oil Spill Committee (SIOSC). OSPR's primary authorities include: the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990 (Cal. Government Code §§ 8670.28 *et seq.*); Public Resources Code, Division 7.8; California Code of Regulations, Title 14, §§ 815.01 *et seq.*; and the Federal Oil Pollution Act of 1990.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

II. JURISDICTION

OSPR's jurisdiction covers spills that may affect State waters. The OSPR and U.S. Coast Guard (USCG) also co-lead the regional Area Committees formed pursuant to the Federal Oil Pollution Act of 1990 (OPA '90) to plan for oil spill response. The Area Committee Plan that includes the Morro Bay watershed covers San Luis Obispo, Santa Barbara, and Ventura Counties, as well as San Miguel, Santa Cruz, Santa Rosa, Anacapa, and Santa Barbara Islands (see Section III-F).

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activity/Programs

- ♦ **Contingency Planning** — Under the OSPRA, the OSPR Administrator is required to develop a State Oil Spill Contingency Plan and to establish guidelines and regulations for other levels of oil spill contingency plans including marine facilities, tankers, barges and local governments. OSPR requires oil spill contingency plans for all marine facilities with potential discharge into the marine waters of the State, and for all non-public vessels that carry petroleum product as cargo within State waters. Contingency plans, which must be consistent with federal government requirements established under OPA '90, are reviewed and approved by OSPR's Planning, Drills and Monitoring Branch (PDM). In adopting regulations/guidelines for marine facilities and vessels, the OSPR Administrator must provide "best achievable protection" and "best achievable technology" standards to protect the State's coastal resources and marine waters from impacts or potential impacts of oil spills. The Administrator must also take into consideration the marine facility or vessel contingency plan requirements of the national and State contingency plans, the State Lands Commission, the State Fire Marshal, and the California Coastal Commission. The regulations/guidelines are also developed in consultation with the SIOSC and the Oil Spill Technical Advisory Committee.
- ♦ **Enforcement and Inspection** — OSPR enforces laws designed to prevent spills, dispatches units to respond to spills, and investigates spills. OSPR's 24-hour Communications Center in Sacramento dispatches OSPR/DFG wardens who (1) conduct spill investigations, (2) gather and prepare evidence (an essential element in any court case), and (3) have authority to enforce the criminal statutes contained in the OSPRA. The OSPR Administrator establishes procedures and regulations for civil and/or criminal penalties for violations of the OSPRA.

B. Resource Management Activity/Programs

- ♦ **Field Services Unit** — Field Services Unit staff responsibilities include resource assessment, resource/habitat inventory, injury determination during oil spill response, environmental sensitivity analyses of resources at risk, and data collection for resource management. Data for the OSPR's resource inventory are collected by identifying habitat types and analyzing habitats most at risk from oil spills. This information is used to develop pre-incident response strategies and priorities which are incorporated into the Area Committee Plans. During a spill, staff coordinate with OSPR wardens on sample collection, containment, and cleanup measures and other matters relating to habitat and biological resources. They may

also provide initial response to a spill, and are consulted about specific biological information about an area. The State's recovery of resources damaged by an oil spill depends on accurate resource inventories, actual quantification of losses, followed by post-spill comparisons.

- ♦ **Resource Assessment Unit** — Duties of this unit include veterinarian services, coordination and training of wildlife rescue, cleaning, and rehabilitation teams, site restoration/mitigation, management of fixed and mobile rehabilitation facilities, resource economic assessments, and management of the resource inventory mapping and marine diversity databases.

C. Finance Mechanisms

The OSPR Administrator administers the Oil Spill Prevention and Administrative Fund and the Oil Spill Response Trust Fund. OSPR funds specified activities and programs, and reimburses other agencies, through fees deposited into these funds [see also Section IV (Funding)].

- ♦ **Oil Spill Prevention and Administrative Fund** — These funds are to be used solely for all of the following purposes (OSPRA § 8670.40):
 - to implement spill prevention programs through rules, regulations, leasing policies, guidelines, and inspections and to implement research into prevention and control technology;
 - to carry out studies which may lead to improved oil spill prevention and response;
 - to finance environmental and economic studies relating to the effects of oil spills;
 - to reimburse the member agencies of the SIOSC for specified costs incurred;
 - to implement, install, and maintain emergency programs/equipment/facilities to respond to, contain and clean up spills and to ensure that operations will be carried out as intended;
 - to respond to an imminent threat of a spill (a threatened discharge) as specified; and
 - to reimburse the State Board of Equalization for related costs incurred.
- ♦ **Oil Spill Response Trust Fund** — These funds are to be used solely for any of the following purposes (OSPRA § 8670.48):
 - to provide funds to cover costs of response, containment, and cleanup of oil spills into marine waters, including costs of damage assessment and wildlife rehabilitation;
 - to provide emergency loans and to cover response and cleanup costs and other damages suffered by the State or other persons or entities from oil spills into marine waters which cannot otherwise be compensated by responsible parties or the federal government;
 - to pay specified other costs, including claims for damages, finance security, indemnity and related costs/expenses, and borrowing costs (e.g., interest, premium, fees, and charges);
 - to pay for the costs of rescue, medical treatment, rehabilitation, and disposition of oiled wildlife, as incurred by the network of oiled wildlife rescue and rehabilitation stations created pursuant to OSPRA § 8670.37.5.
- ♦ **Science Program** -- Through its **Science Program**, OSPR funds projects associated with oil spill dispersants, bioremediation, wildlife biomedical studies, and biological resource

inventory. Data from these investigations are used to (a) develop decision-making protocols for the use of oil spill cleanup agents, (b) aid the treatment, care, and rehabilitation of oiled wildlife, and (c) improve and refine marine wildlife injury assessment. Research projects funded by the OSPR include:

• Dispersant Efficacy Testing	• Rehabilitated Seabird Monitoring
• Dispersant Effect Research	• Wildlife Biomedical Studies
• Biological Fate of Chemically Dispersed Oil	• California Seabird Monitoring
• Bioremediation Research	• Wildlife Aerial Survey Program
• Pinniped Research	• Oil Spill Wildlife Response Team

D. Other Non-Regulatory Programs

- ♦ **Volunteer Network** — OSPRA § 8670.8.5 permits the OSPR Administrator to use volunteer workers in response, containment, restoration, and cleanup efforts for oil spill in marine waters. Consequently, OSPR has initiated a Statewide volunteer coordination effort for oil spill response. OSPR's Resources Assessment Unit staff train wildlife rescue, cleaning, and rehabilitation volunteers or volunteer organizations, and coordinate and direct volunteers in the physical rescue and treatment of marine birds and mammals.
- ♦ **Volunteer Outreach Program** — Through its Education-Outreach Program, OSPR has established a program whereby operators of small craft refueling docks can volunteer to have OSPR Oil Spill Prevention Specialists inspect their facilities (see Section III-E below).
- ♦ **Education-Outreach Program** — Pursuant to State law, OSPR maintains an Education-Outreach Program in order to assist Small Craft Refueling Dock operators in their prevention and response efforts. State law identifies small craft refueling docks (a waterside operation serving primarily small craft of less than 20 meters in length and less than five tons net weight) as a class of facilities that may apply for exemption from filing the formal oil spill contingency plans and Certificates of Finance Responsibility that are required of larger marine facilities and terminals. Docks that meet the legally specified conditions and that are certified by OSPR as "exempt," however, are responsible for making efforts to prevent oil spills, and for immediately reporting any spills that occur (the latter by telephoning the USCG and the California Office of Emergency Services at their toll-free phone numbers). The Outreach Program being developed provides information through (1) brochures and flyers, (2) signs, (3) telephone contact, (4) voluntary inspections by Oil Spill Prevention Specialists (who can identify strengths and weaknesses in a refueling dock's system, and when appropriate show a dock operator ways to improve his/her ability to prevent and respond to spills), (5) training in spill prevention, response, and new technologies, (7) written education materials, and (7) live, narrated slide presentations for groups. The Outreach Program Coordinator works with other agencies and organizations to develop and share information on pollution prevention products and techniques through networks such as the California Clean Boating Network (CCBN) and the five Harbor Safety Committees.

- ♦ **Science Program** — OSPR has established a focused program of applied research and natural resource monitoring related to oil spill response, cleanup, and natural resource protection. The primary purpose of these studies is to improve oil spill response capabilities including containment, cleanup, oiled marine wildlife veterinary medicine, and to determine the effects of oil on wildlife. OSPR staff responding to oil spills also provide technical assistance with regard to initial site safety issues, spill cause determination, procedures to slow/stop additional releases, spill quantity determination, and technical input to the recovery/disposal effort. OSPR's scientific program includes a new state-of-the-art petroleum chemistry laboratory and other services such as environmental sensitivity area mapping, a comprehensive geographical information system, natural resource damage assessment, veterinary expertise, and sponsorship of related research needs.
- ♦ **Coordination, Information Branch** — Duties of this Branch of the OSPR include: distribute information; provide communication between the OSPR, the oil industry, and the public; provide a central location and clearing-house for public documents, reports, media and legislative contacts; act as liaison to and provide technical support for the SIOSC.
- ♦ **Drills and Exercises Program** — OSPR has initiated a drills and exercises program designed to track and evaluate drills required by the contingency planning regulations. In coordination with the USCG, OSPR staff assist in design, conduct, and evaluation of all types of drills (e.g., equipment deployment, tabletop, etc.) with facility and vessel owner/operators. OSPR wardens and PDM staff participate in drills as players, controllers, or evaluators as necessary.
- ♦ **Harbor Safety Committees** — OSPR has created and funds Harbor Safety Committees for the State's major harbor areas (San Diego; Los Angeles/Long Beach; Port Hueneme; San Francisco, San Pablo and Suisun Bays; and Humboldt Bay). OSPR staff assist the Harbor Safety Committees in developing harbor safety plans to reduce the risk of marine vessel accidents within or on approach to the State's busiest ports.
- ♦ **Area Committee Plans (ACPs)** — The OSPR helped the USCG and regional Area Committees to develop individual ACPs for seven geographical sections of the California coast. The Area Committees are comprised of representatives from over 50 agencies and organizations, including environmental groups, city and county planners, State agencies, the federal government, and industry. Together the seven individual ACPs, which are administered by the USCG, serve as a "one-stop" marine pollution response plan and guarantee that all of the State's shoreline resources have been considered in detail for contingency planning. The nature of the planning process requires that all of the ACPs be continuously updated and revised.
- ♦ **Coastal Protection Review** — OSPR staff have completed a Statewide Coastal Protection Review which identifies oil-spill-response deficiencies, and suggests strategies to address the deficiencies.
- ♦ **Other** — Pursuant to the OSPRA, the Administrator (a) established and chairs the SIOSC and the SIOSC Review Subcommittee; (b) established an Oil Spill Technical Advisory Committee (composed of government, industry experts, and the public); and (c) developed

with Alaska, Oregon, and Washington (and in coordination with British Columbia and Mexico) an interstate compact regarding tanker safety and oil spill response/prevention. OSPR is also working with the USCG to evaluate vessel traffic routing and other safety measures Statewide to reduce pollution incidents off the California coastline; to that end, OSPR has brought into operation, and is helping to fund, a working Vessel Traffic Information Service (VTIS) system for Los Angeles and Long Beach Harbors.

IV. ADMINISTRATION

The OSPR Administrator is a chief deputy director of the Department of Fish and Game and is appointed by the Governor subject to the advice and consent of the State Senate. The Administrator has substantial authority to direct and coordinate State response, cleanup, and natural resource damage assessment activities associated with oil and hazardous materials spills that impact or threaten California coastline areas or waterways.

For further information, contact:

Morro Bay OSPR Field Office
213 Beach Street
Morro Bay, CA 93442
(805) 772-1756

Department of Fish and Game, OSPR
1700 K Street, Suite 250
Sacramento, CA 95814
(916) 445-9338
<http://www.dfg.ca.gov/ospr>

S4. California Department of Health Services (DHS), Health & Welfare Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
	✓		✓			• State Shellfish Sanitation Program (R)
	✓	✓	✓			• Drinking Water Source Assessment and Protection Program (RM)
	✓	✓	✓			• Wellhead Protection Program (RM)
	✓	✓	✓			• Public Water System Finance Assistance Program (F)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

DHS's mission is to protect and improve the health of all Californians. For example, the agency's Division of Drinking Water and Environmental Management (DWEM) promotes and maintains a physical, chemical, and biological environment which contributes positively to health, prevents illness, and assures protection of the public through the regulation and monitoring of public water systems, wastewater reclamation projects, disposal of low level radioactive waste, and shellfish production and harvesting operations.

Primary authorities of the agency include the California Health & Safety Code (H&SC) §§ 100100 *et seq.*;² California Code of Regulations, Title 17, §§ 100 *et seq.*; and the Federal and California Safe Drinking Water Acts.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

² In 1995, Senate Bill 1360 reorganized the Health and Safety Code. Sections related to estuary protection include: sanitary control of shellfish (§§ 112150-112280); recreational water use at public beaches (§§ 115875-115915); drinking water (§§ 116275-117130); and garbage and onsite sewage disposal (§§ 117400-117590).

II. JURISDICTION

Statewide.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

♦ Overview of Regulatory Activities

- DHS administers and enforces sanitation standards for shellfish growing waters, and the harvesting and handling of shellfish intended for human consumption, monitors waters for bacterial contamination, and issues shellfish safety warnings during unsafe bacterial levels. The monitored levels can serve as an indicator of nonpoint source pollution.
- DHS establishes minimum standards for the sanitation of public beaches, including refuse removal, as necessary to protect public health and safety. Local health officers inspect public beaches in their jurisdiction to determine if compliance with the standards is occurring. If any violation of the standards is found, the health officer shall restrict the use of, or close, all or part of the beach until compliance with such standards occurs.
- DHS sets maximum contaminant levels for contaminants in drinking water, and certifies laboratories that perform regulatory analyses of drinking water, waste water, hazardous wastes, contaminated soils/sediments, and/or pesticide residues.
- DHS administers control programs, maintained by local health officers, to prevent backflow and contamination of public water systems (e.g., program provisions require that irrigation systems that are used to apply pesticides or fertilizers shall be equipped, at a minimum, with reduced pressure backflow prevention).
- DHS administers and enforces provisions for the protection of the water quality of sources of drinking water supply, including: (1) placing of any septic tank in or upon the borders of any river, creek, pond, reservoir or stream in a manner that waters become polluted; and (2) pollution by livestock of waters, or tributaries of waters, used for drinking supply.
- DHS regulates dumping of "garbage" (including swill, refuse, cans, bottles, paper, vegetable matter, dead animal carcasses/offal, trash, rubbish, radioactive waste materials, and discarded, nonbiodegradable materials such as plastics or damaged/broken marine equipment) in or upon the navigable waters of the State, or that is loaded on any vessel with the intent that the garbage shall be dumped in or upon navigable waters of the State.
- DHS is responsible for aspects of solid waste management and resource recovery as they directly affect human health, including: contamination of air, water, and land; handling and disposal of hazardous wastes; and management practices that threaten public health. The agency establishes minimum standards for solid waste handling/disposal for the protection of the public health.

- ◆ **The California Shellfish Sanitation Program** — DHS has the responsibility to determine if a public health risk is associated with eating shellfish from a location in California. It is unlawful in California to sell, offer, or hold for sale for human consumption any shellfish unless the harvest area is certified by DHS (a harvest area may be any waterbody that meets certain standards of cleanliness, as well as an onshore aquaculture system). DHS may close a shellfish growing area upon a determination that shellfish taken from the area may be unsafe or unfit for human consumption. Within DHS, this program is divided into two components:
 - Pre-harvest. DHS staff protect public health from commercial and recreational shellfish harvesting by providing surveillance, **Shellfish Growing Area Certificates**, monitoring (for water quality/marine biotoxins), and enforcement. A shellfish growing area can not be certified until a sanitary survey of the proposed area and its watershed is conducted. The survey evaluates the watershed or source of water during all seasons of the year, and seeks to determine hazards associated with all actual and potential sources of pollution (e.g., sewage treatment plants, industrial plants, urban runoff, and agricultural operations). EMB staff conduct the sanitary survey with applicant participation on a cost-sharing basis.
 - Post-harvest. DHS staff regulate post-harvest handling, processing, and distribution of shellfish, and issue a **Shellfish Handling and Marketing Certificate**.

DHS has monitored total and fecal coliform levels in Morro Bay since 1990, and on occasion has halted shellfish harvesting in the Bay due to bacterial contamination. At these times, DHS and the RWQCB have jointly undertaken investigations to determine bacteria sources. Joint efforts are also being undertaken to control live-aboard boat discharges, private lift-station failures, and other discharges. The City of Morro Bay Public Works Department provides data to DHS collected for compliance with their NPDES Permit for wastewater discharge to Chorro Creek. The DHS (1996) report *Commercial Shellfish Growing Area Sanitary Survey Report and Reevaluation for Morro Bay, California* (reports were also published in 1985 and 1974) classifies shellfish growing areas in Morro Bay as "conditionally approved" for commercial harvesting due to "the potential for intermittent microbiological pollution from various sources (including runoff from the watershed during rainfall events)." The DHS-adopted *Management Plan for Commercial Shellfishing in Morro Bay California* establishes standards, conditions and procedures necessary to manage harvesting from the conditionally approved area of shellfish intended for sale for human consumption.

B. Resource Management Activities/Programs

- ◆ **California Drinking Water Source Assessment and Protection (DWSAP) Program** — The 1996 reauthorization of the federal Safe Drinking Water Act (FSDWA), which is implemented in California by the DHS, includes an amendment establishing a state program to protect sources of drinking water. This program envisions a partnership between state and local agencies to ensure that the quality of drinking water sources is maintained and protected. Initially, development of a source water assessment program will require DHS (1) to delineate the boundaries of the areas from which public water systems receive supplies of

drinking water, and (2) to identify contaminants and their sources within the delineated areas in order to assess the susceptibility of the water system to these contaminants. The groundwater portion of the DWSAP will serve as California's **Wellhead Protection Program**.

C. Finance Mechanisms

- ♦ **Public Water System Finance Assistance Program** — The 1996 FSDWA amendments include provisions for providing grants to states to establish a State Drinking Water Revolving Fund Program, pursuant to the State Legislature's approval of legislation authorizing the establishment of this program, and the State's ability to provide 20% matching funds. The program, which would be administered by the DHS, would provide low interest loans and other assistance to make necessary improvements to public drinking water systems.

D. Voluntary Initiatives/Incentive Programs (i.e., public and/or private efforts)

- ♦ **Epidemiological Investigations** — In the event that an outbreak in pesticide poisoning or any disease or condition caused by pesticide poisoning has occurred in a county, and upon request by the county's local health officer, DHS provides the local health officer with the necessary staff and technical assistance to conduct an epidemiological investigation of the outbreak; where appropriate, makes recommendation to control or prevent such poisoning outbreaks.
- ♦ **Other Activities** — DHS conducts research, studies, monitoring, and demonstration projects relating to the provision of a dependable safe supply of drinking water. Pursuant to a 1992 Memorandum of Understanding with the State Department of Pesticide Regulation, DHS shares information on monitoring results that are positive for pesticide residues. A DHS representative participates on the Pesticide Regulation and Evaluation Committee administered by DPR to review, evaluate and propose pesticide regulation. DHS also serves as an advisor to other agencies including provision of technical assistance, formulation of technical criteria and guidelines, consultation, education, risk assessment, hazard determination, and issuance of recommendations.

IV. ADMINISTRATION

DHS is one of 13 departments comprising the Health and Welfare Agency. The DHS executive officer (the Director of Health Services) is appointed by the Governor, subject to confirmation by the Senate. DHS has more than 5,000 employees working in the Sacramento headquarters office or in the more than 60 field offices located throughout the State. DWEM branches include those listed below.

- ♦ **The Environmental Management Branch (EMB)** plays a critical role in protecting public health as it relates to the safety of marine waters and seafood consumption.
- ♦ **The Drinking Water and Technical Programs Branch** maintains the scientific expertise of the drinking water program and carries out its administrative functions.

The **Drinking Water Field Operations Branch** inspects and oversees public water systems to assure delivery of safe drinking water. It provides assistance and/or training on water quality issues to local health departments, Regional Water Quality Control Boards (RWQCBs), and the Department of Toxic Substances Control.

For further information, contact:

Regional Offices:

- **California Department of Health Services**
P.O. Box 1480
Lompoc, CA 93436
(805) 733-1696
- **California Department of Health Services**
Environmental Management Branch
2151 Berkeley Way, Room 118
Berkeley, CA 94704
(510) 540-3423

Headquarters Office:

California Department of Health Services
714/744 P St.
P.O. Box 942732
Sacramento, CA 94234-7320
(916) 445-4171
<http://www.dhs.cahwnet.gov>

S5. Department of Pesticide Regulation (DPR), Cal/EPA

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
			✓			• Pesticide Product Registration/ Re-evaluation (R)
			✓			• Restricted Materials Permitting (R)
			✓			• Pesticide Licensing/Certification (R)
			✓			• Incident Investigation (R)
			✓			• <i>California Pesticide Management Plan for Water Quality/Management Agency Agreement with State Water Resources Control Board (1997) (R)</i>
			✓			• Ground Water Protection Program (R)
			✓			• Surface Water Protection Program (R)
			✓			• Endangered Species Program (R)
			✓			• Pest Management Grants (F)
			✓			• Pest Management Alliance Program (F)
			✓			• Integrated Pest Management (IPM) Innovators Program (NR)
			✓			• Training (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

DPR regulates all aspects of pesticide sales and use, recognizing the need to control pests, while protecting public health, the environment, and fostering reduced-risk pest management strategies. DPR program authorities include; the Food and Agricultural Code (FAC) §§ 11401 *et seq.* [including the Birth Defect Prevention Act (FAC § 13121) and the Pesticide Contamination Prevention Act of 1985 (FAC § 13141)]; California Code of Regulations, Title 3 §§ 6000 *et seq.* and Title 27, Division 2), and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

II. JURISDICTION

DPR has primary responsibility for evaluating and mitigating environmental and human health impacts of pesticide use in California. It oversees pesticide registration and the safety of the pesticide workplace, and enforces State and federal pesticide laws Statewide.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ◆ **General Pesticide Regulation, Enforcement, Evaluation, & Registration Authorities** — DPR, under authority of the Food and Agricultural Code, is the lead agency, with local administration by County Agricultural Commissioners (CACs), for pesticide regulation in California. DPR has the authority and responsibility to:
 - provide for the proper, safe, and efficient use of pesticides that are essential for protecting the public health and safety in the production of food, fiber, forest products, ornamental horticulture, and for other uses that include structure, home and landscape maintenance;
 - protect the environment from environmentally harmful pesticides by prohibiting, regulating, or ensuring proper stewardship of those pesticides;
 - assure agricultural and pest control workers of safe working conditions where pesticides are present;
 - permit pest control by competent and responsible licensees, certificate holders, permittees, and operator identification holders under strict control of the DPR director and CACs;
 - assure consumers and users that pesticides are properly labeled and are appropriate for the use designated by the label, and that State or local dissemination of information on uses of any registered pesticide is consistent with the uses for which the product is registered;
 - encourage the development and implementation of pest management systems, stressing application of biological and cultural pest control techniques with selective pesticides when necessary to achieve acceptable levels of control with the least possible harm to non-target organisms and the environment;
 - continuously evaluate pesticides to determine if any endanger the agricultural or nonagricultural environment, placing appropriate restrictions on use including limitations on worker reentry, quantity used, area treated, and manner of application;
 - establish, as necessary, criteria to evaluate environmental effects of pesticides; and
 - coordinate with other local, State, and federal agencies responsible for environmental issues regarding pesticides and water quality.
- ◆ **Pesticide Product Registration** — The FAC requires that DPR thoroughly evaluate and register pesticides before they are sold or used in California. The DPR Director may refuse to register, or may cancel, any pesticide that falls under specified criteria, including: serious, uncontrollable adverse effects on the environment; less public value or greater detriment to the environment than benefit received from its use; use that is detrimental to vegetation, domestic animals or public safety; or use that is of little or no value for its intended purpose. **Reevaluation of product registration** is often triggered by ongoing DPR registration reviews, State and county pesticide use surveillance/illness investigations, pesticide residue

sample analyses, environmental monitoring, or new information. If an adverse impact has occurred or is likely to occur, the regulations require DPR to reevaluate the registration of the pesticide. Factors that may initiate reevaluation include: (a) public/worker health hazard; (b) environmental contamination; (c) residue over tolerances; (d) fish or wildlife hazard; (e) other information suggesting a significant adverse risk; or (f) availability of an effective, feasible alternate material or procedure that is demonstrably less destructive to the environment. DPR consults with other public agencies regarding proposed pesticide registrations/re-evaluations. This is accomplished through routine contacts and, more formally, through administration of the **Pesticide Registration and Evaluation Committee (PREC)**, which includes representatives of DPR, Department of Health Services, Department of Industrial Relations, Department of Fish and Game (DFG), State Water Resources Control Board (SWRCB), Air Resources Board, University of California, and the CACs Association.

- ◆ **Restricted Materials and Permitting Program** — Pesticides are designated “restricted” materials through promulgation by the Director. Restricted materials generally require a permit from the CACs prior to possession or use. Criteria established to designate a pesticide a restricted material include hazard to public health, farm workers, domestic animals, honeybees, the environment, wildlife, or other crops (FAC § 14004.5).
- ◆ **Pesticide Licensing and Certification Program** — The DPR certifies restricted use applicators and examines and licenses pest control operators, agricultural aircraft pilots, and pesticide dealers/advisers to ensure that persons selling, possessing, storing, handling, applying, and recommending pesticide use are qualified and knowledgeable in the proper and safe use of pesticides. To renew certificates/licenses, the holder must complete specified minimum continuing education hours within each two-year certificate/license period.
- ◆ **Incident Investigation** — The DPR and/or CAC investigate reports of actual or potential significant adverse effects to people or the environment resulting from pesticide use. Criteria that trigger “priority” investigation status and special handling include: specified human effects (e.g., death, serious illness/injury, or illness to five or more persons); significant contamination of land, air, or surface or ground water; property loss; or fish and wildlife kills. After an investigation, DPR or the CAC may (1) issue sanctions for pesticide misuse, (2) evaluate pesticide use patterns or the effectiveness of the pesticide regulatory system, (3) develop mitigation measures to avoid future injury or damage, or (4) cancel products/product uses.
- ◆ **California Pesticide Management Plan for Water Quality & Management Agency Agreement (MAA) with SWRCB** — This Plan describes how DPR and the CACs will work with the SWRCB/RWQCBs to coordinate their overlapping authorities and protect water quality from potential adverse effects of pesticides. The Plan provides for outreach programs, compliance with water quality standards, ground and surface water protection programs, regulatory compliance, interagency communication, and dispute/conflict resolution. The plan also lists reduced-risk practices to minimize the potential for offsite pesticide movement and transport of residues to ground or surface water. The MAA between DPR and the SWRCB serves as an implementation plan for the management and protection of surface water quality. DPR and SWRCB meet at least annually to discuss existing and

proposed projects, evaluate the effectiveness of the MAA and Plan, discuss DPR and SWRCB priorities, and consider changes to the MAA. CACs and Regional Board staff are encouraged to attend. In addition, DPR and SWRCB staff will meet at least twice each year to discuss recent activities of each agency, technical issues that deal with pesticides and water quality, and overall program direction

- ◆ **Ground Water Protection Program** —DPR has authority to prevent further pesticide pollution of ground water from legal use of currently registered pesticides. Under this program, DPR (1) evaluates factors that affect the movement of pesticides to ground water, (2) monitors ground water for pesticide contamination, (3) identifies and designates sensitive areas as Pesticide Management Zones, and (4) develops reduced-risk practices that, when implemented, will minimize movement of pesticides to ground water and improve water quality. DPR also identifies and tracks pesticides on its **Ground Water Protection List** (a list of pesticides that have the potential to pollute ground water).
- ◆ **Surface Water Protection Programs** — DPR has several programs designed to prevent further pesticide pollution of ground water from legal agricultural use of currently registered pesticides. The **Rice Pesticide Program** is intended to reduce discharges to surface waterways of the pesticides molinate and thiobencarb which are used by rice growers. The **Dormant Spray Water Quality Program** is intended to prevent aquatic toxicity from organophosphate pesticide residues (diazinon, chlorpyrifos, and methidathion).
- ◆ **Endangered Species Program** —DPR studies ways to protect listed species from potentially harmful exposure to pesticides. DPR's resource base of information on pesticide exposure to species of concern includes: (1) a comprehensive library on the toxicology of pesticides to aquatic organisms; (2) a record of all agricultural uses of pesticides (by active ingredient, rate of application, commodity, date applied, and location); (3) a permit system that provides advance notice of applications of pesticides that pose particular risks to non-target organisms; (4) an Internet site that provides information on protection of listed species; (5) agreements with DFG to investigate any fish or wildlife losses where pesticides are suspected; (6) a statutory partnership with CACs to enforce pesticide use violations; and (7) staff that develops pesticide use limits and applicator training materials for protection of listed species.

B. Resource Management Activities/Programs

- ◆ DPR's resource management activities overlap with other functions described in this section.

C. Finance Mechanisms

- ◆ **Pest Management Grants** — DPR provides funding for the development of innovative pest management practices that reduce risks associated with pesticide use. This grants program provides support for groups to work with university researchers, private industry, and consultants as necessary to set up demonstration or applied projects of new integrated pest management (IPM) systems. Projects that focus on a new, reduced-risk technology or practice and its adoption by a group are also considered. Priority for applied research grants

is given to agricultural projects on a farm scale and nonagricultural projects that develop critical components of a pest management system threatened or disrupted due to environmental and human health impacts, regulatory activities, resistance problems, or introduction of new pests.

- ♦ **Pest Management Alliance Program** — DPR is launching a new initiative to develop partnerships involving applied research, implementation, and/or demonstration projects in pest management. The goal is to develop and demonstrate pest management systems that are both economically sound and that reduce the risk to public health and the environment.

D. Other Non-Regulatory Programs

- ♦ **IPM Innovator Award Program** — In 1994, DPR established this award program to help disseminate information on alternative methods of pest management. The program is designed to give recognition to growers and others who are developing and using innovative ways of managing pests, and to coordinate the formation of new "innovator" groups.
- ♦ **Training** — DPR staff provide training to CAC staff biologists who work in pesticide use enforcement. DPR staff also conduct a series of annual ground water training courses given for Pest Control Advisers who wish to write ground water protection advisories.
- ♦ **California Pesticide Management Plan for Water Quality (Plan)** -- See Regulatory Programs/Activities.

IV. ADMINISTRATION

DPR is administered by a Director who is appointed by the Governor. The Director is responsible to the Secretary of Cal/EPA.

For further information, contact:

Department of Pesticide Regulation
1020 N Street, Room 100
Sacramento, CA 95814-5624
(916) 324-4100
<http://www.cdpr.ca.gov>

S6. Regional Water Quality Control Board (RWQCB) — Central Coast Region, Cal/EPA

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓		• National Pollutant Discharge Elimination System (NPDES) (R)
✓				✓	✓	• Water Quality Certification (R)
✓	✓	✓	✓		✓	• Waste Discharge Requirements (WDRs) (R)
	✓	✓				• Prohibitions and Prohibition Exemptions (R)
✓	✓	✓	✓	✓	✓	• Enforcement Actions (R)
✓	✓	✓	✓	✓	✓	• Department of Defense (R)
✓	✓	✓	✓		✓	• Spills, Leaks, Investigation and Cleanup (SLIC) (R)
			✓			• Underground/Above Ground Tanks (R)
✓	✓	✓	✓	✓	✓	• Basin Planning (R) (RM)
✓	✓	✓	✓		✓	• TMDLs (R)
			✓			• Bay Protection and Toxic Cleanup Program (BPTC) (RM)
✓	✓	✓	✓	✓	✓	• Nonpoint Source Management Program (RM)
	✓	✓	✓	✓	✓	• Water Quality Assessment (RM)
			✓			• Pesticide Management (RM)
✓	✓	✓	✓	✓	✓	• CEQA Document Review (RM)
✓	✓	✓	✓		✓	• Regional Monitoring (RM)
✓	✓	✓	✓	✓	✓	• Watershed Management Initiative (RM)
✓	✓	✓	✓		✓	• Clean Water Act Section 205(j) and 319(h) Grant Funds (F)
			✓			• Underground Tank Fund (F)
✓	✓	✓	✓	✓	✓	• State Revolving Fund (F)
✓	✓	✓	✓	✓	✓	• Volunteer Monitoring (NR)
✓	✓	✓	✓	✓	✓	• Public Education/Technical (NR) Assistance
✓			✓			• Inactive Mine Reclamation/Remed.

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

I. MISSION AND AUTHORITIES

The mission of the Central Coast RWQCB is to preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. RWQCB program authorities include the California Water Code (C.W.C.) §§ 3000 *et seq.* (the Porter Cologne Water Quality Control Act of 1969) and particularly C.W.C. §§ 13050, 13240, 13260, 13267, 13304, 13245, & 13390; the Health and Safety Code, Division 20, chapter 6.67; the California Code of Regulations (Title 27, Division 2); and the Federal Clean Water Act (CWA), particularly CWA §§ 402, 401, 303, 319, and 205(j).

CWA § 13050 directs each RWQCB to adopt a water quality control plan (basin plan), defined as having three components: beneficial uses of water bodies which are to be protected, water quality objectives which protect those uses, and an implementation plan which accomplishes those objectives. The current Basin Plan for the Central Coast RWQCB was prepared on September 8, 1994 and includes revisions dated April 14, 1995. The Basin Plan identifies beneficial uses for the Morro Bay Estuary. The Basin Plan also lists both water quality objectives for estuaries and objectives specific to beneficial uses. For example, water contact recreation is an identified beneficial use for the Morro Bay Estuary. Water quality objectives for this beneficial use include pH values and bacteria concentrations in terms of fecal coliform. The Basin Plan describes the RWQCB's implementation plan to protect the beneficial uses and meet the water quality objectives. This includes descriptions of the tools available to the RWQCB under authority of the rules and regulations itemized above, as well as plans and policies of the State Water Resources Control Board that facilitate protection of estuaries.

II. JURISDICTION

The Central Coast RWQCB is responsible for a 300-mile long by 40-mile wide section of the State's central coast. Its geographic area encompasses all of Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara Counties as well as the southern one-third of Santa Clara County, and small portions of San Mateo, Kern, and Ventura counties.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ♦ **National Pollutant Discharge Elimination System (NPDES)** — The RWQCB issues NPDES permits to regulate discharges of waste from point sources to "waters of the United States." "Waters of the United States" are surface waters such as rivers, intermittent streams, dry stream beds, lakes, bays, estuaries, oceans, etc. The permits are authorized by Section 402 of the Clean Water Act and Section 13370 of the Porter-Cologne Water Quality Control Act. The permit content and the issuance process are contained in 40 Code of Federal Regulations Part 122 and Chapter 9 of the California Code of Regulations. RWQCBs are authorized to take a variety of enforcement actions to obtain compliance with an NPDES permit. The U.S. EPA has approved the State's program to regulate discharges of wastewater from point sources to "waters of the United States." The State, through the RWQCBs, issues

the NPDES permits, reviews discharger self-monitoring reports, performs independent compliance checking, and takes enforcement actions as needed. NPDES permits are required to prescribe conditions of discharge which will ensure protection of beneficial uses of the receiving water. The RWQCB uses the Basin Plan, The Ocean Plan (see SWRCB), and water quality control policies adopted by the SWRCB to develop permits for specific types of discharges or uses of wastewater. The RWQCB has issued an NPDES permit for the discharge from the California Men's Colony in the Morro Bay Watershed. The treatment facilities at the California Men's Colony also serve the California National Guard Camp San Luis Obispo, Cuesta College, the San Luis Obispo County Educational Center, and the San Luis Obispo County Operational Facility. The facilities mostly discharge to Chorro Creek and some effluent is used to irrigate fodder crops on nearby lands owned by California State Polytechnic University.

In addition to regulating discharges of wastewater to surface waters, NPDES permits also require municipal sewage treatment systems to conduct pretreatment programs if their design capacity is greater than five million gallons per day. Smaller municipal treatment systems may be required to conduct pretreatment programs if there are significant industrial users of their systems. The pretreatment programs must comply with 40 Code of Federal Regulations Part 403. The purpose of the pretreatment programs is to protect receiving water where the treatment plant discharges and solids disposal areas from incompatible wastes. The municipalities in the Morro Bay Watershed are not required to implement formal pretreatment programs.

The RWQCB also regulates storm water discharges of pollutants from municipal storm water conveyance systems, industrial facilities, and construction sites pursuant to Section 402(p) of the Clean Water Act. The SWRCB issued general permits for storm water discharges from industrial and construction activities. They also developed through there Stormwater Quality Task Force the California Stormwater Best Management Practice Handbooks to present management practices which will help to preserve natural hydrology. In order to be covered by one these general permits, responsible parties must submit a notice of intent to be covered by the permit to the State Board. The notice of intent is an agreement accepting the discharge specifications, monitoring and reporting requirements of the general permits. The RWQCBs track notification and coverage, provide technical assistance, and monitor compliance with these permits. CalTrans and the City of Morro Bay are currently engaged in construction activity covered by permits to discharge storm waters to Chorro Creek in the Morro Bay watershed. The permits require the responsible parties to prepare and implement a storm water pollution prevention plan and submit an annual report regarding water quality and pollution prevention and control efforts.

- ♦ **Water Quality Certification** — Pursuant to CWA § 401, the Board must provide water quality certification on applications for CWA § 404 permits for the discharge of dredged or fill material to surface waters of the United States. The Regional Boards review and recommend action to the SWRCB Executive Director on the applications. The Board evaluates the projects for which Section 404 permits are requested to determine whether waters of the State would be impacted by the project. The Board determines whether to waive certification, recommend the SWRCB issue a certification with or without conditions,

or deny water quality certification. RWQCB staff routinely works with project applicants to develop mitigation measures to result in waiving certification. The measures developed generally result in avoiding or minimizing potential water quality impacts.

- ♦ **Waste Discharge Requirements (WDRs)**— The Board issues WDRs, in accordance with Section 13263 of the Porter Cologne Water Quality Control Act, to protect beneficial uses of ground and surface water quality from waste discharges. The Board issues the WDRs, reviews self-monitoring reports submitted by the discharger, performs independent compliance checking, and takes necessary enforcement actions (as authorized by the Porter Cologne Water Quality Control Act). The Board may also waive issuance of WDRs pursuant to Section 13269 if the Board determines that such waiver is in the public interest. WDRs can be waived for a specific discharge or types of discharges. A waiver of a WDR is conditional and may be terminated at any time by the Board.

The Board regulates solid waste discharges to land to protect ground water resources with WDRs. WDRs for disposal of waste to land incorporate regulations of the California Code of Regulations, Title 27, the Federal Resource Conservation and Recovery Act, the Toxic Pits Cleanup Act, and State Health Department regulations. Types of land disposal operations being regulated include landfills, surface impoundment's, septage and sludge disposal, mining operations, confined animal facilities, and some oil field exploration and production facilities. In the Morro Bay watershed, waste disposal to land from the following facilities is being regulated with WDRs: PG&E hazardous waste surface impoundment's, the closed Los Osos Landfill (operated by the County of San Luis Obispo), and one closed landfill site operated at California National Guard Camp San Luis Obispo. Regulation of the two landfill sites has indicated that ground waters have been affected by the waste discharges but no prolonged impact to the receiving surface waters adjacent to the landfill sites has been detected.

The Board also may regulate community on-site sewage disposal systems with WDRs. "Community systems" are defined in the Basin Plan as: (1) residential wastewater treatment systems for more than 5 units or more than 5 parcels; or, (2) commercial, institutional or industrial systems to treat sanitary wastewater equal to or greater than 2500 gallons per day (average daily flow). Several schools, mobile home parks, and multi-unit residences in Los Osos are regulated by WDRs for their on-site sewage disposal systems.

Finally, the Board regulates industrial wastewater with WDRs. One site in the Morro Bay watershed falls into this category, Rantec Manufacturing Plant. WDRs for industrial wastewaters generally incorporate standards of performance, pretreatment standards and effluent limitations promulgated by U.S. EPA. pursuant to CWA § 402.

- ♦ **Prohibitions and Prohibition Exemptions** — The Board can prohibit specific types of discharges to certain areas under authority of Porter Cologne Water Quality Control Act Section 13243. These discharge prohibitions may be revised, rescinded, or adopted as necessary. Discharge prohibitions are described in the Basin Plan. The community of Los Osos-Baywood Park has been affected by the prohibitions related to individual, alternative, and community sewage disposal systems. Development on small lots resulted in one of the

most densely populated areas without public sewers on the Central Coast. Septic tank effluent is discharged in predominantly sandy soil over a ground water basin which is the sole source of water for the area. Some shallow wells have approached and exceeded the public health maximum nitrate concentration limit. Findings of a Clean Water Grant-funded study of the situation resulted in a Basin Plan Prohibition of discharges effective November 1, 1988. A community sewer system is currently being considered for the area.

- ♦ **Enforcement Actions** — The Board is authorized to use a variety of enforcement mechanisms to facilitate remediation of water quality problems and Basin Plan violations. A Notice of Violation is a letter formally advising the discharger that the facility is in noncompliance and that additional enforcement actions may be necessary, if appropriate actions are not taken. The Regional Board may request a technical or monitoring report to facilitate investigation of any situation that may affect water quality pursuant to Section 13267 of the Porter Cologne Water Quality Control Act. A Time Schedule can be issued, pursuant to Section 13300, to specify actions a discharger shall take to correct or prevent violations of requirements for situations in which the Board is reasonably confident that the problem will be corrected. A Cleanup or Abatement order can be issued, pursuant to Section 13304 of the Porter Cologne Water Quality Control Act, to require a discharger to clean up a waste or abate its effects or, in the case of a threatened pollution or nuisance, take other necessary remedial action. Cleanup or Abatement Orders are issued for situations when action is needed to correct a problem caused by regulated or unregulated discharges which are creating or threatening to create a condition of pollution or nuisance. A Cleanup or Abatement Order is also used by the Board to establish the acceptable level of cleanup. A Cease and Desist Order can be issued, pursuant to Section 13301 of the Porter Cologne Water Quality Control Act, to require a discharger to comply with Waste Discharge Requirements or prohibitions according to a time schedule. If the violation is threatening water quality, a Cease and Desist Order can be used to require appropriate remedial or preventative action. A Cease and Desist Order is issued by the Regional Board when violations of requirements or prohibitions are threatened, are occurring, or have occurred and probably will continue in the future. Pursuant to Section 13308, if the Regional Board determines there is a threatened or continuing violation of any order previously issued, the Regional Board may issue an order establishing a time schedule and prescribing a civil penalty due if compliance is not achieved in accordance with that time schedule. Administrative Civil Liabilities (monetary liabilities or fines) may be imposed pursuant to Article 2.5 of the Porter Cologne Water Quality Control Act.

In the Morro Bay watershed, the following enforcement actions have been issued. An administrative civil liability for \$130,000 was issued to the California Men's Colony for falsifying records and for discharge violations. A cease and desist order is currently in effect for corrective actions (including repair of their digester) as a result of the discharge violations. Time schedule order No. 95-90, pursuant to Section 13308, was issued to San Luis Obispo County requiring completion of the community sewer system. This was the first use of this type of enforcement action in the State.

- ♦ **Department of Defense (DOD)** — The Regional Board is involved in oversight of investigation and cleanup of water resources impacted or threatened by waste discharges from DOD facilities. A Memorandum of Agreement, signed by the U.S. Department of Defense and State Officials, provides State oversight cost reimbursement. Regional Boards and the Department of Toxic Substances Control share regulatory responsibility and reimbursement dollars allocated to the DOD program. A Memorandum of Understanding exists between the Regional Boards, the SWRCB and the Department of Toxic Substances Control specifying roles and responsibilities in hazardous waste cleanups where overlap may occur. Federal facilities being addressed by this program in the Morro Bay Watershed include California National Guard, Camp San Luis Obispo and San Luis Obispo County, Camp San Luis Obispo. These facilities must cleanup hazardous waste releases pursuant to requirements of the federal Comprehensive, Environmental Response, Compensation, and Liability Act, the Clean Water Act and Porter Cologne Water Quality Control Act. Specifically, the Regional Board oversees groundwater investigations and cleanup activities at these facilities. Some sites/locations at these facilities are at the beginning stages of the CERCLA investigation and cleanup process (hutment heating systems, former firing ranges, a PCB storage area, a former pesticide/herbicide storage area, and several underground storage tank). Results of sites investigations that are farther along indicate that ground water impacts are present beneath and adjacent to the Sutter Avenue Landfill and at nine underground storage tank locations. To date, no impact to surface waters has been documented.
- ♦ **Spills, Leaks, Investigation and Cleanup (SLIC) Program** — The Board's staff investigates reports of unauthorized discharges (spills and leaks) of hazardous materials. These discharges can be from old burn dumps, abandoned landfills, solvent spills, pipeline breaks, tanker truck spills, and illegal dumping sites. Information regarding hazardous waste discharge is obtained in the following manner: "Reportable Quantities of Hazardous Waste and Sewage Discharges" have been established by the SWRCB and the Department of Health Services pursuant to Section 13271 of the Porter Cologne Water Quality Control Act and Section 25140 of the Health and Safety Code. The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65 found in Section 25249 of the Health and Safety Code) requires the Governor to publish a list of chemical known to the State to cause cancer or reproductive toxicity annually. Section 25180 of the Health and Safety Code requires designated governmental employees to disclose information to the local Board of Supervisors and local health officer regarding an illegal discharge of hazardous waste if the discharge is likely to cause substantial injury to the public. Regional Board staff receives complaints of nuisance conditions and reports of spills directly from local agency officials and members of the general public. Proper response to reports of unauthorized discharges and spills includes the following as needed: completion of a spill report form; notification to other responsible agencies, or interested parties; site inspection to determine validity of the report and assess the situation; direct responsible parties to perform preliminary site assessment, pollution characterization, on-going monitoring, and remedial action plan; initiation of enforcement action when needed (letters, cleanup or abatement orders, and/or waste discharge requirements; notification to reporting party of findings and subsequent action, (except in

cases where anonymity is requested); and, establishment of cleanup goals. Recent on-going examples of responses to an unauthorized discharge in the Morro Bay Watershed include several dry cleaners with solvent releases in the City of Morro Bay. Regional Board staff also assists agencies at large-scale hazardous material releases to assess immediate threats. Staff's role is to provide immediate, on-site technical assistance concerning water quality in order to minimize the potential damage to the public health and safety, and the environment.

- ◆ **Underground Tanks/Above Ground Tanks:** — The Regional Board assists with regulation of underground and above ground storage tanks by providing oversight of, investigation and cleanup from leaking tanks. The Health and Safety Code, Chapter 6 and the California Code of Regulations, Title 23, Division 3, Chapters 16 provide Regional Boards and local agencies authority and the requirements for oversight related to underground storage tanks.

The Regional Board typically oversees cases involving impact to surface and ground water while the local agencies oversee impacts to soil. In some cases, the Regional Board oversees both soil and ground water cleanup. The Regional Board carries out investigations and cleanup of leaky tanks in a manner similar to investigations and cleanups in the Spills, Leaks, Investigations, and Cleanup (SLIC) Program mentioned previously. In the Morro Bay Watershed there are four active leaking underground storage tank cases in this program. Three are in the City of Morro Bay, and one in Los Osos.

Above Ground Storage Tanks -- The Regional Board shares oversight responsibilities with DFG. Leaks attributed to above ground storage tanks are reported to Regional Board by tank operators/owners, agencies, and members of the public. Oversight entails investigation of problems and directing remedial actions to protect water quality, similar to UGT and SLIC cases. Within Morro Bay watershed there are two above ground tank sights. They are: 1) Chevron, and 2) Texaco/Estero Bay tank farm (also referred to as Federal Fuel Facility in the USEPA Superfund Program now owned by Texaco). Texaco has had discharges in the past to drainage's flowing into Estero Bay, which potentially have/could impact water quality within the Morro Bay estuary.

- ◆ **Basin Planning:** -- Federal CWA § 303 and Porter Cologne Water Quality Control Act Section 13050 directs each RWQCB to adopt a water quality control plan (basin plan), defined as having three components: beneficial uses of water bodies which are to be protected, water quality objectives which protect those uses, and an implementation plan which accomplishes those objectives. The current Basin Plan for the Central Coast RWQCB was prepared on September 8, 1994 and includes revisions dated April 14, 1995. The Basin Plan identifies beneficial uses for the Morro Bay Estuary. The Basin Plan also lists both water quality objectives for estuaries and objectives specific to beneficial uses. For example, water contact recreation is an identified beneficial use for the Morro Bay Estuary. Water quality objectives for this beneficial use include pH values and bacteria concentrations in terms of fecal coliform. The Basin Plan describes the RWQCB's implementation plan to protect the beneficial uses and meet the water quality objectives. This includes descriptions of the tools available to the RWQCB under authority of the rules and regulations itemized, as well as plans and policies of the State Water Resources Control Board that facilitate protection of estuaries.

The Basin Plan is a flexible tool which must be reviewed and revised regularly for it to adapt to changing conditions. The federal Clean Water Act (Section 303(c)) requires states to hold public hearings for review of water quality standards at least once every three years (the triennial review process). Water quality standards consist of beneficial use designations and water quality criteria (objectives) necessary to protect those uses. The Porter-Cologne Water Quality Control Act requires the entire Basin Plan to be reviewed periodically. While a major part of the review process consists of identifying potential problems, an important part of the review is the reaffirmation of those portions of the plan where no potential problems are identified.

In preparation for the public hearings, Regional Board staff reviews problems and issues needing revision in the Basin Plan. Staff then prioritizes the areas in need of revision and prepares a draft Basin Plan amendment priority list. Staff solicits public input of the draft Basin Plan amendment priority list.

At the conclusion of the triennial review public hearing, Regional Board staff prepares a final Basin Plan amendment priority list. Placing a potential problem on the priority list will only require the Regional Board staff to investigate the need for an amendment. It does not necessarily mean a revision of the Basin Plan will be made. Detailed workplans of each issue, identifies issues that can be completed within existing resource allocations over a three-year period, and identifies a list of issues requiring additional resources to complete.

Once the triennial review process is complete, Regional Board staff begin investigating the issues in order of rank. After each investigation, staff determines the need for a Basin Plan amendment. Basin Plan amendments can also occur for issues not identified during the triennial.

Basin Plan amendment hearings are advertised in the public notice section of a newspaper circulated in areas affected by the amendment. Persons interested in a particular issue can also notify the Regional Board staff of their interest in being notified of hearings.

Basin Plan amendments do not become effective until approved by the State Board. Surface water standards also require the approval of the Environmental Protection Agency to become effective.

Recommendations made in the Comprehensive Conservation and Management Plan developed for Morro Bay through the National Estuary Program may lead to Basin Plan amendments. Similarly, Total Maximum Daily Loads (TMDL) and associated implementation plans determined for Morro Bay must be incorporated into the Basin Plan through a public hearing process (see TMDL description that follows).

- ◆ **TMDLs** — The Regional Board has classified Morro Bay as impaired for metals, pathogens, and siltation through the listing process required by Section 303(d) of the Clean Water Act. Therefore, USEPA expects a TMDL be developed for Morro Bay. The TMDL determines the amount of pollution that can be discharged into the water body and still maintain water quality standards. A TMDL is a way to quantify pollutant loads from point and nonpoint

sources, and can be used to allocate allowable loads in order to meet water quality standards. TMDL development can be labor intensive and costly. Regional Board staff is participating on a task force of Regional Board, SWRCB, and USEPA staff to develop a statewide strategy for TMDL development and funding.

Another important component of the TMDL is the implementation plan. Best management practices will be incorporated into the implementation plan for Morro Bay. The action plans developed by the Morro Bay National Estuary Program may be appropriate to serve, in part or whole, as the implementation plan needed to address the TMDL. TMDLs and implementation plans are incorporated into the Basin Plan through a public hearing process.

B. Resource Management Activities/Programs

- ◆ **Basin Planning** -- The Basin Plan is a flexible tool which must be reviewed and revised regularly for it to adapt to changing conditions. This occurs through on-going planning via the triennial review process.
- ◆ **Bay Protection and Toxic Cleanup Program (BPTCP)** — The BPTCP was established by the State legislature in 1989 (Sections 13390-13396 of the Porter Cologne Water Quality Control Act). The BPTCP is a statewide program that is coordinated with the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. To meet the goals of the BPTCP, the Regional Board is involved in activities to 1) provide protection of present and future beneficial uses of the bays and estuarine waters in the region, 2) identify and characterize toxic hot spots, 3) plan for toxic hot spot cleanup or other remedial or mitigation actions, and 4) develop prevention and control strategies for toxic pollutants that will prevent creation of new toxic hot spots or the perpetuation of existing ones within the bays and estuaries in the region. A current Proposed Regional Toxic Hot Spot Cleanup Plan was developed and drafted by Regional Board Staff in December, 1997.

The Central Coast Regional Board has identified one toxic hot spot to be addressed under this program. Neither this "hot spot" or the two other candidates are in Morro Bay. Cleanup of the toxic hot spot is addressed in the plan dated December, 1997.

- ◆ **Non-point Source Management** — The Non-point Source Management Program provides for the control and reduction of non-point source pollution to restore and protect water bodies pursuant to Clean Water Act Section 319 and the Coastal Zone Act Reauthorization Amendments of 1990. The Regional Board implements the State's Non-Point Source Management Plan.

This includes implementing a variety of activities to control nonpoint source pollution from urban runoff; agriculture; land disturbance activities (road construction/maintenance, land construction, timber harvesting, and mining), *hydrologic modification*, and individual disposal systems. These activities include outreach, education, public participation, technical assistance, finance assistance; interagency coordination, demonstration projects, grant-funded project solicitation, grant-funded project contract management and regulatory activities such as imposing septic tank area prohibitions.

Regional Board staff implements nonpoint source management in the Morro Bay watershed by participating in the Morro Bay National Estuary Program (assessing priority problems, developing action plans to address problems, providing assistance with implementation of action plans, and developing a long term monitoring program to assess water quality improvements associated with the implementation of actions); implementing the Morro Bay National Monitoring Program project to show long-term effectiveness of rangeland management measures; and convening and directing a technical advisory committee to identify sources of bacteria in Morro Bay, implement remedial actions to reduce bacteria levels, and monitor the effectiveness of implementation actions.

- ◆ **Water Quality Assessment** — The Regional Boards and the SWRCB have maintained a “water quality assessment” database since 1989. The database contains information on water quality conditions and problems for many of the surface and ground waters of the State. The database is updated every two years. The database software is USEPA’s Waterbody System (WBS). Staff uses the updated Regional Board assessments to compile statewide water quality data for it’s biennial reports required by Section 305(b) of the Clean Water Act. The 305(b) report generally categorizes water body classifications by degree of support of designated beneficial uses. The WBS also provides capabilities for updating the biennial report required by Section 303(d) of the Clean Water Act. Section 303(d) requires the Regional Board to list waters that are partially or fully impaired (not supporting beneficial uses, hence not meeting water quality standards) and identify priorities for developing Total Maximum Daily Loads (TMDLs). The listing process currently involves the following activities: 1) public participation at the Regional Board level (circulation of draft lists, receipt of written comments, public hearing on the draft lists, approval by the Board); 2) submission of approved Regional Board lists to the SWRCB; 3) submission of the statewide list to the USEPA; and 4) USEPA approval or disapproval of the list. See the following section on TMDLs.

The information used by Regional Boards staff in compiling and revising the “water quality assessment” includes various types of monitoring data and water quality reports.

- ◆ **Pesticide Management** — The Regional Board provides technical assistance to and permits use by pesticide applicators in accordance with the State Pesticide Management Plan. This Plan was written and is implemented by the SWRCB and the Department of Pesticide Regulation.
- ◆ **CEQA Document Review** — The Regional Board is a responsible agency under the California Environmental Quality Act. Therefore, the Regional Board reviews documents characterizing environmental impacts of various projects generated by CEQA. The Regional Board provides comments to lead agencies regarding impacts to water quality and proposed mitigation measures described for projects in the documents.
- ◆ **Regional Monitoring** — The Regional Board is initiating a program to assess ambient surface and ground water quality conditions. The goals of the program are to characterize the status and trends of the Region’s surface, ground, estuarine, and coastal water quality and associated beneficial uses through ambient monitoring, identify localized effects and

probable pollutant sources through focused monitoring, determine whether water quality standards are being met and beneficial uses are being supported, provide scientifically-based water quality information to users in accessible forms to support decision making, and coordinate with other programs to promote an effective and efficient regional monitoring effort. In the Morro Bay Watershed and elsewhere, the program will include periodic watershed scaled assessments of water and habitat quality, ongoing data management activities, and regular sampling of estuarine habitat for indications of upstream degradation or potential offshore impacts.

The Regional Board, in participation with Cal Poly State University, currently implements a paired watershed study in the Morro Bay Watershed as a project of the U.S. EPA National Monitoring Program to evaluate the effectiveness of Best Management Practice systems in improving water quality. The project contributes to the characterization of the sedimentation rate and other water quality conditions in a portion of Chorro Creek (the main tributary to Morro Bay), and evaluates the overall water quality at select sites in the Morro Bay Watershed. The program is designed as a ten-year program, to continue through 2001.

The Regional Board, with support from the National Estuary Program, also conducts storm water sampling in areas that discharge to Morro Bay and bacteria sampling (for the protection of shellfish and recreation) in the Bay through the Shellfish Technical Advisory Committee mandated by the Shellfish Protection Act.

- ◆ **Watershed Management Initiative** -- The goals and purpose of the Watershed Management Initiative (WMI) are to achieve water quality standards in all of California's watersheds by supporting the development of local solutions to local problems with the full participation of all affected parties. The State and Regional Boards, in partnership with the U.S. Environmental Protection Agency (USEPA), have agreed to develop and implement an integrated planning process to more effectively and efficiently direct the limited State and federal funds to the highest priority activities. Priorities are based on the strategies that each Regional Board has developed to address the watersheds within its boundaries. Statewide priorities are developed by the State Board with the active participation of the Regional Boards and USEPA. It would allow for closer coordination between agencies, and provide technical and finance support for local stakeholders. The strategies and proposed activities of the State and Regional Boards and the USEPA to implement the WMI will be described in an "Integrated Plan." The "Plan" will consist of chapters from each Regional Board. The priority activities affecting Morro Bay are described in the chapter. These activities consist of and are implemented by Regional Board staff's participation in the NEP, and all other activities/programs described in this section.

C. FINANCE MECHANISMS

- ◆ **Clean Water Act § 205(j) Grant Funds** — The RWQCB assists applicants in getting CWA § 205(j) grants for water quality planning projects. These funds are USEPA continuing program grant funds that are awarded to the State by EPA and are either used in “in-house” or as “pass through” grants by other agencies.
- ◆ **Clean Water Act § 319(h) Grant Funds** — The RWQCB assists applicants in getting CWA § 319(h) grants for nonpoint source control implementation projects. These funds are USEPA continuing program grant funds. They are awarded to the State by USEPA and are used as “pass through” grants by other agencies (and not by RWQCB).
- ◆ **Underground Tank Cleanup Fund** — The RWQCB advises responsible parties cleanup cost may be reimbursable. The SWRCB administers the Underground Tank Cleanup Fund per cleanup, less a deductible (zero to \$10,000 based on tank use and size of business owning/operation the tank). Reimbursable activities are investigation and cleanup ordered by oversight agencies (local agencies or RWQCB).
- ◆ **State Revolving Fund** -- The RWQCB directs project proponents to this fund. The SWRCB administers this Federal (USEPA) loan program. The program provides low interest loans to address water quality problems associated with discharges from point and nonpoint source dischargers and for estuary enhancement

D. Other Non-Regulatory Programs

- ◆ **Volunteer Monitoring** -- RWQCB staff coordinates a volunteer monitoring program (as part of the Regional Board's National Monitoring Program and the NEP Monitoring and Public Participation Plans). The water and habitat quality data collected contributes to characterization of problems in the Morro Bay watershed and evaluation of BMP implementation projects. The NEP (with assistance from U.C. Cooperative Extension) makes water self-monitoring test kits available to ranchers and farmers. These are provided to educate and coordinate with land owners, but do not necessarily provide data that contributes to problem characterization.

Board staff provide public education and technical assistance in both formal and informal situations. Formally, every Board Meeting includes receipt of written public comments prior to hearings and a period of public testimony during the meeting. The meeting agendas often include “information” items to inform the public and the Board members of important issues and programs. Informally, staff respond to numerous information requests by telephone and frequently addend meeting and conferences to provide information and assistance on water quality issues. Ongoing and specific issues currently being addressed include 1) the development of a community sewer system in Los Osos; 2) quality of groundwater in various parts of the region; 3) spill response, soil and groundwater cleanup, and public health issues being handled by local agencies with Regional Board oversight; 4) storm water permit compliance issues; 5) best management practices to control nonpoint source pollution; 6) watershed management planning and implementation; and 7) regional monitoring. These activities are funded with USEPA continuing grant funds under authority of CWA § 104.

- ♦ **Inactive Mine Reclamation/Remediation** — The Chorro Creek watershed, one of two creek systems draining to Morro Bay, contains about 30 or 40 inactive chromite mines which operated from about the 1870's through about 1958, the end of the Federal government chromite ore purchase program. The Regional Board, funded partially by a Clean Water Act Section 205 (j) grant, assesses water quality degradation by the mines, characterizes mine related water pollution sources and assists public and private parties with reclamation and remediation of the mines on their land. Currently, no continuous, formal monitoring of the mines and immediate receiving waters is conducted.

IV. ADMINISTRATION

The Central Coast Regional Water Quality Control Board consists of nine part-time members appointed by the Governor for staggered four-year terms. The Regional Board is semi-autonomous from the State Water Resources Control Board. The Regional Board makes water quality decisions for its Region. These decisions can be appealed to the State Board. Members of the Regional Board conduct their business at regular meetings and public hearings at which public participation is encouraged. The agency is divided into six units encompassing five program areas and administrative function that supports the Regional Board staff.

For further information, contact:

Central Coast Regional Water Quality Control Board
81 Higuera St., Suite 200
San Luis Obispo, CA 93401-5427
(805) 542-3147
<http://www.>

S7. State Coastal Conservancy (SCC), Resources Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓					✓	<ul style="list-style-type: none"> Resource Enhancement (Morro Bay Watershed Sedimentation Study, Morro Bay Watershed Enhancement Plan (MBWEP), Morro Bay Watershed Demonstration Projects, Chorro Flats Acquisition and Enhancement, Los Osos Creek Conservation Easement Acquisition and Enhancement) (RM)
✓					✓	<ul style="list-style-type: none"> Agricultural Preservation (Chorro Flats Acquisition and Enhancement, Los Osos Creek Property Conservation Easement Acquisition and Enhancement) (RM)
✓					✓	<ul style="list-style-type: none"> Public Access (El Morro Elfin Forest Acquisition and Enhancement, Sweet Springs Marsh Enhancement) (RM)
					✓	<ul style="list-style-type: none"> Coastal Restoration (Morro Bay Kangaroo Rat Habitat Conservation Plan, Los Osos Greenbelt) (RM)
						<ul style="list-style-type: none"> Urban Waterfront Restoration (City of Morro Bay projects) (RM)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The SCC, established in 1976, is a State agency that protects and improves coastal resources and helps the public get to and enjoy the coast. The Legislature created the SCC as a unique entity with flexible powers to serve as an intermediary among government, citizens, and the private sector in recognition that creative approaches would be needed to preserve California's coast for future generations. The SCC's non-regulatory, problem-solving approach complements the work of the California Coastal Commission. SCC program authorities include the Public Resources Code (P.R.C.) §§ 31000 *et seq.*

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

II. JURISDICTION

The SCC is authorized to provide technical assistance and grants to nonprofit organizations and state and local public agencies for coastal preservation.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

The SCC works to preserve, improve and restore public access and natural resources along the coast and on San Francisco Bay. It builds trails and walkways, purchases threatened coastal land from willing sellers, enhances and restores wetlands and watersheds, protects open space and farmland, supports commercial fishing, helps cities develop and improve waterfronts, and crafts innovative solutions to land use conflicts. The SCC undertakes projects on its own and in partnership with nonprofit organizations, landowners, local governments, and other public agencies.

A. Regulatory Activities/Programs

- ◆ This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

Resource Enhancement:

- ◆ **Morro Bay Watershed Sedimentation Study** — In 1986, the SCC funded the preparation of a sedimentation study that estimated erosion rates, sediment delivery ratios, and erosion reduction potential throughout the Morro Bay watershed.
- ◆ **Morro Bay Watershed Enhancement Plan (MBWEP)** — In 1987, the SCC, in partnership with the Coastal San Luis Resource Conservation District (RCD) and Natural Resources Conservation Service (NRCS), funded and developed the MBWEP. The MBWEP evaluated alternatives to reduce sedimentation in Morro Bay, and recommended a three-phased approach to implementation. The three phases include (1) construction of a series of best management practices demonstration projects on properties throughout the watershed, (2) implementation of a floodplain restoration project on the Chorro Creek drainage, and (3) implementation of a complementary floodplain restoration project on the Los Osos Creek drainage.
- ◆ **Morro Bay Watershed Demonstration Projects** — The SCC provided a grant of \$410,000 to the Coastal San Luis RCD to implement the first phase of the MBWEP, best management practices demonstration projects. Twenty projects were funded through this program. The projects include installation of fencing, stream bank revegetation, development of new water sources for cattle and other measures designed to reduce sedimentation into Morro Bay.

Agricultural Preservation:

- ◆ **Chorro Flats Acquisition and Enhancement** — In 1990, the SCC negotiated the acquisition of the Chorro Flats property from a private landowner and provided a \$1,400,000 grant (\$800,000 from a grant the SCC had received from Caltrans and \$600,000 of SCC funds) to the Coastal San Luis RCD to acquire the property. The SCC also provided \$200,000 for final planning for this project site to convert an existing 129-acre agricultural field to natural floodplain (retaining about 40 acres in agricultural production), and a \$500,000 grant for project implementation (\$300,000 from a grant the SCC had received from Caltrans and \$200,000 of SCC funds). This project will provide a sediment deposition area above the Bay, and will restore riparian habitat.
- ◆ **Los Osos Creek Property Conservation Easement Acquisition and Enhancement** — The SCC, working in conjunction with the NRCS and RCD, purchased a wetlands conservation easement over approximately 111 acres of former agricultural property at the confluence of Los Osos, Warden and Turri Road Creeks. At the same time, the SCC purchased an agricultural conservation easement on 33 acres of cropland that will remain in agricultural production. Wetland habitat has been restored in the wetland easement area, and serves as a passive sediment trap.

Public Access:

- ◆ **El Morro Elfin Forest Acquisition and Enhancement** — The SCC provided \$200,000 toward this \$1,200,000 acquisition and helped negotiate the purchase from a private land owner. The Small Wilderness Area Program (SWAP) was a partner in this project.
- ◆ **Sweet Springs Marsh Enhancement** — The SCC negotiated the transaction that resulted in the donation of the wetlands and some upland habitat by the property owner to the Audubon Society, with the owner retaining less than an acre for construction of two houses. The SCC also provided a grant to the Audubon Society to undertake wetland and upland habitat restoration, trail improvements and interpretive signage.

Coastal Restoration:

- ◆ **Los Osos Greenbelt Plan** — The SCC provided a \$100,000 grant to the Land Conservancy of San Luis Obispo to prepare a greenbelt plan to protect important natural resource and scenic areas and endangered species habitats within and adjacent to the Los Osos/Baywood communities. As of October, 1997, a draft plan has been completed. The plan recommends a variety of measures by which property can be protected including those that would not require outright public acquisition.
- ◆ **Morro Bay Kangaroo Rat Habitat Conservation Plan** — The SCC provided a \$25,000 grant to the County of San Luis Obispo to prepare a Habitat Conservation Plan to protect the endangered Morro Bay Kangaroo Rat. A draft plan was completed but was not adopted by the County because no funds were available from resource agencies to implement the plan.

Urban Water Front Restoration:

- ◆ **City of Morro Bay Projects** — The SCC has provided the following funds to the City of Morro Bay:
 - approximately \$175,000 to improve the street ends along the waterfront for public access purposes;
 - approximately \$245,000 to construct the Morro Bay T-Pier for commercial fishing purposes and public access;
 - \$200,000 to construct access improvements along the central waterfront, including a public restroom;
 - \$200,000 to construct improvements to Tidelands Park.

C. Finance Mechanisms

- ◆ The SCC can undertake projects directly, or provide grants or loans to local and state public agencies, and nonprofit organizations. Grants or loans can be used to acquire land, to implement enhancement projects, to install public accessways, to preserve coastal agriculture, and to rejuvenate urban waterfronts.

D. Other Non-Regulatory Programs

- ◆ The SCC works with local partners to provide incentive programs for coastal protection. The Morro Bay Watershed Demonstration Projects Program with the Coastal San Luis RCD is one example of the type of incentive program in which the SCC participates. In that example, the SCC provided 90% of the implementation cost for each demonstration project, and the landowner was required to contribute 10%, and maintain the project for a 10-year period. Additionally, the SCC acquires property only from willing sellers and can negotiate bargains sales which allow the property owner to claim certain tax deductions.
- ◆ **General technical assistance/workshops** — The SCC provides technical assistance to project partners in order to implement the agency's mission. This assistance includes staff expertise in project management, fundraising and coastal issues, as well as technical consultants retained by the SCC in such areas as biology and hydrology. In addition, the SCC periodically hosts or contributes to workshops on specific issues related to coastal protection (i.e., funding opportunities, wetland protection, watershed planning, and nonprofit operations).
- ◆ **Coast & Ocean** — The SCC publishes a quarterly magazine, *Coast & Ocean*, which provides education and outreach to members of the public interested in coastal issues.
- ◆ The SCC participates in natural resource enhancement and watershed plans in order to identify and design specific enhancement projects.

IV. ADMINISTRATION

The Coastal Conservancy has a staff of 46, led by an Executive Director. A seven-member Board approves Conservancy projects and funding authorizations. Board members include the Secretary of the Resources Agency, the Director of Finance, the Coastal Commission Chairperson, and four public members - two appointed by the Governor, one by the Senate Rules Committee, and one by the Speaker of the Assembly. In addition, the Conservancy has a six-member legislative oversight committee.

For further information, contact:

State Coastal Conservancy

1330 Broadway, 11th Floor Attn: Carol Arnold

Oakland, CA 94612

(510) 286-1015

<http://www.coastalconservancy.ca.gov>

S8. State Lands Commission (SLC)

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
					✓	• State Lands Leases (R)
					✓	• State Lands Dredging Permit (R)
					✓	• Granted Lands (R)
			✓			• Hazard Removal (RM)
			✓			• Derelict Vessels (RM)
			✓			• Contingency Plans (RM)
					✓	• EIR's (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

SLC's mission is to optimize the use of sovereign lands under its jurisdiction. These State-owned areas include tidelands and offshore areas, navigable rivers, and wetlands. The SLC issues permits and/or leases for activities such as marina operations, offshore oil and gas operations, and shoreline protection structure development on State lands. SLC program authorities include: California Public Resources Code, Division 6, Submerged Lands Act, Kapiloff Land Bank Act, and the Public Trust Doctrine.

II. JURISDICTION

When California became a state in 1850, it acquired nearly 4 million acres of land underlying the State's navigable and tidal waterways. These lands, known as "Sovereign Lands", included the beds of 1) more than 120 rivers, streams and sloughs; 2) nearly 40 non-tidal navigable lakes; 3) the tidal navigable bays and lagoons; and 4) the tide and submerged lands adjacent to the entire coast and offshore islands of the State from the mean high tide line to three nautical miles offshore. These "Sovereign Lands" are held by the State in Public Trust for public purposes consistent with the provisions of the Public Trust such as fishing, water dependent commerce and navigation, ecological preservation and scientific study.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)**A. Regulatory Activities/Programs**

- ◆ **State Lands Leases:**-- Public and private entities must acquire a lease for development, such as a marina, along navigable rivers, natural lakes, and bays. If a private individual wishes to

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

construct a recreational pier adjacent to their waterfront residence, they must obtain a lease.

- ♦ **State Lands Dredging Permit** — For work in harbors and waterways both public and private parties must obtain a dredging permit unless the dredged material is to be used for a commercial purpose, then only a royalty is charged.
- ♦ **Other Permits/Leases** — State Lands Commission may require a permit for development on Public Trust lands including marinas, industrial wharves, tanker anchorage's, harvesting of timber, grazing, mining, oil and gas and geothermal development.
- ♦ **Granted Lands** — These lands are monitored by the Commission to ensure compliance with the terms of the statutory grant. These grants encourage development of tidelands consistent with the public trust, while requiring grantees to re-invest revenues produced from the lands back into the lands where they are generated.

B. Resource Management Activities/Programs

- ♦ **Hazard Removal** — To assure public health and safety on beach areas and water ways under its jurisdiction, the Commission has developed an aggressive effort to remove man-made structures which may be hazardous to public health and safety which include remnants of piers, groins and abandoned oil and gas related structures.
- ♦ **Derelict Vessels** — Within the Morro Bay Estuary, one of the most pressing issues regarding water quality is the illegal mooring of live-aboard vessels. Sewage dumping from these vessels impacts water quality as well as local oyster leases. The SLC has worked closely with Fish and Wildlife Services to get the polluters out of the bay and return elevated bacterial levels to normal. Another water quality issue arises from derelict vessels that have simply been abandoned in the bay. Work is currently underway to properly dispose of these aging vessels.
- ♦ **Contingency Plans** -- SLC provides input to the State Oil Spill Contingency Plan developed and administered by DFG and OSPR.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ **Environmental Impact Reports (EIR's)** — The Commission staff often prepare EIR's for land use changes within its jurisdiction, routinely comments on EIR's for projects that affect the State's lands, and reviews permit applications submitted to the California Coastal Commission, and the U.S. Army Corps of Engineers.

IV. ADMINISTRATION

The State Controller, the Lieutenant Governor, and the State Director of Finance serve as ex-officio members of the California State Lands Commission. The first two are statewide elected

officials while the last is a cabinet level officer appointed by the Governor. The Commission is assisted by a staff of more than 200 specialists in mineral resources, land management, boundary determination, petroleum engineering and the natural sciences. The staff is supervised by an Executive Officer appointed by the Commission.

For further information, contact:

State Lands Commission
100 Howe Avenue, Suite 100
Sacramento, CA 95825
(916) 574-1900
<http://www.slc.ca.gov>

S9. State Water Resources Control Board (SWRCB), Cal/EPA

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓		✓	• Total Maximum Daily Loads (TMDLs) (R)
✓	✓	✓	✓		✓	• Regulatory Program Support and Coordination (R)
✓	✓	✓	✓	✓	✓	• Basin Planning Program (R)
✓	✓	✓	✓		✓	• State Water Quality Standards (R)
						• Ocean Standards Program (R)
						• Freshwater and Estuarine Standards (R)
✓	✓	✓	✓		✓	• Quality Assurance (QA) Program (R)
✓	✓	✓	✓	✓	✓	• Nonpoint Source Program (R)
				✓		• Water Rights (R)
			✓			• Department Of Defense Facilities (R)
			✓			• Underground Storage Tanks (R)
✓	✓	✓	✓	✓	✓	• Watershed Management Initiative (RM)
✓	✓	✓	✓			• Water Quality Planning Program [205(j)/604(b)] (RM)
					✓	• Bay Protection and Toxic Cleanup Program (RM)
✓	✓	✓	✓	✓	✓	• Monitoring and Assessment Activities (RM)
						• State Mussel Watch Program (RM)
						• Toxic Substances Monitoring Program (RM)
						• Water Quality Assessment (RM)
✓	✓	✓	✓	✓	✓	• Nonpoint Source Pollution (NPS) Program (RM)
✓	✓	✓	✓	✓	✓	• Coastal Nonpoint Pollution Control Program (RM)
			✓			• Pesticide Management (RM)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

I. MISSION AND AUTHORITIES

The SWRCB's mission is to preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. SWRCB program authorities include the California Water Code (C.W.C.) §§ 3000 *et seq.* (the Porter Cologne Water Quality Control Act of 1969); the Health and Safety Code, Division 20, chapter 6.67; the California Code of Regulations (Title 27, Division 2); and the Federal Clean Water Act (CWA).

II. JURISDICTION

The State Water Resources Control Board is responsible for all waters of the State of California. The mandates of the Board are administered in nine regions of the State divided by major watershed or hydrologic units.

III. FUNCTIONS (regulatory, resource management, finance, non-regulatory)

The SWRCB is responsible for implementing the Clean Water Act in California, including issuing discharge permits, operating the grants program, and setting water quality standards.

A. Regulatory Activities/Programs

- ◆ **Total Maximum Daily Loads (TMDLs)** -- The Federal Clean Water Act requires States to develop lists of waters that do not meet water quality standards, to implement a planning process known as Total Maximum Daily Loads (TMDLs) to address the listed waters and to include the products of the TMDL process in Basin Plans (Section 303(d)). The TMDL process is a determination of the amount of individual pollutants that can be allowed in each water body without exceeding standards and an allocation of responsibility for managing those amounts of pollution. California's Porter Cologne Water Quality Control Act requires that a program of implementation be included in any Basin Plan amendment that establishes water quality standards (Section 13242). TMDLs will often either include a standards action or interpret a standard and therefore, will require implementation programs to be specified as part of the Basin Plan amendments.

The Division of Water Quality includes a full time TMDL Coordinator to directly support the Regional Board's TMDL activities and to ensure TMDLs are developed through a watershed management approach. In general, this position serves to foster communication about TMDLs and Watershed Management, assist with polity development, facilitate development and adoption of TMDLs, and assist with programmatic function such as budget development.

- ◆ **Regulatory Program Support and Coordination** -- The Division of Water quality provides Statewide program management for the following regulatory programs: NPDES including Pretreatment Activities, NPDES Storm Water, Non-Chapter 15 WDR and provides administrative and technical support for the regulatory programs for both the RWQCBs and

the SWRCB. The programs are authorized by the Porter Cologne Water Quality Control Act and the Clean Water Act.

- ◆ **Basin Planning Program** — The SWRCB directed each RWQCB to adopt a water quality control plan (basin plan) pursuant to CWA § 303 and Porter Cologne Water Quality Control Act Section 13050. The Basin Plans incorporate SWRCB plans and policies including the Thermal Plan, Bays and Estuaries Policy, Power Plant Cooling Policy, Nonpoint Source Management Plan, and the Ocean Plan. Basin Plans are flexible tools which must be reviewed and revised regularly to adapt to changing conditions. Clean Water Act Section 303(c) requires states to hold public hearings for review of water quality standards included in the basin plans at least once every three years (the triennial review process). The Porter-Cologne Water Quality Control Act requires each entire Basin Plan to be reviewed periodically. While a major part of the review process consists of identifying potential problems, an important part of the review is the reaffirmation of those portions of the plan where no potential problems are identified. Basin Plan amendments developed by the Regional Boards during the triennial review must be approved by the SWRCB. Basin Plan amendments can also occur for issues not identified during the triennial review such as amendments for urgent issues needed to reflect new legislation. The SWRCB is also involved in “continuing planning” to consider development of additional plans, policies, and programs to support water quality control throughout the State.
- ◆ **State Water Quality Standards** — Section 303 of the Clean Water Act requires the SWRCB to set water quality standards and submit them to USEPA for approval. Standards are set taking into consideration the beneficial uses of the water body and the water quality criteria necessary to support the uses. The SWRCB must consider the following minimum beneficial uses: public water supply, propagation of fish, shellfish and wildlife and for recreational, agricultural, industrial, and navigational purposes. Additionally, the SWRCB develops and enforces anti-degradation provisions to meet water quality standards and to prevent degradation of water quality (Resolution 68-16, “Statement of Policy with Respect to Maintaining High Quality of Waters in California”). The SWRCB conducts public hearings to review water quality standards at least once every three (3) years and revise them if needed. After the Board adopts the standards, the standards are submitted to the USEPA Administrator for review and approval.
- **Ocean Standards Program:** -- The primary function of the Ocean Standards Program (Program) is the maintenance, review, and Proposal of changes (amendments) to the California Ocean Plan(Ocean Plan). In its role of interpreting the Ocean Plan, the Program also provides technical support and recommendations to staff of the RWQCBs on issues related to ocean water quality and issuance of Waste Discharge Requirements to ocean dischargers. The Ocean Plan is mandated under Section 13170.2 of the Porter-Cologne Water quality Control Act (Act) which requires:
 1. The SWRCB formulate and adopt a water quality control plan for ocean waters of the State known as the California Ocean Plan, and
 2. That the Ocean Plan shall be reviewed at least every three years to guarantee that the

current standards are adequate and are not allowing degradation to indigenous marine species or posing a threat to human health.

The Ocean Plan sets physical, chemical, biological, and bacteriological standards for protection of beneficial uses of the State's ocean water. These standards form the basis for preparing NPDES Permits and Waste Discharge Requirements issued by the RWQCBs to ocean dischargers.

Near-coastal waters are the downstream recipient of flow from most of California's watersheds. As such, upstream activities must not adversely affect downstream near coastal waters. Under 40 CFR 131.10(b), the State is required, when designating beneficial uses of a water body and the appropriate water quality objectives for those uses, to consider downstream water quality standards and to ensure that the upstream standards provide for attainment and maintenance of the downstream standards.

- ♦ **Freshwater and Estuarine Standards** -- The primary function of the Freshwater Standards Unit (unit) is the development and review of the California Enclosed Bays and Estuaries Plan (EBEP) and the California Inland Surface Waters Plan (ISWP). These two statewide water quality control plans establish water quality standards for toxic pollutants to protect beneficial uses of the non-ocean surface waters of the State. In addition, the Unit provides technical support to RWQCB staff and other SWRCB units on issues related to estuarine and fresh water quality implementation of water quality standards.

The EBEP is mandated under Section 13391 of the Porter-Cologne Water Quality Control Act (Act). Specifically, this section requires that the SWRCB formulate, adopt, implement, review, and update a water quality control plan for enclosed bays and estuaries. Section 13390 of the Act expresses the legislative intent that the SWRCB and RWQCBs establish programs to: provide maximum protection for existing and future beneficial uses of bay and estuarine waters where toxic pollutants threaten the protection and propagation of aquatic life; and develop effective strategies to control toxic pollutants.

In addition, Section 13170 of the Porter-Cologne Act authorized the SWRCB to adopt Water Quality Control Plans for waters for which water quality standards are required by the Federal Clean Water Act (CWA). Under Section 303(c)(2)(B), amended to the CWA in 1987, states are required to adopt water quality criteria, sufficient to support beneficial uses, for the Section 307(a) priority pollutants for which the U.S. EPA has published criteria under Section 304 (a), is the discharge or presence of these toxic pollutants could reasonably be expected to interfere with the uses of the affected waters. The EBEP and the ISWP are appropriate vehicles in which to comply with requirements of both State and Federal law.

- ♦ **Quality Assurance (QA) Program** -- Quality assurance activities are mandated by Federal regulation (40CFR, Part 205(j)) for all federally funded water quality studies and compliance monitoring that generate environmental laboratory data. The SWRCB has extended these federally required activities to all SWRCB and RWQCB studies involving collection and

analysis of environmental samples. The QA Program provides technical information and expert review of data quality issues relative to the generation and use of environmental data. The Program reviews Quality Assurance Project Plans submitted by Project Managers and provides expert opinions on the resultant data generated by the project. The Program also assists RWQCB staff with their reviews of compliance monitoring data and any investigations into the causes of anomalous values.

The QA Program provides data review assistance and environmental laboratory expertise to RWQCB staff reviewing data and provides staff with training programs. Additionally, the QA Program maintains two contracts relative to quality assurance resources. One is the Statistical Laboratory Contract with U.C. Davis and the other is the Reverence Laboratory Contract with Department of Health Services.

- ◆ **Nonpoint Source Program** -- The Division of Water Quality's Nonpoint Source Program is responsible for statewide program management, and for providing administrative and technical support for the NPS program for both the RWQCBs and SWRCB.

The two primary federal statutes that establish a framework for addressing NPS pollution are CWA Section 319 and CZARA Section 6217. State Authority comes from the Porter-Cologne Water Quality Act.

Components of the Nonpoint Source Program relevant to Morro Bay include:

- Pursuant to CZARA, the "Action Plan" entails a Management Measure Review and development of a 5-year Implementation Strategy and a 15-year Implementation Plan. RWQCB staff will incorporate CZARA requirements into all other nonpoint source aspects of their work, including education and outreach to local communities.
- Pursuant to CWA Section 401, The RWQCB staff review the applications for compliance with State water quality standards. If the RWQCB determines that the project will not violate State Water quality standards, the RWQCB may indicate through waiver of waste discharge requirements the State's intention not to take further action on the CWA Section 401 certification application.
- Pursuant to the Wetlands Program, RWQCB staff are supported through finance incentives to wetland watershed activities through wetlands grants, and by participating with the RWQCBs on regional wetland planning efforts.
- The State Revolving Fund program supports the RWQCB watershed activities by providing a finance incentive to watershed activities that previously did not have such and incentive. Through close coordination with watershed planning efforts, the SRF can now be used to fund the highest priority watershed activities.

- Pesticide control, implemented through the Management Agency agreement with the Department of Pesticide Regulation (DPR), supports the Regional Boards on both the scientific analysis of and voluntary resolution of pesticide impacts.
 - The SWRCB assists with volunteer monitoring by forming regional networks where RWQCBs lack staff resources to perform this activity.
 - SWRCB provides direct assistance to staff working on abandoned mines statewide. Activities include site investigation, water quality monitoring, ownership determinations, etc. They also provide direct assistance to RWQCB watershed initiatives where mine pollution is an issue.
- ♦ **Water Rights** --- Pursuant to Cal Water Code § 102 and 33 Cal.2d 419, the SWRCB has the responsibility of reconciling the administration of water rights. Applicants come to the State for permission to dam, store, divert, and use public stream resources. In 1983, the State Supreme Court declared that the State's waters are subject to a public trust and that the State, as trustee, has a duty to preserve this trust property from harmful diversions by water rights holders. Currently in the Morro Bay watershed, California National Guard holds water rights to Chorro Creek and Chorro Reservoir.
- ♦ **Department of Defense (DOD) Facilities** -- The SWRCB provides program management and administration to the Regional Boards for regulation of DOD facilities. A Memorandum of Understanding exists between the Regional Boards, the SWRCB and the Department of Toxic Substances Control specifying roles and responsibilities in hazardous waste cleanups at DOD facilities where overlap may occur. A Memorandum of Agreement, signed by the U.S. Department of Defense and State Officials, provides State oversight cost reimbursement. Regional Boards and the Department of Toxic Substances Control share regulatory responsibility and reimbursement dollars allocated to the DOD program.
- ♦ **Underground Petroleum Storage Tanks** — The SWRCB administers the activities conducted by the Regional Boards to assist with regulation of underground storage tanks by tracking tank cases and closures and developing guidance and policies related to managing underground storage tanks. The SWRCB also manages the Underground Petroleum Storage Tank Cleanup fund (see description under Finance Mechanisms). The Health and Safety Code, Chapter 6 and the California Code of Regulations, Title 23, Division 3, Chapters 15 - 18 provides the SWRCB, Regional Boards and local agencies authority and the requirements for oversight related to underground storage tanks.

B. Resource Management Activities/Programs

- ♦ **Watershed Management Initiative** -- The goals and purpose of the Watershed Management Initiative (WMI) are to achieve water quality standards in all of California's watersheds by supporting the development of local solutions to local problems with the full participation of all affected parties. The State and Regional Boards, in partnership with the U.S.

Environmental Protection Agency (USEPA), have agreed to develop and implement an integrated planning process to more effectively and efficiently direct the limited State and federal funds to the highest priority activities. Priorities are based on the strategies that each Regional Board has developed to address the watersheds within its boundaries. Statewide priorities are developed by the State Board with the active participation of the Regional Boards and USEPA. It would allow for closer coordination between agencies, and provide technical and finance support for local stakeholders. The strategies and proposed activities of the State and Regional Boards and the USEPA to implement the WMI will be described in an "Integrated Plan." The "Plan" will consist of chapters from each Regional Board, and the State Board. The priority activities affecting Morro Bay are described in the chapter. These activities consist of and are implemented by Regional Board staff's participation in the NEP, and all other activities/programs described in this section.

- ◆ **Water Quality Planning Program [205(j)/604(b)]** -- Sections 205(j)(2) and 604(b) of the federal Clean Water Act (CWA) authorize the set-aside of a portion of the CWA's annual State Revolving fund appropriation to assist states and local governments with water quality planning. The CWA requires that at least 40% of these planning funds be passed through to "regional comprehensive planning organizations," generally meaning local (not state government) public entities. Use of these funds are limited by law to water quality planning activities, including monitoring work.

In accordance with guidance from U.S. EPA and the State Board's Watershed Management Initiative committee, a significant proportion of the available 205(j) funds have been awarded for the purpose of preparing local Watershed Management Plans. Typical recipients of these funds have been Resource Conservation Districts and other local agencies who have indicated a commitment to broad-based watershed planning, and the program has required that the plan's development be a cooperative venture with full stakeholder involvement.

These projects are assured of targeting watersheds designated as high priority by the RWQCBs, as each RWQCB consults with prospective applicants before submittal of project proposals, and determines the regional ranking of projects proposed within its region.

- ◆ **Bay Protection and Toxic Cleanup Program** -- The SWRCB established the Bay Protection and Toxic Cleanup Program in response to legislation enacted in 1989 (Chapter 269; Senate Bill 475 Torres) which added Chapter 5.6, Sections 13390 through 13396, to the California Porter-Cologne Water Quality Control Act. The Bay Protection and Toxic Cleanup Program is a statewide program to identify toxic hot spots in surface water. The program is coordinated with the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. To meet the goals of the BPTCP, the SWRCB develops and reviews the Program's goals and activities as needed, administers the Program, and coordinates the program activities of the nine Regional Boards.
- ◆ **Monitoring and Assessment Activities** -- The Monitoring and Assessment activities provide information to the State and Regional Boards, the public, and the U.S. EPA on the state of the state's waters. The program administers three of the most widely relied upon water quality monitoring programs used by Regional Boards to identify impaired waterbodies and the

causes of impairment: Toxic Substances Monitoring Program (TSMP), State Mussel Watch Program (SMWP), and Toxicity Testing Program (TTP). Activities of the Program include compiling water quality monitoring and assessment data for fresh, estuarine, ocean, and ground waters, as well as a yearly beach closures report to the legislature. The Program provides technical assistance to Regional Boards, other agencies, local groups and other Division Programs for watershed monitoring and assessment. Assistance includes study design, coordination among participants, field monitoring, reporting, and project evaluation.

The WMI states that the key to watershed management is the identification of problem substances and practices and identification of where they are creating problems in the watershed. TSMP, SMWP, and TTP are used by Regional Boards to identify impaired waterbodies and the substance or action causing the impairment as a basis for listing a waterbody on the 303(d) list of impaired waterbodies.

- ♦ **State Mussel Watch Program** — SWRCB administers this water quality monitoring program. Mussels are collected along the California coastline, including in Morro Bay, and are analyzed for various toxic pollutants (e.g., organic compounds and metals). DFG conducts all the sampling and analysis for this SWRCB program. Results are reported to the SWRCB on an annual basis.
- ♦ **Take of Fish and Wildlife** -- The State Water Resources Control Board (SWRCB) must notify DFG of all applications to appropriate water. DFG then must recommend the amount of water, if any, required to preserve and enhance fish and wildlife.
- ♦ **Toxic Substances Monitoring Program** — SWRCB administers this water quality monitoring program which is closely linked to the State Mussel Watch Program. This program investigates levels of toxins in fish, including some collected from the Morro Bay watershed. DFG conducts all the sampling and analysis for this SWRCB program.
- ♦ **Water Quality Assessment** -- The SWRCB, along with the Regional Boards, has maintained a "water quality assessment" database since 1989. The database contains information on water quality conditions and problems for many of the surface and ground waters of the State. The current database software is USEPA's Waterbody System (WBS). The SWRCB uses Regional Board assessments to compile statewide water quality data for its biennial reports required by Section 305(b) of the Clean Water Act. The SWRCB also uses information in the Water quality Assessment to prioritize proposals affecting specific water bodies. The 305(b) report generally categorizes water body classifications by degree of support of designated beneficial uses. The WBS also provides capabilities for updating the biennial report required by Section 303(d) of the Clean Water Act. The SWRCB must approve or disapprove the lists of impaired waters submitted by Regional Boards and submit approved lists to USEPA, pursuant to Section 303(d).
- ♦ **Nonpoint Source Pollution (NPS) Program** — The SWRCB implements and administers the State's NPS Program. The California NPS Management Plan outlines a three-tiered approach for managing NPS pollution: Tier 1, Voluntary Implementation of Best Management Practices, Tier 2, Regulatory-Based Encouragement of Best Management Practices, Tier 3, Effluent Limitations. SWRCB staff are involved in the following activities

as part of this approach: (1) information clearing house, (2) technical assistance and evaluation, (3) finance assistance, (4) education and training, (5) coordination of government and private sector watershed management efforts, and (6) pilot watershed projects. The Nonpoint Source Pollution Program also includes efforts in the areas of monitoring and assessment, planning and standards, onsite disposal systems, pesticide management, grazing, boating and marinas, urban runoff, and hydromodification.

- ◆ **Coastal Nonpoint Pollution Control Program** — An “action plan” has been developed to assist the SWRCB in complying with CZARA requirements and to improve the Nonpoint Source Program. The “plan” includes identification of management measures and authorities; existing programs, strategies, and implementation plans; and existing BMPs and BMP guidance. Incremental implementation of the management measures will occur through prioritization and targeting by the SWRCB based on coastal waters focus; 303 (d) listed waters; management measures; and opportunities to build off of existing programs.
- ◆ **Pesticide Management** — The California Water Code states that with USEPA continuing program grant funds under CWA § 104 (b)(3), the State and Regional Boards are the principal state agencies with primary responsibility for the coordination and control of activities related to water quality issues from pesticide use. The California Pesticide Management Plan, written by the SWRCB and the Department of Pesticide Regulation, contains provisions for outreach programs, compliance with water quality standards, ground and surface water protection programs, self-regulatory and regulatory compliance, interagency communication, and dispute and conflict resolution. The SWRCB is involved in various activities described in the Plan and oversees Regional Board activities implementing the Plan. A representative from the SWRCB participates in the Pesticide Registration and Evaluation Committee administered by DPR. The committee reviews, reevaluates and proposes pesticide regulations.

C. Finance Mechanisms

- ◆ **State Revolving Fund** -- The SWRCB administers this Federal (USEPA) loan program. The program provides low interest loans to address water quality problems associated with discharges from point and nonpoint source dischargers and for estuary enhancement. Municipalities are eligible for these loans to address point source discharges, while both public and private entities are eligible for these loans to address nonpoint source discharges. The SWRCB solicits and prioritizes projects, reviews proposals for applicability, develops contracts, assures compliance with State and Federal requirements, and issues progress payments and collects repayments.
- ◆ **Clean Water Act § 205(j) Grant Funds** — The SWRCB, with support from the Regional Boards, administers grant project proposal solicitation, proposal evaluation and selection, grant awards, and contract development and management of CWA § 205(j) grants for water quality planning projects. These USEPA Continuing Program Grant funds are awarded to the State annually.

- ♦ **Clean Water Act § 319(h) Grant Funds** — The SWRCB, with support from the Regional Boards, administers grant project proposal solicitation, proposal evaluation and selection, grant awards, and contract development and management of CWA § 205(j) grants for water quality planning projects. These USEPA Continuing Program Grant funds are awarded to the State annually.
- ♦ **Underground Petroleum Storage Tanks** — The SWRCB administers the Underground Petroleum Storage Tank Cleanup fund. The money for the fund is generated by a fee paid for each gallon of petroleum delivered to tanks. Owners and operators of tanks may draw upon the fund after paying for the initial \$10,000 in cleanup costs. The fund will pay up to \$990,000 per cleanup.

D. Other Non-Regulatory Programs

- ♦ **California Stormwater Best Management Practice Handbooks** -- Developed by the SWRCB's advisory Stormwater Quality Task Force, these handbooks present management practices which would help to preserve natural hydrology.

IV. ADMINISTRATION

The State Water Resources Control Board is comprised of five full-time, appointed voting members. The agency is divided into four divisions encompassing three program areas and an administration function that supports the State Board, as well as the nine Regional Boards. Additionally, the State Board has a number of offices: The Executive Office, the Office of Chief Counsel, Office of Legislative and Public Affairs, Affirmative Action Office, and the Office of Statewide Consistency.

For further information, contact:

State Water Resources Control Board
901 P Street
Sacramento, CA 95814
(916) 657-2390
<http://www.swrcb.ca.gov>

Secondary Agencies:

S10. California Conservation Corps, Resources Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	(✓ if any agency activities apply)
✓	✓	✓	✓	✓	✓	• Labor Force (RM)
✓	✓	✓	✓	✓	✓	• Emergency Response (RM)
✓	✓	✓	✓	✓	✓	• Environmental Education (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

The California Conservation Corps has a dual mission: employment and development of youth and the protection and enhancement of the states natural resources. CCC crews tackle natural resource work in both urban and rural areas, providing sources related to wilderness preservation, planing trees, cutting trails, or clearing streams. Project work performed by the CCC must meet three basic criteria: 1) have environmental or natural resource benefits, 2) provide public benefits and or use, 3) give Corp members an opportunity for on the job training and provide basic skills..

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

The CCC has no regulatory authority.

B. Resource Management Activities/Programs

Resource management projects/programs/activities related to estuarine protection:

- ♦ CCC provides labor force for all agencies in conducting various Natural Resource Management/Protection Projects, including mitigation, erosion control, reforestation, riparian projects, fencing, etc.
- ♦ Corpsmembers respond to emergencies such as fires and oil spills, and have special training that includes HAZWOPER, flood fighting, and fire fighting certification.
- ♦ Facilities-CCC has a residential camp located within the watershed at Camp San Luis Obispo. The Camp includes a Greenhouse Program, meeting rooms, and base operations for the CCC.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- > Sediment = rapid sedimentation
- > Bacteria = increased bacterial concentrations
- > Nutrients = increased nutrient concentrations
- > Heavy Metals + = increased heavy metal/toxins concentrations
- > Reduced Flow = freshwater flow reductions
- > Habitat Loss = adverse impacts to wildlife habitat

C. Other Non-Regulatory Programs

- ♦ **Community Service:** The CCC requires each Corpsmember to complete forty hours of Community Service each year.
- ♦ The CCC is affiliated with the Americorps and Cadre Programs. These Programs organize and implement volunteer projects for the community.
- ♦ **Americorps:** Provides Environmental Education to Alternative High Schools
- ♦ **Flood Fighting Demos:** The CCC provides flood Fighting Demonstrations to the public.
- ♦ **Public Education Presentations:** The CCC provides environmental education presentations to high schools. Along with California Integrated waste Management Program the CCC has developed a Use Oil Recycling awareness presentation that has been delivered in most of California's high schools. These programs can also be given at general community events.

IV. ADMINISTRATION

The Central Coast CCC operates out of its San Luis Obispo facility. The district has a corp member advisory board that provides input on various program issues related to the area.

For further information, contact:

California Conservation Corps
Central Coast Service District
Camp San Luis Obispo Bldg. 1530
P.O. Box 1380
San Luis Obispo, CA 93406
(805) 549-3561

California Conservation Corps
1719 24th Street
Sacramento, CA 95816-7114
(916) 341-3100
<http://www.ccc.ca.gov>

S11. California Integrated Waste Management Board (CIWMB), Cal/EPA

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
	✓		✓			• Solid Waste Facility Permits (R)
			✓			• Waste Tire Facilities Permits (R)
	✓		✓			• Diversion, Planning, and Local Assistance (RM)
	✓		✓			• Solid Waste Disposal and Codisposal Site Cleanup Program (F)
			✓			• Grant Programs (F)
			✓			• Used Oil Certification (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

CIWMB's mission is to protect public health and safety and the environment through waste prevention, waste diversion, and safe waste processing and disposal. CIWMB provides grants, information, and education programs that are designed to change public, business, and agency habits and decision-making processes so that they reflect an awareness of the environmental and economic consequences of excessive waste generation. Program authorities include Public Resources Code §§ 40400-49620 and California Code of Regulations, Title 14, Division 7 & Title 27, Division 2. Programs related to estuarine protection include those listed below.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)**A. Regulatory Activities/Programs**

- ♦ **Solid Waste Facility (SWF) Permits** — CIWMB staff (1) review permit applications for the operation of SWFs; (2) review permitted SWFs for compliance with State standards; (3) oversee implementation of CEQA review of SWFs; (4) administer a Statewide remediation program for orphaned, illegal, and abandoned sites; (5) certify Local Enforcement Agencies (LEAs) to administer provisions of the permitting, inspection, and enforcement programs, and (6) assist LEAs to ensure safe disposal and handling of solid wastes. Primary considerations in issuing SWF permits are: (1) prevent environmental damage, (2) provide long-term protection of the environment, and (3) ensure that facilities operate in compliance with State standards and finance assurance requirements for protection of public health and the environment.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

- ♦ **Waste Tire Facilities (WTF) Permits** — CIWMB staff oversee implementation of the WTF permit process. State law requires persons who store or stockpile more than 500 waste tires at a site to acquire a WTF permit from the CIWMB and to comply with technical standards for the safe storage of waste tires.

B. Resource Management Activities/Programs

- ♦ **Diversion, Planning, and Local Assistance** — CIWMB staff assist local governments in meeting the requirements of the California Integrated Waste Management Act. Under this Act, 50% of waste generated Statewide must be diverted from landfills by the year 2000. CIWMB Staff provide model planning documents, workbooks, and catalogs to help local jurisdictions, school districts, and other public sector institutions in their diversion efforts (including waste prevention, reduction, reuse, recycling, composting, and safe disposal of used oil and HHWs).

C. Finance Mechanisms

- ♦ **Solid Waste Disposal and Codisposal Site Cleanup Program** — Under this program, CIWMB may provide funds directly to local governments for cleanup or emergency actions, provide loans to responsible parties who demonstrate the ability to repay state funds, or provide matching grants to local governments to assist in remediation of environmental problems in landfills. CIWMB recently approved a \$300,000 grant to clean up the **Morro Bay Burn Dump**, to include the removal of burn ash and trash (e.g., abandoned metal, tires, and appliances), and the repair of portions of the property damaged by flooding in 1997.
- ♦ **Grant** — CIWMB awards grants for projects related to waste management. The agency maintains a database where users can obtain information on CIWMB grant programs.
 - **Enforcement Assistance Grants** — CIWMB provides grant funds to LEAs to assist in their SWF permit and inspection program. Available grants total \$1.5 million annually.
 - **Household Hazardous Waste (HHW) Grants** — CIWMB awards competitive grants to California cities, counties, and local agencies to implement new or to expand existing programs that emphasize HHW waste/source reduction or HHW reuse/recycling. Funding priorities include regional programs, small cities, and rural and under-served areas.
 - **Used Oil Grants** — Used oil grants provided by CIWMB include nonprofit grants, opportunity grants, recycling block grants, and research grants.
 - **Waste Tire Grants** — CIWMB awards grants to local agencies for the purpose of diverting tires from landfills by promoting markets of recycled-content products. Examples include the Playground Cover grant, Molded Rubber Products grant, Pilot Waste Tire Grant Program, and Local Government Waste Tire Cleanup Matching Grant Program.

Other Non-Regulatory Programs

- ♦ **Used Oil Certification** — CIWMB certifies new collection centers and provides incentives to existing certified collection centers who provide a convenient location for “do-it-yourselfers” to bring their used motor oil for proper disposal or re-refining.

IV. ADMINISTRATION

For further information, contact:

California Integrated Waste Management Board
8800 Cal Center Drive
Sacramento, CA 95826
(916) 255-2200

[http:// www.ciwmb.ca.gov](http://www.ciwmb.ca.gov)

S12. California National Guard (CNG), Military Department**Camp San Luis Obispo**

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓			• Stormwater Pollution Prevention Plan (RM)
✓	✓	✓	✓			• Land Management Plan for Camp SLO (RM)
✓	✓	✓	✓	✓	✓	• Integrated Natural Resources Management Plan (RM)
✓	✓	✓	✓	✓	✓	• Integrated Training Area Management (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

The CNG defines its mission in accordance with its federal, State, and community responsibilities and authorities: (1) its federal mission is to provide mission-ready forces to the federal government; (2) its State mission is to protect the public safety of the citizens of California by providing military support to the civil authority during natural disasters and other emergencies; and (3) its community mission is to provide service and support to the local communities in which the National Guard lives.

In the Morro Bay watershed, CNG is a major landholder and has a small residential population at **Camp San Luis Obispo** in the Chorro Creek sub-watershed. CNG holds water rights to Chorro Creek and Chorro Reservoir, and operates the reservoir for the benefit of several entities. In addition, CNG works with the Bureau of Mines Restoration on projects associated with abandoned mines, including habitat restoration and runoff control (thus minimizing runoff of heavy metals and sediment).

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)**A. Regulatory Activities/Programs**

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

Resource management programs related to estuarine protection include those listed below.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

- ◆ **Stormwater Pollution Prevention Plan (SWPPP)** — CNG is covered by an NPDES General Stormwater Discharge Permit for industrial activity on Camp San Luis Obispo lands. The RWQCB has regulatory oversight for compliance with this permit. Camp San Luis Obispo has inactive mines and landfills, numerous high gradient roads, overgrazed range land, abandoned underground tank sites, heavy vehicle maintenance and training facilities, and numerous lessees whose activities affect water quality. CNG is developing, and continues to modify a SWPPP that will include measures for controlling runoff and/or erosion from roads, abandoned mines, vehicle storage facilities, and other sources of pollution.
- ◆ **Land Management Plan for Camp San Luis Obispo (April, 1994)** — This plan, prepared by the Natural Resources Conservation Service (NRCS), presents resource concerns/impacts, and recommends alternatives to implement resource enhancement measures aimed at reducing sedimentation and improving the water quality of Chorro Creek, Chorro Reservoir, and Morro Bay. Recommended treatments will increase protective plant cover on grassland areas and reduce the extent of weedy plant species at Camp San Luis Obispo. Implementation of the Plan to date has resulted in the revision of a grazing lease, installation of fencing, and regarding of several roads. The California Military Department provided NRCS with a grant to prepare the Plan for the purpose of providing information to evaluate effects of past and current land uses on the camp and to make informed decisions on land use.
- ◆ **Integrated Natural Resources Management Plan (INRMP)** — As required by the Sikes Act (Public Law 86-797) and federal regulations (32 CFR Chapter 1, Part 265), an INRMP is being prepared for Camp San Luis Obispo. The INRMP will be used as a comprehensive planning document which will incorporate ITAM data and studies, identify the status of inventory of natural resources (LCTA), and identify land rehabilitation requirements related to erosion control and restoration. The focus will be on how to achieve the Camp's desired future condition over the years 1998-2002. The plan includes the following: (1) an **inventory**, including GIS maps and aerial photographs, of soils, wetlands, floodplains, erosion potential, vegetation, wildlife, and threatened/endangered species; (2) **land restoration** (including erosion control and reseeding with native stock); (3) **ecosystem management** (e.g., research, avoidance of forest fragmentation/over-grazing, off-road vehicle restrictions, low maintenance, and compatible outdoor recreation uses); (4) **environmental compliance** (related to CWA §401 (erosion) and §404 (wetlands), the Endangered Species Act, and other laws and regulations); (5) **natural resources awareness** (e.g., through wetlands/endangered species identification courses and natural areas education); and (6) **matching of military training loads** with environmental constraints to emphasize avoidance rather than costly restoration or mitigation.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ **Integrated Training Area Management (ITAM)** — ITAM is a key part of the Army's commitment to environmental stewardship. ITAM's environmental goals include: (1) integrate environmental planning procedures into all operations; (2) protect natural/cultural resources; (3) ensure that operations comply with environmental standards; and (4) prevent future pollution and hazardous waste/toxic releases. ITAM Program components are listed below.
 - The **Land Condition Trend Analysis (LCTA)** component is a relational database and GIS used to support land use planning decisions. LCTA contains physical and biological resources data from land used for training activities. The data are intended to provide information to effectively manage land use and natural/cultural resources.
 - The **Land Rehabilitation and Maintenance (LRAM)** component plans, designs and conducts land rehabilitation and maintenance projects based on identified requirements and priorities.
 - The **Environmental Awareness (EA)** component uses educational opportunities to improve land users' understanding of the impacts their activities have upon training lands.
 - The **Training Requirements Integration (TRI)** component integrates requirements for land uses based on training/readiness requirements, in coordination with the natural and cultural resource conditions of the installation's lands.

For further information, contact:

Camp San Luis Obispo
P.O. Box 8104
San Luis Obispo, CA 93403-8104
(805) 238-8418
<http://www.calguard.ca.gov/caot/cslo.htm>

California National Guard
9800 Goethe Rd.
P.O. Box 269101
Sacramento, CA 95826-9101
(916) 854-3000
<http://www.calguard.ca.gov>

S13. Department of Boating and Waterways (DBW), Resources Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓		✓			<ul style="list-style-type: none"> • Beach Erosion Control Program (R) • Clean Vessel Act of 1992, Pumpout Grant Program (F) • Other Mechanisms (F) • Educational Programs, Publications & Materials (NR) • Coastal Data Information Program (RM) • Technical Assistance (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

DBW's mission is to improve access to the water for the recreational boating public and to make sure that boating is as safe as possible. DBW coordinates with local governments to develop local and State boating facilities, promotes boating safety and education, assists local agencies in the construction of shoreline protection projects, and works to improve water quality through the promotion and design of pumpout stations in marinas. DBW program authorities include the California Harbors and Navigation Code §§ 1 *et seq.* The agency's grant programs are derived from the Federal Clean Vessel Act of 1992. DBW has no statutory environmental regulatory programs; however, the agency sponsors boating law enforcement to ensure that California boating laws are enforced uniformly throughout the State. DBW also plans, designs, finances, and constructs boating facilities throughout the State Park System, State Water Project reservoirs and on other State lands. Other programs related to estuarine protection include those listed below.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)**A. Regulatory Activities/Programs**

- ♦ **Beach Erosion Control Program** — DBW is the lead State agency for coastal erosion control. Agency objectives include: (1) to preserve and protect the shoreline, (2) to minimize economic losses caused by beach erosion, and (3) to maintain much-needed recreational beaches. The agency reviews and addresses individual project requests on a site-specific basis.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

B. Resource Management Activities/Programs

- ♦ **Coastal Data Information Program (CDIP)** — DBW has developed scientific methods for studying coastal processes such as real-time wave data gathered by the CDIP. The Program is currently using the instrumentation and technology developed by the Department to monitor wave action. Research on currents and waves in harbors and harbor entrances has been published in scientific journals and is used worldwide. The program routinely supports graduate student work and training.

C. Finance Mechanisms

- ♦ **Clean Vessel Act of 1992, Pumpout Grant Program** — In 1992, the U.S. Congress passed the Clean Vessel Act to help reduce pollution from vessel sewage discharges into U.S. waters. The DBW administers the Pumpout Grant program which helps to fund the construction, renovation, operation, and maintenance of pumpout and dump stations to service pleasure craft. Clean Vessel Act funds are available to both the public and private sector, including local governmental entities and private businesses that own and operate boating facilities that are open to the general public. The Grant reimburses recipients for up to 75% of the installed cost of pumpout and dump stations. This includes the cost of new equipment, or the renovation of existing equipment, as well as necessary pumps, piping, lift stations, on-site holding tanks, pier/dock modifications, signs, permits and other miscellaneous equipment needed for a complete and efficient station. The grant recipient must provide at least 25% of the installed costs; the match can be cash, the fair market value of any labor or materials provided, or a combination thereof.
- ♦ **Other Finance Mechanisms** — DBW's budget includes funds for public sector boating facility construction loans, public sector boat launching facility grants, private sector marina construction loans, capital outlay projects, and beach erosion control projects. To insure that California's waterways are adequately protected through local law enforcement agencies, DBW provides supplemental State funding to local governments for marine patrols.

D. Other Non-Regulatory Programs

- ♦ **Educational Programs, Publications & Materials** — DBW provides an **Aquatic Safety Educational Program (AquaSMART)** for students in grades K-12 in all California public schools. DBW also provides educational materials regarding vessel pumpout locations and use, as well as free pamphlets that review State and federal marine pollution laws. Examples of these materials are provided below.
 - **Vessel Pumpout Locator Cards** — show the location of vessel sewage pumpout facilities and pumpout stations for areas that include San Luis Obispo.
 - **Shipshape Sanitation, MSD's and Pumpouts** — explains laws and regulations regarding Marine Sanitation Devices (MSD's), vessel sewage discharge, and the importance of proper disposal.
 - **Clean Vessel Act** — explains requirements and laws regarding the Clean Vessel Act.

- **Federal Water Pollution Control Act** — describes the federal law that requires all boats 26 feet or greater to display an Oily Waste Discharge Placard in the engine compartment or near the fuel pumping station.
- **MARPOL Annex V** — provides a summary of this law which governs the disposal of plastic debris. This summary, which is available on information placards, is required to be prominently displayed by all boats over 26 feet in length.
- ♦ **Technical Assistance** — Limited technical assistance is available through DBW personnel responsible for administering the various DBW programs.

IV. ADMINISTRATION

For further information, contact:

Department of Boating and Waterways
1629 S St.
Sacramento, CA 95814-7291
(916) 445-2616
<http://www.dbw.ca.gov>

S14. California Department of Conservation (DOC), Resources Agency➔ **Office of Land Conservation**➔ **Office of Mine Reclamation & State Mining and Geology Board**➔ **Division of Oil, Gas, and Geothermal Resources (DOGGR)**

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
						• Farmland Mapping and Monitoring Programs (RM)
						• GeoSAR (RM)
						• Soil Resource Protection Program (RM)
✓	✓		✓			• Agricultural Land Stewardship Program (NR)
						• Williamson Act Program (NR)
						• Finance Mechanisms/Voluntary Initiative/Technical Assistance (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

DOC's mission is to provide stewardship for the State's resources by fostering the wise use of State land, energy and minerals through policy direction, education, regulation, and dissemination of information about agricultural/open space lands, soil, geology/seismology, recycling, and mineral, geothermal and petroleum resources. DOC activities are key to decision-making and regulation for land use planning, resource management, resource conservation, sustainable economic development, and public safety.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)**A. Regulatory Activities/Programs**

This agency does not implement any regulatory activities or programs.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

B. Resource Management Activities/Programs

DOC programs related to estuarine protection include those listed below.

- ♦ **Farmland Mapping and Monitoring Program (FMMP)** — The FMMP monitors land use change affecting California's agricultural land, and produces and provides maps and statistical data used for assessing and planning California's agricultural resources. Data are routinely provided to the private sector, local, State, and federal agencies. Agricultural land is rated according to soil quality and irrigation status. High altitude aerial photographs, computer mapping systems, public review, and field reconnaissance are used to map 47 counties covering 43 million acres every two years. It is the only Statewide land use inventory conducted on a regular basis that identifies agricultural and urban land conversions.
- ♦ **GeoSAR** — GeoSAR is a team project to develop a commercial airborne, radar-based, terrain mapping system using technology developed by NASA and the federal Advanced Research Projects Agency (ARPA). The project team consists of the ARPA Sensor Technology Office, NASA's Jet Propulsion Laboratory at the California Institute of Technology, Calgis Inc. (a small business), and the DOC which brought together the GeoSAR team.
- ♦ **Soil Resource Protection Program** — The DOC implements the State's Soil Conservation Plan for Ca. This program identifies ways to deal with soil resource problems such as soil erosion, soil salinity and soil contamination. DOC staff provide technical assistance to Resource Conservation Districts and other local, state and federal agencies and to the public to support soil and related resource conservation.

C. Finance Mechanisms

This agency does not implement any financial mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ **Agricultural Land Stewardship Program (ALSP)** — DOC administers the ALSP. The ALSP is a voluntary program intended (1) to encourage long-term, private stewardship of agricultural lands; (2) to protect continuation of farming and ranching operations; (3) to protect the agricultural economy of rural communities; (4) to encourage orderly and efficient urban growth; and (5) to encourage improvements that enhance long-term sustainable agricultural uses.
- ♦ **Williamson Act Program** — DOC implements programs pursuant to the Act. The Williamson Act is a voluntary land conservation program created in 1965 to balance pressures of urban growth by providing incentives for farmers and ranchers to remain in agriculture. The Act has several purposes: (1) to preserve farmland for a secure food supply for the State and Nation and for future generations; (2) to maintain agriculture's contribution to local and state economic health; (3) to provide economic relief to tax-burdened farmers and ranchers; (4) to promote orderly city growth, and discourage

leapfrog development and premature loss of farmland; and (5) to preserve open space for its scenic, social, aesthetic and wildlife values. Approximately 50% of the State's 30 million acres of agricultural/open space land, and nearly 70% of the State's prime agricultural land, is currently protected under the Williamson Act. The Act is estimated to save agricultural landowners from 20% to 75% in property tax liability each year (when land is enrolled in a Williamson Act contract, landowners are taxed at a lower rate, using a scale based on the actual use of the land for agricultural purposes versus its unrestricted market value).

- ◆ **Finance Mechanisms/Voluntary Initiative/Technical Assistance** -- ALSP provides funds for cities, counties and nonprofit land trusts to purchase development rights ("conservation easements") on eligible land from agricultural owners, to improve agricultural land protected by conservation easements, and to obtain technical assistance. A minimum of 90% of available funds must be used to acquire easements; a maximum of 10% may be used for land improvements and technical assistance.

IV. ADMINISTRATION

DOC offices with responsibilities applicable to priority problems identified in the Morro Bay watershed include those offices listed below.

- **The Office of Land Conservation** manages four State programs that monitor and protect farmland and soil resources: Agricultural Land Stewardship Program, Farmland Mapping and Monitoring Program, Soil Resource Protection Program, and Williamson Act Program.
- **The Office of Mine Reclamation (OMR)** administers the Surface Mining and Reclamation Act to ensure environmental protection and reclamation of mined lands. OMR provides assistance to cities, counties, state agencies and mine operators for reclamation planning.

The Division of Oil, Gas, and Geothermal Resources (DOGGR) supervises the drilling, operation, maintenance and abandonment of oil, gas and geothermal wells to safeguard the public, the environment, and energy resources. DOGGR has direct regulatory authority over specified oil and gas operations in State Tidelands or onshore.

For further information, contact:

Department of Conservation
801 K Street
Sacramento, CA 95814
<http://www.ca.gov>

Divisions within the DOC include:

- **Land Conservation**
(916) 324-0850
- **Mine Reclamation**
(916) 323-9198
- **Oil, Gas and Geothermal Resources**
(916) 445-9686

S15. California Department of Forestry and Fire Protection (CDF), Resources Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓		✓		✓	✓	• Timber Harvest Plans (RM)
✓		✓		✓	✓	• Sustained Yield Plans (RM)
✓				✓	✓	• Fire and Resource Assessment Program (RM)
✓					✓	• California Fire Plan (RM)
					✓	• Forest Stewardship and Stewardship Incentive Program (NR)
					✓	• Pine Pitch Canker Task Force (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

CDF protects the public from fires, responds to emergencies, and protects and enhances forest, range and watershed values that provide social, economic and environmental benefits to rural and urban citizens. CDF is responsible for managing fire protection services for wildlands, regulating logging practices, and providing assessments of the State's forest and rangeland resources. Under the Forest Practices Act of 1973, CDF is required to regulate private and State forest activities in a manner that will result in the maximum sustainable yield of high quality timber products, while maintaining water quality and fish and wildlife populations. It also plans, regulates and executes controlled burns to remove vegetative hazards and improve wildlife habitat and prevent degradation of water resources. CDF program authorities include the Forest Practice Act of 1973, Forest Practice Rules and relevant sections of the Public Resources Code, Fish and Game Code, and State Endangered Species Acts. Programs related to estuarine protection include those listed below.

- ♦ CDF reviews **Timber Harvest Plans (THPs)** submitted by private landowners and logging companies who want to harvest trees on their property. Through an **Management Agency Agreement (MAA)** with the **State Water Resources Control Board (SWRCB)**, CDF imposes silviculture best management practices and requirements on THPs. Additionally, CDF has post wildfire recovery plans which include re-seeding and mulching to reduce erosion and sedimentation.
- ♦ CDF also reviews **Sustained Yield Plans (SYPs)** submitted by timberland owners who

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

want to harvest trees on their property. SYPs are one of the mechanisms that timberland owners can use to meet the State's requirement for maintaining maximum sustained production. SYPs must include projections of timber growth and harvesting over a 100-year or longer planning horizon, assessment of watershed and wildlife resources, and constraints of other resource values on timber production. Issues and mitigation measures that are adequately covered in an approved SYP may be addressed in individual THPs by reference to the SYP. Following approval, an SYP is in force for a period of 10 years.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

- ♦ CDF's **Fire and Resource Assessment Program (FRAP)** is the strategic planning and resources assessment arm of the agency. In this critical role, FRAP: (1) analyzes trends in the State's natural resource systems, in economic and social environments, and public needs; (2) identifies alternative programmatic responses to these changes; and (3) continues former responsibilities for monitoring and assessment of condition and the availability of wildland resources at a Statewide level. This responsibility includes the development of computerized geographic information system (GIS) databases and analysis software. (Information about FRAP's projects, data, tools and publications can be obtained at <http://frap.cdf.ca.gov>).
- ♦ The *California Fire Plan* puts human and information systems resources in place to assess California's wildland fire problems. Preparation of the Plan involved stakeholders in defining solutions and developing management measures that can be put in place before a fire occurs.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ CDF's **Forest Stewardship and Stewardship Incentive Program** encourages restoration of forest land.
- ♦ CDF's **Pine Pitch Canker Task Force** periodically issues media advisories on issues related to CDF activities. For example, CDF issues an advisory each Fall on taking precautions to help control the spread of pine pitch canker. As a member of the Pine Pitch Canker Task Force, CDF wants the State's citizens to be aware of this fungal disease that kills native and ornamental pine trees and may infect Monterey pine Christmas trees. The disease is present in 15 coastal and adjacent inland California counties from Mendocino to San Diego, and has been isolated in Morro Bay. Bark

Beetles, which carry the fungus, primarily infest Monterey and Bishop pines, but also feed and breed on inland forest trees such as Ponderosa pine. CDF's concern is that the disease could be transported to areas of the State that don't have pitch canker. Since there is no known cure for the disease, limiting its spread is the key to prevention.

IV. ADMINISTRATION

For further information, contact:

California Department of Forestry and Fire Protection	Department of Forestry and Fire Protection
635 N. Santa Rosa St.	1416 Ninth St.
San Luis Obispo, CA 93405	Sacramento, CA 95814
(805) 543-4244	(916) 653-5121
	http://www.fire.ca.gov

S16. California Department of Parks and Recreation (DP&R), Resources Agency						
Priority problems addressed (✓) *						Key programs/activities/etc.
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	(relating to the priority problems)
					✓	• Land/Habitat Management (RM)
✓	✓	✓	✓	✓	✓	• Docent Program (NR)
✓	✓	✓	✓	✓	✓	• Pilot Projects (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

The DP&R manages State Park lands including marinas. Its mission is to provide for the health, inspiration, and education of the people of California by helping to preserve the State's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high quality outdoor recreation. DP&R program authorities are derived from the Public Resources Code. Programs related to estuarine protection include those listed below.

III. FUNCTIONS (regulatory, resource management, finance, voluntary, education/technical assistance, and/or planning)

A. Regulatory Activities/Programs

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

- ♦ **Land/Habitat Management** — DP&R owns much of the sensitive wetland land at the edge of Morro Bay, and has recently been granted jurisdiction over areas of open water owned by State Lands Commission. The agency has prepared several General Plans for the following parks within the watershed region: Morro Bay State Park, Montana De Oro State Park, Los Osos Oaks State Preserve.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ **Docent Program** — DP&R staff train volunteers who interpret the cultural, natural and recreational resources of State Parks to visitors.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

- ♦ **Pilot Projects** — DP&R is testing several pilot educational programs, such as Project Reach and Project FamCamp, that are designed to make the educational resources of State Parks accessible to the widest possible spectrum of people.

IV. ADMINISTRATION

For further information, contact:

Department of Parks and Recreation
San Luis Obispo Coast District
3220 S. Higuera St. Suite 311
San Luis Obispo, CA 93401
(805) 549-3312

Department of Parks and Recreation
1416 Ninth Street
P.O.Box 942896
Sacramento, CA 94296-0001
(916) 653-6995
<http://www.>

S17. Department of Toxic Substances Control (DTSC), Cal/EPA

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
			✓			• Hazardous Waste Facilities Permits (R)
			✓			• Site Mitigation Program (R)
			✓			• Other Cleanup Programs (R)
			✓			• Voluntary Cleanup Program (NR)
			✓			• California Environmental Technology Partnership Certification (NR)
			✓			• Registration of Environmental Assessors Program (NR)
			✓			• California Compliance School (NR)
			✓			• Hazardous Waste Generator/Small Business Outreach Workshops (NR)
			✓			• <i>Toxics Update</i> (NR)
			✓			• Emergency Response Training (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

DTSC is the lead agency in California for hazardous waste management. The agency manages the cleanup of hazardous waste sites, and regulates the transport, treatment, storage, and disposal of hazardous waste. DTSC is also concerned with groundwater contamination resulting from households, septic tanks, agriculture, landfills, underground storage tanks and pipelines, industrial wastes, and the reduction and treatment of such wastes. The agency's mandate is to protect public health and the environment from harmful exposure to hazardous substances, without unnecessarily impacting sustainable growth and development. DTSC program authorities include (1) the Health and Safety Code (H&SC) Division 38 §§ 58000 *et seq.*, (2) H&SC Div. 20 §§ 25100 *et seq.* (Hazardous Waste Control), and (3) the California Code of Regulations Title 3, §§ 6000 *et seq.*, Title 22 §§ 66250.1 *et seq.*, and Title 27, Div. 2.

DTSC activities include permitting, site cleanup, pollution prevention, environmental technology certification, public participation, and education (e.g., demonstrate innovative methods, provide training, and disseminate information). In performing these activities, DTSC may (1) perform the activity directly, (2) enter into contracts or agreements to perform the activity, (3) apply for and receive grants to perform the activity, and/or (4) award grants to perform the activity. Programs related to estuarine protection include those listed below.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

III. FUNCTIONS (regulatory, resource management, finance, non-regulatory)

A. Regulatory Activities/Programs

- ♦ **Hazardous Waste Facilities Permits** — DTSC issues permits to operate to any person who stores, treats or disposes of "hazardous waste." The H&SC defines hazardous waste as waste or a combination of wastes that, because of quantity, concentration, or physical or chemical characteristics, may either: (a) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible or incapacitating reversible illness; or (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.
- ♦ **Site Mitigation Program** — This program, implemented by DTSC under CERCLA and the National Contingency Plan, assesses hazardous waste areas that are or may contribute to pollution, and develops clean-up operations to mitigate pollution from such areas. Cleanup sites include State-funded sites, federal Superfund sites, federal military installations, and other responsible party-lead sites. An important element of DTSC project management at cleanup sites is interagency coordination to ensure that remediation requirements are met, that adjacent communities are kept informed, and that the public has an opportunity to provide input into the site mitigation process. DTSC works with the U.S. EPA, Department of Defense and military branches (for operational and closing military bases), State Water Resources Control Board, and other public and private entities to formulate cleanup policies, to expedite the re-use of formerly contaminated sites, to encourage development and use of new cleanup technologies, and to foster public participation in the cleanup process. A Memorandum of Understanding exists between the Regional Boards, the SWRCB and the Department of Toxic Substances Control specifying roles and responsibilities in hazardous waste cleanups at federal facilities where overlap may occur.
- ♦ **Other Cleanup Programs** — The following programs are key links in DTSC's and Cal/EPA's efforts to out-source to qualified professionals to ensure that appropriate cleanup actions are taken at contaminated properties. (See also **Voluntary Cleanup Program** below.)
 - **Local Agency Cleanup Program** — This program allows a local health agency to enter into a written agreement with DTSC to supervise the cleanup of a waste release, set cleanup goals, and certify that the cleanup goals were accomplished.
 - **Private Site Management (PSM) Program** — This program is intended to increase private sector cleanup activities at low-level hazardous substance sites, and to help return formerly contaminated property to productive use. Under the program, DTSC would register Class I and Class II assessors. Registered Class II assessors can act as Private Site Managers with authority (1) to investigate potential hazardous substance releases using DTSC procedures; (2) to determine if a significant release has occurred, is likely to occur, or has not occurred; and (3) to conduct and complete a response action. DTSC's Site Mitigation staff would provide limited oversight with specific responsibilities to ensure that PSM Program sites meet State cleanup standards. Before program implementation can begin, DTSC must establish regulations for PSM performance standards and for registration criteria for Class I/II assessors.

B. Resource Management Activities/Programs

This agency does not implement any resource management activities or programs.

C. Finance Mechanisms

- ♦ DTSC may award grants for the performance of any activity related to the protection, preservation, and advancement of public health (H&SC § 58017).

D. Other Non-Regulatory Programs

- ♦ **Voluntary Cleanup Program** — This program addresses low-risk sites with known or suspected soil and/or groundwater contamination that may not otherwise be addressed due to limited resources. Excluded from this program are federal or State Superfund sites, federal facilities, or sites outside DTSC jurisdiction (e.g., sites with petroleum-only products/waste) unless the primary oversight agency gives its consent to this voluntary approach. The program allows motivated project proponents that are able to fund site cleanup activities at their lower priority sites to proceed with investigation and remediation. DTSC works cooperatively with such proponents to produce a more efficient and cost-effective approach to site assessment and cleanup.
- ♦ **California Environmental Technology Partnership (CETP) Certification** — The CETP, coordinated by Cal/EPA, recognizes, promotes, and assists California companies that research, develop, and market environmental technologies and services. Under the CETP certification process, DTSC gathers and reviews data to substantiate vendors' claims related to hazardous waste environmental technologies.
- ♦ **Registration of Environmental Assessors (REA) Program** — Established in 1987, this program connects businesses with professionals who have the technical expertise to assist with maintaining compliance with environmental regulations. DTSC registers as REAs those applicants who fulfill legislatively mandated education and experience requirements.
- ♦ **California Compliance School** — DTSC, in cooperation with the California Community Colleges, has developed a series of classes that provide hands-on training for individuals engaged in the management of hazardous wastes. The training programs and a Workbook convey basic training on hazardous waste management practices that help a facility achieve and maintain compliance with current hazardous waste management rules and regulations.
- ♦ **Hazardous Waste Generator/Small Business Outreach Workshops** — DTSC, Cal/EPA, and the U.S. EPA periodically present workshops on hazardous waste management. The workshops are beneficial to any business that uses hazardous materials, such as paints or coatings, solvents for cleaning, adhesives or glues, etching or plating solutions, lubricants or oils, coolants, photographic solutions, etc.
- ♦ **Toxics Update** — DTSC's Office of External Affairs publishes a bi-monthly Guide to Regulatory Assistance, Publications, Information Access, and Other Matters of Interest.
- ♦ **Emergency Response Training** — The Public Utilities Code requires DTSC to conduct an annual exercise in response to a major chemical emergency from a surface transportation

accident. In 1996, DTSC and the San Luis Obispo County Office of Emergency Services conducted an annual Railroad Accident Prevention and Immediate Deployment (RAPID) exercise at the California Specialized Training Institute in Camp San Luis Obispo.

IV. ADMINISTRATION

For further information, contact:

Regional Office (serving SLO County):

**Department of Toxic Substances Control
Sacramento Field Office
10151 Croydon Way, Ste. 3
Sacramento, CA 95827
(916) 255-3618**

Headquarters:

**Department of Toxic Substances Control
400 P Street
P.O. Box 806
Sacramento, CA 95812-0806
(916) 324-1826
<http://www.calepa.ca.gov/dtsc/dtsc.htm>**

S18. California Department of Transportation (Caltrans), Business Transportation and Housing Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓			✓	✓	✓	• Environmental Enhancement and Mitigation Programs (RM)
✓	✓	✓	✓	✓	✓	• California Wild (RM)
✓	✓	✓	✓	✓	✓	• Stormwater Management (RM)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

Caltrans' mission is to provide the people of California with a safe, efficient and effective transportation system; to plan, develop, maintain and manage State roads and highways; and to assist and guide delivery of local and regional transportation services. To achieve its mission, Caltrans seeks to manage resources within State Highway Right of Way, prevent hazardous and incompatible use of floodplains, restore and preserve natural and beneficial floodplain values, and manage surface runoff and drainage. For the latter, Caltrans is working to control or prevent polluted runoff (nonpoint source pollution) through the implementation of Best Management Practices (BMPs) in construction projects and in roadside applications of herbicides. Caltrans also issues encroachment permits for any work within the State Highway Right of Way. Evaluation for flood plain projects must be in agreement with standards and criteria of the Federal Highway Programs Manual, and with the Federal Emergency Management Agency's National Flood Insurance Program.

Caltrans District 5 covers highways in Monterey, San Luis Obispo, Santa Cruz, San Benito and Santa Barbara Counties. Programs related to estuarine protection include those listed below.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

- ◆ **Environmental Enhancement and Mitigation (EEM) Program** — This program administers Caltrans' responsibilities under federal and state environmental law. Program staff identify and assess the effects of Caltrans projects on the state's natural and cultural

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

environments, and identify ways to avoid or mitigate those effects. Legislature is authorized to allocate ten million dollars annually, for ten years, starting in 1991, to local, state, and federal agencies, and nonprofit organizations. Applicants may apply for these funds to undertake environmental enhancement and mitigation projects which are directly or indirectly related to the environmental impact of modifying existing transportation facilities, or for the design, construction or expansion of new transportation facilities. The related transportation facility must have been modified or constructed in 1991 or later and the EEM project must be over and above the required mitigation for the related transportation facility.

Caltrans has matched a Coastal Conservancy grant with \$835,000 to purchase land on lower Chorro Creek to serve as a sediment trap/flood plain.

- ♦ **CaliforniaWild** — The Office of State Landscape Architecture develops projects that preserve, manage effectively, and enhance native roadside vegetation for their functional, fiscal, scientific, cultural, environmental, and aesthetic values.
- ♦ **Stormwater Management** – CalTrans is covered by an NPDES permit for stormwater discharge and construction activities. RWQCB has regulatory oversight. (See Camp SLO)

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

This agency does not implement any other non-regulatory activities or programs.

IV. ADMINISTRATIVE

For further information, contact:

Caltrans, District 5
50 Higuera St.
San Luis Obispo, CA 93401-5415
(805) 549-3182

California Department of Transportation
1120 N St.
Sacramento, CA 95814
(916) 654-2852
<http://www.dot.ca.gov>

S19. Department of Water Resources (DWR), Resources Agency

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
				✓		• Environmental Compliance, Permitting, & Review (RM)
				✓		• Model Water Efficient Landscape Ordinance (RM)
				✓		• Land Resources and Use Program (RM)
				✓		• California Irrigation Management Information System (RM)
				✓		• Urban Streams Restoration Program (F)
				✓		• Water Education Program (NR)
				✓		• Agricultural Water Management Plan (NR)
				✓		• Agricultural Drainage Reduction (NR)
				✓		• Agricultural Efficient Water Management Practices (NR)
				✓		• Agricultural Training & Education Program (NR)
				✓		• Mobile Irrigation Management Laboratories (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

DWR's mission is to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments. DWR manages an immense system of aqueducts, dams, reservoirs, and pumping and power plants that deliver water to urban and agricultural areas throughout the State. The California Water Commission's mission is to advise DWR and to coordinate state and local views with regard to federal appropriations for flood control, water and fishery projects in California. Programs related to estuarine protection include those listed below.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)**A. Regulatory Activities/Programs**

This agency does not implement any regulatory activities or programs.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- > **Sediment** = rapid sedimentation
- > **Bacteria** = increased bacterial concentrations
- > **Nutrients** = increased nutrient concentrations
- > **Heavy Metals +** = increased heavy metal/toxins concentrations
- > **Reduced Flow** = freshwater flow reductions
- > **Habitat Loss** = adverse impacts to wildlife habitat

B. Resource Management Activities/Programs

- ◆ Environmental Compliance, Permitting, & Review — DWR staff provide technical assistance to agencies and individuals in completing various environmental compliance and permitting documents or applications relating to water supply projects. DWR will perform necessary field reconnaissance work to establish baseline environmental data used for project scoping, impact analysis, mitigation planning and monitoring, and project permitting requirements. DWR also coordinates review of CEQA, NEPA and ACOE CWA § 404 permits for both DWR and the Resources Agency.
- ◆ Model Water Efficient Landscape Ordinance — Pursuant to the Water Conservation in Landscaping Act of 1990, DWR adopted a Model Water Efficient Landscape ordinance that went into effect in January 1993. Cities and counties had options to adopt the Model Ordinance, adopt their own ordinance, or issue findings that no ordinance is necessary. If no action was taken, the Model Ordinance automatically went into effect.
- ◆ Land Resources and Use Program — Under this program, DWR (1) conducts field surveys to collect urban and agricultural land use data, (2) digitizes and analyzes the data for use in water-demand investigations, and (3) maintains historic maps and databases of land use data.
- ◆ California Irrigation Management Information System (CIMIS) — CIMIS is a repository of climatological data collected at computerized weather stations located throughout California. CIMIS was developed by DWR and the University of California, Davis and has been operational since 1982. Access is possible with high-speed modems as well as through the Internet. CIMIS helps agricultural growers and turf managers administering parks, golf courses and other landscapes to develop water budgets to determine when to irrigate and how much water to apply. Providing information for improving water and energy management through efficient irrigation practices is the primary use of the CIMIS system.
- ◆ Environmental and Recreational Planning -- This is one of DWR's local assistance programs. It offers technical guidance and assistance to public and private agencies to promote environmental measures such as restoring spawning gravel, building fish screens and ladders, developing new habitat, increasing streamflow volume, and preserving and restoring wetlands.

C. Finance Mechanisms

- ◆ Urban Streams Restoration Program — DWR works with citizens and local government agencies to address water-related problems of urban streams, including bank erosion and flooding. This program identifies funding sources and offers grants on a competitive basis for projects that solve urban creek problems and restore natural environmental values.

D. Other Non-Regulatory Programs

- ◆ Urban Streams Restoration Program — DWR works with citizens and local government

agencies to address water-related problems of urban streams, including bank erosion and flooding. This program identifies funding sources and offers grants on a competitive basis for projects that solve urban creek problems and restore natural environmental values.

- ◆ **Water Education Program** — This DWR program provides technical assistance to local water districts in planning, organizing and implementing water education and conservation programs for schools and the general public. It identifies and develops water conservation materials that can be integrated into school curriculums statewide.
- ◆ **Agricultural Water Management Planning** —DWR helps local agencies to develop and implement Agricultural Water Management Plans [mandated under Assembly Bill (AB) 658] for water conservation and drainage reduction programs.
- ◆ **Agricultural Drainage Reduction** — DWR assists growers and water agencies to reduce agricultural drainage water, and to improve, develop and use on-farm drainage and salinity management practices. DWR staff also conduct on-farm demonstration projects to reduce agricultural drainage.
- ◆ **Agricultural Efficient Water Management Practices** — Mandated by AB 3616, DWR staff conduct the following activities: (1) assist local agencies with developing a list of efficient agricultural water management practices for water suppliers, (2) help agencies implement and evaluate the effectiveness of such practices and initiate cooperative, cost-effective activities with local agencies, and (3) help agricultural water suppliers implement water management plans regarding efficient water management practices.
- ◆ **Agricultural Training & Education Program** — This program provides training and educational short courses related to on-farm irrigation management, flexible water delivery, and irrigation system evaluations. It also plans, reviews and contracts for bilingual workshops for irrigators of farming operations and large turf areas.
- ◆ **Mobile Irrigation Management Laboratories** — In cooperation with local agencies, DWR provides irrigation system evaluations for furrow, border strip, sprinkler, microirrigation, and other irrigation systems. DWR staff make recommendations to growers on how to improve irrigation efficiency, provide quality assurance, sponsor workshops, promote local funding, distribute various types of printed materials, and participate in various fairs.

For further information, contact:

Department of Water Resources
Southern District Office
770 Fairmont Ave.
Glendale, CA 91203-1035
(818) 543-4600

Department of Water Resources
1416 Ninth Street
Sacramento, CA 95814
(916) 653-5791
<http://www.dwr.water.ca.gov>

S20. Office of Environmental Health Hazard Assessment (OEHHA), Cal/EPA

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
						(✓ if any agency activities apply)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

The OEHHA assesses the health risks from exposures to chemicals in air, water, food, hazardous and municipal waste facilities, fish, shellfish, and bay and estuarine sediments, and provides information and advice for risk management decisions. It also provides scientific peer review of risk assessments conducted by other agencies (e.g., pesticide risk assessments conducted by the Department of Pesticide Regulation), and it is the lead agency for implementing the Safe Drinking Water and Toxic Enforcement Act of 1986. Programs related to estuarine protection include those listed below.

III. FUNCTIONS (REGULATORY, RESOURCE MANAGEMENT, FINANCE, AND NON-REGULATORY)**A. REGULATORY ACTIVITIES/PROGRAMS**

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

This agency does not implement any resource management activities or programs.

B. Finance Mechanisms

This agency does not implement any finance activities or programs.

D. Other Non-Regulatory Programs

This agency does not implement any other non-regulatory activities or programs.

IV. ADMINISTRATION

[More information needed.]

For further information, contact:

Office of Environmental Health Hazard Assessment (OEHHA)

301 Capitol Mall

Sacramento, CA 95814

(916) 324-7572

<http://www.oehha.org>

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- > Sediment = rapid sedimentation
- > Bacteria = increased bacterial concentrations
- > Nutrients = increased nutrient concentrations
- > Heavy Metals + = increased heavy metal/toxins concentrations
- > Reduced Flow = freshwater flow reductions
- > Habitat Loss = adverse impacts to wildlife habitat

S21. University of California, Cooperative Extension

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓	✓	Morro Bay Watershed Hydrologic Unit Area Project
✓	✓	✓	✓	✓	✓	California Sea Grant Program

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

The U. C. Cooperative Extension works to improve agricultural productivity through research and education. Through many different educational outreach programs, Cooperative Extension provides assistance and advice to farmers regarding erosion control practices, chemical and pesticide applications, water conservation, irrigation, and methods to increase crop and livestock production. Programs related to estuarine protection include those listed below.

III. FUNCTIONS (regulatory, resource management, finance, voluntary, education/technical assistance, and/or planning)**A. Regulatory Activities/Programs**

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

- ♦ Participation in the Morro Bay Watershed Hydrologic Unit Area Project in partnership with NRCS, including:
 - Watershed management education programs, including a ranch water quality short course and a 4-H youth watershed project.
 - Ranch planning water quality short course provides education to ranchers regarding water quality management on rangelands.
 - Expertise and experience in CRMP process.

C. Finance Mechanisms

- ♦ Administrator of the University of California Sea Grant Extension Program, funded by NOAA, for projects that encourage wise stewardship of marine resources.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

D. Other Non-Regulatory Programs

This agency does not implement any other non-regulatory programs.

IV. ADMINISTRATION

Cooperative Extension is part of the Division of Agriculture and Natural Resources of the University of California. Cooperative Extension has offices in nearly all of the counties in the state. There are several Cooperative Extension advisors within each county, as well as advisors with cross county assignments.

For further information, contact:

County Office:

**University of California, Cooperative
Extension**

2156 Sierra Way, Suite C
San Luis Obispo, CA 93401
(805) 781-5940

University Office:

**Division of Agriculture and Natural
Resources**

1111 Franklin Street, 6th Floor
Oakland, CA 94607-5200
(510) 987-0060

Regional Office:

**University of California, Cooperative
Extension**

Division of Agriculture and Natural Resources-
Southern Region
Riverside, CA 92521
(909) 787-3321

2.3 FEDERAL AGENCIES

Primary Agencies Involved In Protection Of The Morro Bay Estuary

F1. U.S. Environmental Protection Agency (EPA)- Page 149

F2. U.S. Army Corps of Engineers (ACOE)- Page 157

F3. U.S. Fish and Wildlife Service (USFWS), U.S. Dept. of the Interior- Page 162

F4. Natural Resources Conservation Service (NRCS), U.S. Dept. of Agriculture (USDA) - Page 168

Secondary Agencies

F5. Farm Service Agency (FSA), USDA - Page 175

F6. National Oceanic and Atmospheric Administration (NOAA), U.S. Dept. of Commerce - Page 176

F7. NOAA, National Marine Fisheries Service (NMFS), U.S. Dept. of Commerce - Page 180

F8. U.S. Coast Guard (USCG) - Page 182

F9. U.S. Forest Service (USFS), USDA - Page 184

F10. U.S. Geological Survey (USGS), U.S. Dept. of the Interior - Page 187

F1. U.S. Environmental Protection Agency (EPA)

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓	✓	• Federal Water Pollution Control Program (R)
	✓	✓	✓			• National Pollution Discharge Elimination System (NPDES) (R)
✓	✓	✓	✓	✓	✓	• TMDL Process (R)
✓	✓	✓	✓	✓	✓	• Ambient Water Quality Monitoring and Assessment (R)
✓	✓	✓	✓			• Water Quality Standards (R)
✓			✓		✓	• National Wetlands Program (R)
✓	✓	✓	✓	✓	✓	• NEPA Review
✓			✓			• Ocean Dumping (R)
			✓			• Pesticides & Groundwater (R)
			✓			• Superfund (R)
			✓			• National Spill Prevention and Response (R)
			✓			• National Hazardous Waste Control Program (R)
			✓			• Toxic Substances Control (R)
			✓			• Emergency Planning and Community Right to Know (R)
✓	✓	✓	✓	✓	✓	• Water Quality Criteria (RM)
✓	✓	✓	✓	✓	✓	• National Estuary Program (RM)
✓	✓	✓	✓	✓	✓	• Nonpoint Source Pollution/CZARA Programs/National Monitoring Program (RM)
✓	✓	✓	✓	✓	✓	• Water Quality Assessment (RM)
✓	✓	✓	✓	✓	✓	• National Pollution Prevention Program (RM)
✓	✓	✓	✓			• Environmental Monitoring and Assessment Program (RM)
✓	✓	✓	✓			• Index of Watershed Indicators (RM)
✓	✓	✓	✓		✓	• Grants (F)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

I. MISSION AND AUTHORITIES

EPA's mission is to protect, maintain, restore, and enhance environmental quality and human health through the regulation of activities that have potentially harmful effects on air, water and land resources. The EPA administers and implements the Clean Water Act (CWA) in partnership with other designated federal, state, and local agencies. Other EPA program authorities related to estuary protection include: the Marine Protection, Research and Sanctuaries Act (MPRSA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Ocean Dumping Ban Act; National Environmental Protection Act (NEPA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Resource Conservation and Recovery Act (RCRA); Endangered Species Act; and the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) in partnership with the National Oceanic and Atmospheric Administration (NOAA).

II. JURISDICTION

EPA has jurisdiction throughout the United States and offshore territories to 200 nautical miles. EPA programs are administered through 10 regional offices; EPA Region 9 includes Morro Bay. In Morro Bay, EPA administers the Morro Bay National Estuary Program (MBNEP).

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ◆ **Federal Water Pollution Control Program** — This program, as authorized by CWA Section 106, provides annual funding to California for the purpose of implementing the following programs to abate pollution of waters to meet the "fishable/swimmable" goals of the Clean Water Act:
- ◆ **National Pollution Discharge Elimination System (NPDES) Program** — CWA § 402 authorizes the issuance of NPDES permits to control discharges, including stormwater, from municipalities, industrial discharge facilities, and construction sites into U.S. navigable waters. These discharges are categorized as "point source discharges". In California, implementation of the NPDES is delegated to the State Water Resources Control Board (SWRCB). In the Morro Bay watershed, SWRCB mandates are in turn administered by the Central Coast RWQCB. USEPA may intervene to achieve NPDES permit requirement compliance, conduct inspections and issue administrative orders and penalties against violators if necessary. Additionally, USEPA develops national technology-based effluent regulations and publishes guidance on the applicability of the regulations. Limitations and standards are established for industrial facilities, publicly owned treatment works (POTWs), or other municipal sewage systems, that discharge or may discharge directly into U.S. waterways. The CWA requires dischargers to a POTW or other municipal sewage system to pre-treat their waste water. Pretreatment includes pollution prevention and waste reduction practices, as well as onsite and off-site pollution

control technology. In the Morro Bay watershed, the Central Coast Regional Water Quality Control Board (RWQCB) administers the pre-treatment program for the EPA.

- ◆ **The Total Maximum Daily Load (TMDL)** process was established under CWA § 303(d) to address instream water pollution that continues even when best available technology has been applied. TMDLs provide for more stringent water quality-based controls when technology-based controls are inadequate to achieve State water quality standards. TMDLs establish the assimilative capacity of a waterbody, sources of pollution, allowable pollutant loadings and pollution reductions necessary to attain water quality standards for a water body.
- ◆ USEPA oversees the State's monitoring and assessment activities required by the Clean Water Act. **Ambient water quality monitoring** is required for California to receive funds pursuant to CWA Section 106. **Water quality assessments** must be reported biennially to Congress pursuant to CWA Section 305.
- ◆ **Water Quality Standards** — USEPA is promulgating federal standards for California that will apply to Morro Bay. The State's Water Quality Objectives (Enclosed Bays and Estuaries of California Water Quality Objectives), or California Toxics Rule, was overturned by the courts.
- ◆ **National Wetlands Program** — CWA § 404, administered jointly with the U.S. Army Corps of Engineers (ACOE), is the cornerstone of EPA's efforts to protect wetlands. Dredge and fill activities, which often impact wetlands, are regulated by "Section 404 permits" issued by the ACOE. EPA helps to develop the environmental guidelines by which permit application must be evaluated, and has authority to deny a permit if wetlands would be adversely affected. CWA § 309 provides authority to EPA and ACOE to impose administrative penalties for violations of Section 404 permits. EPA has developed an Administrative Penalty Policy which outlines procedures for establishing fines. When judicial action is pursued, violators may be required to restore sites and may be subject to payment of fines, imprisonment or both.
- ◆ **NEPA Review** — NEPA requires consideration of the impacts on environmental resources caused by any federal action, including federally funded or permitted projects. It requires federal agencies to recognize and consider environmental amenities and values in the course of their decision-making, and to examine alternatives to the proposed action that minimize impacts and better safeguard environmental values. Environmental investigations carried out in accordance with NEPA are documented in an environmental assessment (EA) or environmental impact statement (EIS) prior to undertaking major federal actions that significantly affect the quality of the environment. EPA may prepare or review EAs or EISs.
- ◆ **Ocean Dumping** — EPA, in consultation with the ACOE, establishes environmental impact criteria to help evaluate proposed projects involving the transport and disposal of dredged material into coastal waters and the ocean. EPA is responsible for designating and managing ocean dumping sites. Under MPRSA § 105, EPA can assess civil penalties and seek injunctive relief if sediments are dumped in the ocean illegally. The 1992

Ocean Dumping Ban Act also prohibits the dumping of any industrial waste or sewage sludge into the ocean.

- ◆ **Pesticides & Groundwater** — FEFRA, as amended, requires the registration of all pesticides sold and distributed in the United States. FIFRA, as amended, authorizes EPA to specify additional requirements in the licensing or registration and labeling of pesticide products that “threaten” ground and surface waters (based on an evaluation of test data showing that a pesticide has the potential to cause unreasonable adverse effects on humans, animals or the environment). Under the proposed SMP rule, EPA may prohibit use of 5 products identified in the rule unless a state, such as California, has an EPA-approved State Management Plan. No other actions are being taken for other ‘leaching’ pesticides at this time.
- ◆ **Superfund** — EPA administers the Federal Superfund Program, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), in cooperation with states and tribal governments. The Superfund Program identifies, investigates and cleans up hazardous waste sites. The program was established in 1980 in response to growing concern over health and environmental risks posed by hazardous waste sites. The federal Defense Fuel Support Point Estero Bay (now owned by Texaco), north of Toro Creek, is on EPA’s current inventory of potential Superfund sites. Superfund has also completed assessments at three other sites—the Morro Bay Disposal Site and Pacific Gas and Electric Morro Bay Power Plant—and determined these sites are not eligible for placement on the EPA’s National Priorities List. The RWQCB is the lead agency overseeing investigation and cleanup activities at these facilities.
- ◆ **National Spill Prevention and Response** — USEPA works in partnership with the US Coast Guard to respond to emergency spills and to develop spill prevention, facility response, and national emergency response plans. These activities are authorized by CWA Section 311 and the Oil Pollution Act.
- ◆ **National Hazardous Waste Control Program** — The purpose of this program, authorized by the Resource Conservation and Recovery Act, is to increase the safety of land disposal, promote reduction of solid wastes, and foster recycling. USEPA has the authority to investigate and prosecute (with civil or criminal penalties) those associated with wastes that threaten public health or the environment.
- ◆ **Toxic Substances Control** — PCB treatment, storage, and disposal facilities are permitted under TSCA. EPA is authorized to require testing and data gathering for all other chemicals. If a company is creating or importing a new chemical it must be reported to EPA.
- ◆ **Emergency Planning Community Right to Know**— Companies that meet certain criteria are required to report emissions to EPA annually. EPA makes this data to the public through the toxic release data inventory and through other mechanisms.

B. Resource Management Activities/Programs

- ◆ **Water Quality Criteria** — This program, authorized by CWA § 303, provides for development of state water quality criteria. USEPA has developed both methodologies and specific criteria to protect aquatic life and human health. State standards are set taking into consideration USEPA criteria, and are comprised of the use and value of the water body (e.g., public water supply; propagation of fish, shellfish and wildlife; recreational, agricultural, industrial, and navigational purposes). In California, USEPA approves water quality standards developed by the SWRCB and the RWQCBs (contained in Basin Plans). If USEPA disapproves a standard, the agency indicates what changes must be made for the standard to be approved. If the State fails to make the required changes, EPA may promulgate a Federal standard applicable to the State. Pursuant to CWA § 303(d), the SWRCB and Central Coast RWQCB must list waters within the Central Coast Region, including the Morro Bay watershed, that do not meet established water quality standards (impaired water bodies).
- ◆ **National Estuary Program (NEP)** — In 1995, Morro Bay became part of the NEP. The NEP was set up under CWA § 320 to develop comprehensive conservation and management plans (CCMPs) for estuaries of national significance. One of the principal goals of the NEP is to develop relationships between estuary uses, pollutant sources, water quality, and natural resources. In managing NEPs, EPA seeks to: (1) establish working partnerships among local, state and federal agencies; (2) transfer scientific/management information and expertise to program participants; (3) increase public awareness; (4) promote area-wide planning to control pollution and manage resources; and (5) oversee development and implementation of pollution reduction and control programs. [See also Section F (Planning) below.] Under the MBNEP, the EPA and representatives from local, State and federal agencies, academic and scientific institutions, industry, and citizen groups in Morro Bay will develop a CCMP. MBNEP participants define objectives for protecting the Morro Bay estuary, select the chief problems to be addressed in the Plan, and ratify a pollution control resource management strategy to meet each objective. In Morro Bay, EPA contributes to Central Coast RWQCB staff funding to develop the CCMP and other interagency guidance documents for the Morro Bay watershed. Preliminary work on these guidance documents became the initial documents and research required to prepare a Base Program Analysis for the MBNEP CCMP.
- ◆ **Nonpoint Source (NPS) Pollution/CZARA Programs** — The CWA requires states to assess NPS pollution problems and causes within the state, to adopt management programs to control NPS pollution, and to implement the management programs. EPA must approve state programs for managing NPS pollution. In 1988, the EPA approved the SWRCB's Nonpoint Source Management Plan pursuant to CWA § 319. The Central Coast RWQCB is the primary State agency that implements NPS pollution program activities in the Morro Bay watershed. These activities include technical assistance, monitoring, grant funding and outreach and education. EPA and NOAA reviewed and recently approved with conditions California's Coastal Nonpoint Pollution Control

Program (CNPCP) prepared by the SWRCB and California Coastal Commission pursuant to CZARA § 6217. EPA and NOAA also publish guidelines related to the requirements that California must meet in implementing its CNPCP.

- ♦ **National Monitoring Program (NMP)** — This program provides funding and technical assistance to several nonpoint source pollution control projects. The projects in this program were selected to provide credible documentation of the feasibility of controlling nonpoint sources. Additionally, they should improve the technical understanding of nonpoint source pollution and the effectiveness of nonpoint source control technologies and approaches. These objectives are met through intensive monitoring and evaluation. The Morro Bay NMP Project was accepted into this program to study the rangeland NPS issues. The Morro Bay NMP is evaluating the effectiveness of a system of best management practices to control sediment and to improve water quality over a ten-year period. The project is being implemented by the RWQCB and Cal Poly University.
- ♦ **Water Quality Assessment**—USEPA oversees state's efforts to compile statewide water quality data for biennial reports required by Section 305(b) of the Clean Water Act. The Regional Board's prepare a "305(b) report" which generally categorizes water body classifications by degree of support of designated beneficial uses. The database software used by the Regional Boards is USEPA's Waterbody System (WBS). The Regional Boards and the SWRCB have maintained a "water quality assessment" database since 1989. The database contains information on water quality conditions and problems for many of the surface and ground waters of the State. The database is updated every two years.
- ♦ **National Pollution Prevention Program** —USEPA provides a national clearinghouse, technical support, and grants to promote pollution prevention, as authorized by the Pollution Prevention Act of 1990.
- ♦ **Environmental Monitoring and Assessment Program (EMAP)** — EMAP is an inter-agency monitoring activity designed to evaluate the status and trends of ecological resources using a probability-based monitoring design. EMAP conducts surveys to assess the health of plants and animals, the quality of their surroundings, and presence of pollutants. Key indicators, representative of the general condition of a site's resources, are examined at designated sites. The indicators can address: (1) biotic integrity; (2) sediment and water quality; and (3) exposure of biota to pollutants.
- ♦ **Index of Watershed Indicators (IWI)** — The IWI (www.epa.gov/surf/iwi) scores the health of more than 2,100 watersheds in the lower 48 states, including the Morro Bay watershed, according to 15 key factors. Seven indicators rank the condition of the aquatic resource, while eight assess the vulnerability of the watershed to future threats. Indicators include issuance of fish and wildlife consumption advisories, presence of contaminated sediments, conventional or toxic pollutants and number of aquatic or wetland species at risk. The IWI can help watershed managers make better decisions on strategies and priorities for environmental programs.

C. Finance Mechanisms

- ◆ **Federal Water Pollution Control Program** — This program, as authorized by CWA Section 106, provides annual funding to California for the purpose of implementing programs to abate pollution of waters to meet the “fishable/swimmable” goals of the Clean Water Act.
- ◆ **National Source Water Assessment** — USEPA is developing and administering a program to make loans available to support prevention programs to protect drinking water. This effort was provided for in the 1996 amendments to the Safe Drinking Water Act.
 1. **Project Grants** are available to a broad range of recipients for a wide spectrum of agency priorities, such as environmental justice, pollution prevention, watershed planning, nonpoint source pollution control implementation, environmental education, and environmental stewardship.
 2. **Continuing Program Grants** are baseline grants awarded primarily to support ongoing state and tribal air, water and waste programs. Grants are available under specific statutes (e.g., CWA § 106, Clean Air Act § 105, RCRA § 3011). Current examples of continuing grants to the State and the Regional Board for activities in or affecting the Morro Bay Watershed include: CWA § 104(b)(3) Wetlands Grant and Watershed Management Initiative Grant, CWA § 319 Nonpoint Source Implementation Grant, CWA § 205 Water Quality Planning Grant.
 3. **Clean Water State Revolving Fund (CWSRF)** — Traditionally used to finance POTW construction projects, the CWSRF program can fund water quality improvement projects that address both point and nonpoint sources of pollution, including watershed-based estuary and nonpoint source management projects developed under the MBNEP CCMP. Although assistance is typically in the form of low-interest loans, the CWSRF is a flexible source of financing that can also provide loan guarantees, bond insurance, and refinancing of existing debt. In California, the CWSRF is managed by the SWRCB.
 4. **Safe Drinking Water State Revolving Fund (SDWSRF)** — This fund is similar to the CWSRF but available for water supply treatment and pollution prevention related to drinking water.

EPA has funded or is currently funding the following activities in the Morro Bay watershed:

- CWA § 104(b)(3) funds are contributing to implementation of NPS pollution controls in the watershed, development of the MBNEP CCMP Base Program Analysis, and development of the Regional Board’s Watershed Management Initiative Chapter (which includes Morro Bay as a priority watershed).
- CWA § 205(j) funds are contributing to a RWQCB study of abandoned mines in the Chorro Creek watershed. This study has identified chromium and nickel as metals of concern in the watershed and will ultimately result in recommendations for remediation. These funds also provided an administrative coordinator for development of both a Morro Bay Management Plan and a CCMP for the MBNEP.

- CWA § 319 funds are contributing to agricultural and grazing best management practices (BMP) implementation projects, a long-term NPS national monitoring project to study BMP effectiveness, and State staff coordinators for watershed/estuary protection efforts.
- CWA § 604(b) funds are contributing to other Central Coast RWQCB planning efforts.

D. Other Non-Regulatory Programs

- ♦ **Morro Bay National Estuary Program** — Through the MBNEP, EPA provides technical assistance for watershed conservation and protection programs in Morro Bay. Additional goals related to managing the MBNEP include: establish working partnerships among federal, state, and local governments; transfer scientific/management information and expertise to program participants; and increase public awareness.

F. Planning

IV. FUNDING

EPA is funded primarily through annual appropriations from the U.S. Congress.

V. ADMINISTRATION

EPA Region 9 in San Francisco is organized into four offices (Regional Administrator, Strategic Planning and Emerging Issues, Communication and Government Relations, and Regional Counsel) and six divisions covering major program activities (Air, Water, Waste Management, Superfund, Cross-Media, and Policy and Management). Most of the programs and functions that relate to protection of the Morro Bay Estuary reside in the Division of Water (the Division contains the following offices: Office of the Director, Monitoring and Assessment, Northern California, Southern California, CWA Standards and Permits, CWA Compliance, Drinking Water, Wetlands Regulatory, Ground Water, State, Tribal, and Municipal Programs). Divisions with functions less directly related to estuary protection include the Policy and Management Division and the Waste Management Division (including Pollution Prevention, several RCRA programs, Program Development, Compliance Assistance, Solid Waste Program, Underground Storage, Tank Program, and Information Management).

For further information, contact:

U.S. EPA, Region 9
Water Management Division, WTR-4
75 Hawthorne St.
San Francisco, CA 94105-3901
(415) 744-2013
<http://www.epa.gov/region09> (Region 9)
<http://www.epa.gov> (National)

Morro Bay National Estuary Program (MBNEP)
1400 3rd Street
Los Osos, CA 93402
(805) 528-8126
<http://www.epa.gov/owowwtr1/estuaries/test/morro.htm> (MBNEP information)

F2. U.S. Army Corps of Engineers (ACOE)

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓	✓	• CWA Section 404 permits (R)
						• Section 10, Rivers and Harbor Act permits (R)
						• Ocean Dumping (R)
✓			✓		✓	• Dredging Projects (RM)
					✓	• Aquatic Ecosystem Restoration Program (RM)
				✓	✓	• Project Modifications for Improvement of the Environment Program (RM)
					✓	• Beneficial Uses of Dredged Material Program (RM)
✓	✓	✓	✓	✓	✓	• Planning Assistance to States Program (F)
				✓		• Flood Plain Management Services Program (NR)
					✓	• Environmental Research (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

ACOE's mission is to develop, control, maintain and conserve the Nation's waterways and wetlands. ACOE plans, designs, builds, and often operates and maintains projects that provide river and harbor navigation, flood control, water supply, hydroelectric power, environmental restoration, wildlife protection, and recreation. ACOE's program authorities related to estuary protection include: the Clean Water Act (CWA); the Rivers and Harbors Act (particularly Sections 9 and 10), the Marine Protection, Research, and Sanctuaries Act (MPRSA) Section 103; the Water Resources Development Act (WRDA); and the Flood Control Act.

II. JURISDICTION

ACOE's jurisdiction is broadly defined as the "waters of the United States" and associated resources. The regulatory geographic responsibilities of the ACOE Districts are generally based upon water basins. The Los Angeles District ACOE has jurisdiction in Morro Bay and its watershed. The Ventura Field Office of the District's Regulatory Branch performs most of the estuary protection functions.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ♦ **Section 404 Permits** — CWA § 404 requires approval prior to discharging dredged or fill materials into waters of the United States. The purpose of the Section 404 program is to insure that the physical, biological, and chemical quality of the Nation's waters is protected from irresponsible and unregulated discharges of dredged or fill material that could permanently alter or destroy these valuable resources. Anyone in violation of the Section 404 Program, either by conducting an unauthorized activity or by violation permit conditions, is subject to civil or criminal action or both. CWA § 309 gives ACOE and EPA the authority to impose administrative penalties. When judicial action is pursued, violators may be required to restore sites and may be subject to payment of fines, imprisonment or both. Typical activities requiring Section 404 permits include:

- Depositing of dredged or fill material in waters of the U.S. or adjacent wetlands (commonly associated with activities such as port development and channel construction and maintenance)
- Site development fill to create residential, commercial, or recreational developments;
- Construction of revetments, groins, breakwaters, levees, dams, dikes, and weirs.

These permits must be reviewed by, and consistent with recommendations of, DFG regarding impacts to fish and wildlife. These permits can only be issued if "water quality certification" is provided by the SWRCB via review by RWQCB. In some cases, these permits are also reviewed by the SLC.

- ♦ **Section 10 Permits** — Section 10 of the Rivers and Harbor Act of 1899 requires approval prior to the accomplishment of any work in or over navigable waters of the United States, or which affects the course, location, condition or capacity of such waters. Typical activities requiring Section 10 permits are:

- Construction of piers, wharves, bulkheads, dolphins, marinas, ramps, floats, intake structures, and cable or pipeline crossings;
- Dredging or excavation.

These permits must be reviewed by, and consistent with recommendations of, DFG regarding impacts to fish and wildlife. In some cases, these permits are also reviewed by the SLC.

- ♦ **Ocean Dumping** — Under authority of the MPRSA, the ACOE, in consultation with EPA, establishes environmental impact criteria to assist in evaluating proposed projects that involve the transport and dumping of dredged material into coastal waters and the ocean. MPRSA primarily regulates the dumping of wastes into the oceans and provides funding for ocean research programs and ocean habitat sanctuaries. The 1992 Ocean Dumping Ban Act prohibits the dumping of any industrial waste or sewage sludge into the ocean.

B. Resource Management Activities/Programs

- ◆ **Dredging Projects** — The ACOE conducts regular dredging at the mouth of Morro Bay to maintain the channel in a passable and safe state. Proposed dredging activities in Morro Bay include expansion by the Department of Parks and Recreation of the small boat marina in Morro Bay, and proposed construction of new waterfront buildings in the City of Morro Bay. The ACOE provides notification of their dredging activities to the RWQCB.
- ◆ **Aquatic Ecosystem Restoration Program** — WRDA Section 206 authorizes the ACOE to carry out aquatic ecosystem restoration projects that will improve the quality of the environment, are in the public interest, and are cost-effective. Non-federal interests must contribute 35% of the cost of construction and 100% of the cost of operation, maintenance, replacement, and rehabilitation. Individual projects are limited to \$5 million in construction costs. This program received initial funding of \$6 million in Fiscal Year 1998.
- ◆ **Project Modifications for Improvement of the Environment Program** — WRDA Section 1135 authorizes a program of modifications to water resources projects constructed by the ACOE for the improvement of the environment. Projects that address degradation of the quality of the environment by an ACOE project may also be undertaken. Non-federal interests must contribute 25% of the cost of construction and usually 100% of the cost of operation, maintenance, replacement, and rehabilitation. Up to 80% of the non-federal share may be provided as work-in-kind. Individual projects are limited to \$5 million.
- ◆ **Beneficial Uses of Dredged Material Program** — WRDA Section 204 authorizes projects to protect, restore, and create aquatic and ecologically related habitats, including wetlands, in connection with dredging an authorized federal navigation project. Non-federal sponsors pay 25% of the project cost and 100% of operation, maintenance, replacement, and rehabilitation costs. ACOE divisions have approval authority for individual projects with an estimated cost of less than \$5 million; larger projects are approved by ACOE headquarters.

C. Finance Mechanisms

- ◆ **Planning Assistance to States Program** — WRDA Section 22 provides authority for the ACOE to assist States, local governments, and other non-federal entities in the preparation of comprehensive plans for the development, use, and conservation of water and related land resources. The program can encompass many types of studies that address water resources issues. Types of studies conducted in recent years under the program include the following: coastal zone management/protection studies; harbor/port studies; wetlands evaluation studies; environmental conservation/restoration studies; flood plain management studies; water quality studies; and water supply and demand studies. Needed planning assistance is determined by individual states. Typical studies are only planning level of detail; they do not include detailed design for project construction. The studies generally involve the analysis of existing data for planning purposes using standard engineering techniques although some data collection is often necessary. Individual studies, of which there may be more than one per state, generally cost \$25,000 to \$75,000 and are cost-shared on a 50% federal-50% non-federal basis. The ACOE has not funded any projects in the Morro Bay watershed in recent years.

D. Other Non-Regulatory Programs

- ♦ **Flood Plain Management Services (FPMS) Program** — The objectives of the FPMS Program are to foster public understanding of the options for dealing with flood hazards, and to promote prudent use and management of the Nation's flood plains. The FPMS Program provides a range of technical services and planning guidance to support effective flood plain management, including: (1) interpreting site-specific data on obstructions to flood flows; (2) providing information on natural and cultural flood plain resources of note; and (3) providing assistance and guidance in the form of "Special Studies" on aspects of flood plain management planning (Special Studies can range from helping a community identify present or future flood plain areas and related problems, to a broad assessment of which of the various remedial measures may be effectively used). Upon request, the ACOE provides program services to non-federal public agencies, including State, regional, and local governments without charge.
- ♦ **Environmental Research** — The ACOE conducts most of its environmental research through the Waterways Experiment Station in Mississippi. ACOE research programs include the following: (1) the **Aquatic Plant and Assistance Program** develops techniques for keeping aquatic vegetation at desirable levels; (2) the **Wetlands Research Program** refines techniques for wetlands delineation, wetlands evaluation, wetlands restoration and development, and wetlands management; (3) the **Wetland Regulatory Assistance Program** provides assistance to ACOE districts in wetland delineation and evaluation; and (4) several **Dredging Research and Assistance Programs** study beneficial uses of dredged material (including for wetland and terrestrial habitat development).

IV. ADMINISTRATION

Morro Bay and its watershed are located in the jurisdiction of the Los Angeles District ACOE. This office includes about 900 staff members and is broken down into four divisions: Program and Project Management, Planning, Engineering, and Contract Operations. The Ventura Field Office of the District's Regulatory Branch performs most of the estuary protection functions.

For further information, contact:

**U.S. Army Corps of Engineers
Los Angeles District
Regulatory Branch
Ventura Field Office
2151 Alessandro Dr., Suite 255
Ventura, CA 93001
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see also <http://www.usace.army.mil>

**U.S. Army Corps of Engineers
Los Angeles District
Planning Division
Coastal Resources Branch
P.O. Box 532711
Los Angeles, CA 90053-2325
(213) 452-3821 or 3824
FAX: (213) 452-4204
e-mail: hly@spl.usace.army.mil**

F3. U.S. Fish and Wildlife Service (USFWS), Dept. of the Interior

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
				✓	✓	• Endangered Species Protection (R)
					✓	• Fish and Wildlife Protection (R)
					✓	• Dredging & Waterway Modification (R)
						• Enforcement (R)
					✓	• Coastal Ecosystem Program (RM)
					✓	• Environmental Contaminants Program (RM)
					✓	• Fishery Resources Program (RM)
					✓	• Irrigation Drainwater Program (RM)
					✓	• Migratory Bird/Waterfowl Protection (RM)
					✓	• National Wildlife Refuge System (RM)
					✓	• Toxic Pollutant/Spill Response & Natural Resource Damage Assessment (RM)
					✓	• Federal Aid programs (F)
					✓	• National Wetlands Inventory (NWI) (NR)
✓	✓	✓	✓	✓	✓	• Nonpoint Source Pollution Projects (NR)
✓	✓	✓	✓	✓	✓	• Contaminant Prevention Education (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

The mission of the USFWS is to conserve, protect, and enhance fish and wildlife habitats. The Service's major responsibilities are for migratory birds, endangered species, certain marine mammals, and freshwater and anadromous fish. Program authorities related to estuary protection include the federal Endangered Species Act (FESA), Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, National Wildlife Refuge System Act, Clean Water Act (CWA), Estuary Protection Act, Marine Mammal Protection Act, and Land and Water Conservation Fund Act.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

II. JURISDICTION

The proponent of any project in which a federal agency is involved in licensing, permitting or funding must consult with the USFWS to determine potential effects on listed species and/or their habitat. This rule applies to potential effects on marine mammals, non-commercial fish, wild birds, endangered species and critical habitats within the jurisdiction of the United States [other than marine species and habitats protected by the National Marine Fisheries Service (NMFS)].

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ◆ **Endangered Species Protection** — The FESA is administered by both USFWS and NMFS. USFWS's administration of the FESA both protects listed species and their ecosystems, and implements actions to recover and restore species to full reproductive capacity. Examples of USFWS activities pursuant to the FESA are listed below.
 - **Listing of Endangered/Threatened Species:** Using the best scientific evidence available, the USFWS identifies species that appear to be endangered (in danger of extinction throughout all or a significant portion of its range) or threatened (in danger of becoming endangered in the foreseeable future). After review by scientists and opportunities for public comment, species that meet FESA-established criteria are placed on the Interior Department's official *List of Endangered and Threatened Wildlife and Plants*. The Act also provides for the designation of critical habitats for endangered and threatened species, as needed. Once listed as federally threatened or endangered species, taking (including harassment) is prohibited unless otherwise approved by the USFWS. A similar process, administered by the California Department of Fish and Game, occurs on the State level, pursuant to the California Endangered Species Act.
 - **Recovery Plans:** USFWS biologists work with scientists from other federal agencies, State agencies, universities, and private organizations to develop "recovery plans" that identify actions needed to save listed species and restore their numbers. Recovery programs may include research, habitat preservation and management, captive breeding, law enforcement, reintroduction of depleted species into suitable areas of their historic range, and other activities. USFWS is the primary federal agency responsible for the protection and recovery of threatened and endangered populations of coastal birds, and provides a supporting role in the recovery of sea turtles.
 - **Section 7 Consultation:** Pursuant to FESA Section 7, the USFWS consults with other federal agencies and renders "biological opinions" on the effects of proposed federal projects on endangered species. Service biologists recommend ways for development projects to avoid harm to endangered species. This process helps to ensure that projects authorized, funded or carried out by federal agencies do not jeopardize the species' existence or result in habitat deterioration, including actions

that would eliminate, degrade, or make less accessible any of the physical or biological features essential to the conservation of the species.

- **Habitat Conservation Plans:** These plans are designed to avoid or resolve conflicts between private development projects and the protection of an endangered species. If a private development project is considered to have potentially harmful effects on an endangered species, a Habitat Conservation Plan can be developed to include long-term measures to protect the species while allowing the development to proceed.
- ◆ **Fish and Wildlife Protection** — Under authority of the Fish and Wildlife Coordination Act, the USFWS ensures that fish and wildlife concerns are considered equally with other water resource interests (e.g., navigation, landfill, hydroelectric power generation, flood control, etc.) whenever a federal agency plans, licenses, or permits a hydromodification project. The Act empowers USFWS and/or NMFS to review and comment on the potential adverse impact on fish and wildlife and their habitat of all new projects and federally permitted projects that affect navigable waters. This authority covers projects permitted under CWA § 404.
- ◆ **Dredging & Waterway Modification** — CWA § 404 requires that the U.S. Army Corps of Engineers consult with the USFWS whenever a permit is requested for the discharge of dredged or fill material into U.S. waters. USFWS reviews dredging permit applications and provides comments to the Corps on the potential effects of proposed activities on fish and wildlife habitat. The USFWS also has the authority to control activities that may affect the habitat of endangered or threatened species.
- ◆ **Enforcement** — USFWS agents/inspectors enforce treaty obligations and federal wildlife laws that protect endangered species, migratory birds, certain marine mammals, and fisheries.

B. Resource Management Activities/Programs

- ◆ **Coastal Ecosystem Program** — The Coastal Ecosystem Program is an integral component of all USFWS's efforts, activities and authorities related to the conservation of coastal resources. The Program's activities involve tailoring individual bay/estuary efforts to meet the challenges of the watersheds in which the efforts occur. This process includes seven functions: (1) coordinate USFWS activities in the watershed; (2) develop partnerships to accomplish coastal habitat restoration projects; (3) compile and manage existing data; (4) assist with the identification of priority resource needs and solutions; (5) identify data gaps; (6) develop status and trend information; and (7) provide public outreach and education activities.
- ◆ **Environmental Contaminants Program (ECP)** — The ECP directs efforts to identify and assess contaminant effects on fish and wildlife in order to prevent, reduce, and/or eliminate contamination problems. The program also documents the interrelationships between contaminants and fish and wildlife impacts (i.e., fate and effects). ECP activities are integrated into other USFWS programs and activities. For example, USFWS responds to and assesses the impacts of oil spills, point/nonpoint source pollution, and

hazardous materials in coastal areas. In Morro Bay, USFWS has been working with the SLC to prevent pollution from derelict vessels. The ECP also includes efforts to repair damages to living resources at Superfund sites and other contaminated or polluted habitats. USFWS also conducts research for NOAA on marine debris ingestion rates and probable effects on seabirds, and cooperates with State agencies to educate fisherman and boaters on the hazards of marine debris. The CWA allows USFWS to monitor pesticides and toxic chemicals to develop and provide information on the build-up of persistent chemicals and pollutants in fish and wildlife populations.

- ◆ **Fisheries Resource Program** — This program allows the USFWS to operate national fish hatcheries and to conduct programs to conserve and restore nationally significant fisheries. Through the Recreational Fisheries Stewardship Initiative, the USFWS works to strengthen the partnership among State, federal, and tribal governments, the fishing industry, and private fishery conservation groups to conserve and enhance the Nation's recreational fisheries.
- ◆ **Irrigation Drainwater Program** — Under this program, USFWS is determining the causes and degree of problems associated with excessive levels of micronutrients in irrigation wastewaters. Controls and alternatives to mitigate these problems are under development.
- ◆ **Migratory Bird & Waterfowl Protection** — Because many bird species fly thousands of miles in their annual migrations, they cannot be effectively conserved by any single state or nation, but only through cooperative efforts. Through the Migratory Bird Program and the North American Waterfowl Management (NAWM) Plan, USFWS cooperates with a broad array of partners to ensure the conservation of many species of coastal migratory birds, including waterfowl, and other water and shorebirds. For example, the USFWS regulates hunting of migratory birds, studies populations, and acquires and manages many national wildlife refuges. The NAWM Plan is a long-term program to preserve and restore habitat for waterfowl and other wildlife.
- ◆ **National Wildlife Refuge System** — The USFWS acquires, protects and manages unique ecosystems necessary to sustain fish and wildlife, including migratory birds and endangered species. Morro Bay is not a part of the National Wildlife Refuge System.
- ◆ **Toxic Pollutant/Spill Response & Natural Resource Damage Assessment (NRDA)** — The USFWS responds to emergency situations, such as oil and other hazardous spills that may affect wildlife in an area. USFWS staff participate in the Regional Response Team, which first attempts to deter wildlife from entering a contaminated area, then attempts to rescue and rehabilitate oiled wildlife. Completion of the USFWS's National and Regional Spill Response Contingency Plans will focus Service efforts on fish and wildlife response actions and spill management. The Service Incident Command System (ICS) management system will help to streamline planning efforts for regional involvement in the area contingency planning process as required by the federal Oil Pollution Act.

Pursuing financial compensation for the public is a key aspect of the USFWS Environmental Contaminants program role in the NRDA program, which also seeks

restoration of lost or injured trust resources as a result of an oil or chemical spill. The USFWS is the only federal agency with trustee responsibility for both coastal and inland spills. Most of these natural resource damage assessments and restorations represent cooperative joint efforts with other federal, State, tribal trustees, private citizens groups, and responsible parties.

C. Finance Mechanisms

- ◆ **Federal Aid Programs** — USFWS Region 1 administers several federal aid grants which are issued primarily to state fish and wildlife agencies. These grants, identified by their enabling Acts, include those listed below.
 - Grants issued pursuant to the **Clean Vessel Act of 1992** are used to provide pumpout and dump stations for boaters to dispose of human waste in an environmentally sound manner. Pumpout stations are used to pump waste out of recreational boat holding tanks. Dump stations are used to empty portable toilets.
 - The **Coastal Wetlands Planning, Protection and Restoration Act** authorizes the USFWS to grant funds to coastal states to carry out wetlands conservation projects. National Coastal Wetlands grants are available for (1) the acquisition of interests in coastal lands or waters, and (2) the restoration, management or enhancement of coastal wetlands ecosystems. Eligible projects must provide for long-term conservation of such lands and waters and the hydrology, water quality, and fish and wildlife dependent thereon. The **Small Wetlands Acquisition Program**, administered by USFWS, offers landowners the opportunity to sell wetlands and surrounding upland area outright, or to enter into a perpetual easement agreement that places a restriction on the wetlands. Lease and purchase prices under this program reflect current market conditions.
 - The Secretary of the Interior provides funding under **FESA Section 6** to states for the purpose of conserving endangered or threatened species. Grants may be used to fund endangered/threatened species projects such as fisheries and habitat improvement projects.
 - **Partnerships for Wildlife Act** funds are used to establish a partnership among the USFWS, designated state fish and wildlife agencies, and private organizations and individuals: (1) to carry out wildlife conservation and appreciation projects to conserve the entire array of diverse fish and wildlife species, and to provide opportunities for the public to use and enjoy these species through non-consumptive activities; (2) to enable designated state agencies to respond more fully and use their statutory and administrative authorities by carrying out wildlife conservation and appreciation projects; and (3) to encourage private donations, under the leadership of the States and National Fish and Wildlife Foundation, to carry out wildlife conservation and appreciation projects. Through the **Partners for Wildlife Program**, USFWS assists private land owners in the restoration of wetlands and other fish and wildlife habitat. Additional funds for the purchase of wetlands are available through USFWS's Land and Water Conservation Fund.

- **Sport Fish Restoration Act** funds are used to increase sport fishing and recreational boating opportunities through wise investment of angler's and boater's tax dollars in state sport fish projects, including fishery research, management, and development; fishing and boating access improvements; and aquatic education.
- **Wildlife Restoration Act** funds are used in part for the restoration, conservation, management and enhancement of wild birds and wild mammals, and the provision for public use of the benefits from these resources.

D. Other Non-Regulatory Programs

- ◆ **National Wetlands Inventory (NWI)** — The NWI was established in 1974 to develop and disseminate data on the characteristics and extent of the Nation's wetlands. The NWI provides paper and digital wetland maps at various scales. NWI maps are for sale and can be obtained by calling 1-800-USA-MAPS; NWI also provides free Internet access to its digital map data files at <http://www.nwi.fws.gov>.
- ◆ **Nonpoint Source (NPS) Pollution Projects** — USFWS focuses attention on NPS pollution problems in a number of areas. For example, USFWS has conducted research to define the scope and effect of pollutants from urban and agricultural runoff, mining, silviculture, and hydromodification on fish and wildlife species and their habitats. USFWS has also conducted special information and education efforts to encourage farm owners to participate in the USDA Conservation Reserve Program, and has worked with the Agricultural Extension Service to develop a pamphlet emphasizing the benefits of riparian vegetation in reducing NPS pollution. USFWS routinely provides recommendations on best management practices (BMPs) to control NPS pollution when reviewing permit/license applications, federal project construction and operation plans, resource management plans, conservation easements, and other types of land management activities. Measures to mitigate damage to fish and wildlife resources or their habitats are included in these recommendations.
- ◆ **Contaminant Prevention Education** — The USFWS furthers its efforts in contaminant prevention by providing technical and legal training for personnel in the contaminants profession and associated disciplines including law enforcement, fisheries, and refuges. Participants in recent sessions—including *Pesticide Effects to Fish and Wildlife Resources*, *Environmental Investigations*, and *Wildlife Mortality Workshop* included personnel from federal, state, tribal, and county agencies and the private sector. This interdisciplinary, interagency approach emphasizes that contaminant prevention is most effectively and efficiently accomplished through cooperation and collaboration.

IV. ADMINISTRATION

USFWS functions are conducted out of a Headquarters office, Regional Offices, and staff offices. The Morro Bay Estuary is included in Region 1 which encompasses the western coastal states. Most of the functions related to the Morro Bay Estuary are performed out of the Office of Ecological Services in Ventura. This office primarily performs review of permits, grants administration and regulatory activities. For further information, contact:

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USFWS, Office of Ecological Services
2493 Portola Rd. , Suite B
Ventura, CA 93003
(805) 644-1766

USFWS, Pacific Northwest Region (Region 1)
911 NE 11th Ave.
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(503) 231-6121
<http://www.r1.fws.gov>

USFWS Headquarters
1849 C St., NW
Washington, DC 20240
(202) 208-5634
<http://www.fws.gov>

F4. Natural Resources Conservation Service (NRCS), USDA

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓	✓	• Hydrologic Unit Area Project (RM)
						• Coordinated Resource Management and Planning (CRMP) Process (RM)
✓					✓	• Resource Conservation & Development Program (RM)
						• Small Watershed Program and Flood Prevention Program (RM)
✓	✓	✓	✓	✓	✓	• Watershed Surveys & Planning (RM)
						• Conservation Reserve Program (F)
✓	✓	✓			✓	• Environmental Quality Incentives Program (F)
✓		✓		✓	✓	• Wildlife Habitat Incentives Program (F)
✓	✓	✓	✓	✓	✓	• Wetlands Reserve Program (NR)
✓	✓	✓	✓	✓	✓	• Conservation Technical Assistance (NR)
✓	✓	✓	✓	✓	✓	• Conservation of Private Grazing Land Initiative (NR)
✓		✓				• Outreach/Assistance for Socially Disadvantaged Farmers/Ranchers (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITIES

NRCS's mission is to provide leadership in a partnership effort to help people conserve, improve, and sustain natural resources on private land. NRCS is USDA's primary technical agency in the area of soil and water conservation, and in water quality. It is responsible for developing and carrying out national soil and water conservation programs, and assisting in agricultural pollution control, environmental improvements, and rural community development. Critically important to NRCS's conservation progress in the West is the agency's relationship with partners across the region, especially conservation districts and state, tribal, and island conservation agencies. NRCS program authorities related to estuary protection include the 1985, 1990, and 1996 Farm Bills, Watershed and Flood Prevention Act, Food Security Act (as amended by the Food, Agriculture, Conservation and Trade Act of 1990), Federal Agriculture Improvement and Reform Act of 1996, and wetlands requirements of CWA Section 404.

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- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

II. JURISDICTION

NRCS is a federal agency that relies on local/county conservation districts, other State and federal agencies, volunteers, agricultural and environmental groups, and professional societies. Most of its employees serve in USDA's network of local- and county-based offices.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

This agency does not implement regulatory activities or programs.

B. Resource Management Activities/Programs

- ♦ **Morro Bay Watershed Hydrologic Unit Area Project** -- The Morro Bay Watershed Hydrologic Unit Area (HUA) Project is a cooperative program by local, county, state and federal agencies, private interest groups, concerned citizens and landowners within the Morro Bay watershed to reduce nonpoint source pollution and sedimentation of the Bay. Funded by USDA, the Morro Bay HUA project began in 1991 with cooperating efforts from the National Resources Conservation Service (NRCS), the University of California Cooperative Extension (UCCE), the Farm Service Agency (FSA) and the Coastal San Luis Resource Conservation District (CSLRCD).

The objective of the Hydrologic Unit Area Project is to improve water quality and quantity in the Morro Bay Estuary and to maintain and improve the designated beneficial use in the estuary and the watershed.

1. Reduce accelerated erosion and improve sustainability of riparian and upland agro-ecosystems. The clientele are private ranchers who manage both public and private lands in the watershed and public land managers.
2. Reduce accelerated erosion and improve water and pesticide management on cropland. Among clientele are limited resource farmers and minority groups.
3. Reduce rural and urban non-point source pollution by assisting planning agencies with review of drainage, erosion, and sediment control plans for parcel maps and site plans. The focus of the assistance will be to improve water quality and preserve prime and locally important farmlands by training the agency personnel on erosion and sediment control planning and assisting them in the effort to preserve farmlands.
4. Reducing erosion, water, and nutrient problems associated with small rural ownership's by assisting the landowners with information, education, and technical assistance.
5. Increase the awareness, understanding, and appreciation among youth of the importance and value of watershed environments.
6. Develop a 4-H Watershed Environment Project suitable for delivery, through non-formal educational settings to youth in grades 4-12.

7. Provide research-based educational materials to youth and adults that address a natural resource area of nationwide concern and where no similar materials exist.

To date more than 225 conservation practices include stream bank protection, buffer strips, riparian fencing, floodway seedings, livestock water development, cross fencing, fish habitat improvement, time controlled grazing, windbreaks, grassy waterways and many, many more. The HUA team has held two Rangeland Water Quality Shout Courses for local landowners. The NRCS worked with Camp San Luis Obispo to develop a Land Management Plan for the camp. The NRCS assisted the County to successfully close the Los Osos landfill after the County's first attempt failed. The NRCS was able to secure a permanent wetland reserve easement on the 112 acre Martines property adjacent to Los Osos and Warden Creeks. This land provides wildlife habitat as well as being a sediment trap. The NRCS had provided the technical and financial assistance to the Chorro Flats Enhancement Project. The Chorro Flats Enhancement Project reconnected Chorro Creek with its historic floodplain, thereby reducing sediment delivery to Morro Bay and creating 85 acres of habitat while permanently protecting 45 acres for agriculture.

- ◆ **Coordinated Resource Management and Planning (CRMP) Process** — The NRCS, local Resource Conservation Districts (RCDs), and the University of California Cooperative Extension have connections and expertise to assist in organizing a CRMP effort for a local area. The CRMP process is a form of community-based resource planning that attempts to bring federal, State and local agencies together with interested local groups to identify resource problems, organize information, and develop recommended programs and plans to better manage their resources.
- ◆ **Resource Conservation & Development (RC&D) Program** — The purpose of the RC&D program is to encourage resource conservation, guide community development and utilization of natural resources, support water management, and to enhance the environment in authorized RC&D areas. It improves the capability of State and local governments and local nonprofit organizations in rural areas to plan, develop and carry out programs for resource conservation and sustained utilization. The program also establishes or improves coordination systems in rural areas. Current program objectives focus on improvement of quality of life achieved through natural resources conservation and community development which leads to sustainable communities, prudent planned utilization, management and conservation of natural resources. Authorized RC&D areas are locally sponsored areas designated by the Secretary of Agriculture which qualify for RC&D technical and financial assistance program funds. NRCS can provide grants for land conservation, water management, community development, and environmental needs in authorized RC&D areas. The office of the Central Coast RC&D Council is located in Morro Bay.
- ◆ **Small Watershed Program and Flood Prevention Program** — The Small Watershed Program works through local government sponsors and helps participants solve natural resource and related economic problems on a watershed basis. Projects include watershed protection, flood prevention, erosion and sediment control, water supply, water quality, fish and wildlife habitat enhancement, wetlands creation and restoration, and

public recreation in watersheds of 250,000 or fewer acres. Both technical and financial assistance are available. This program is not utilized in the Morro Bay watershed at the present time.

- ♦ **Watershed Surveys and Planning** — The purpose of the program is to assist Federal, State, and local agencies and tribal governments to protect watersheds from damage caused by erosion, floodwater, and sediment and to conserve and develop water and land resources. Resource concerns addressed by the program include water quality, opportunities for water conservation, wetland and water storage capacity, agricultural drought problems, rural development, municipal and industrial water needs, upstream flood damages, and water needs for fish, wildlife, and forest-based industries. Types of surveys and plans include watershed plans, river basin surveys and studies, flood hazard analyses, and flood plain management assistance. The focus of these plans is to identify solutions that use land treatment and nonstructural measures to solve resource problems. The Watershed and Flood Prevention Act authorized this program. Prior to fiscal year 1996, small watershed planning activities and the cooperative river basin surveys and investigations authorized by Section 6 of the Act were operated as separate programs. The 1996 appropriations act combined the activities into a single program entitled the Watershed Surveys and Planning program. Activities under both programs are continuing under this authority. This group prepared the 1989 "Erosion and Sediment Study" and the "Morro Bay Watershed Enhancement Plan."

C. Finance Mechanisms

- ♦ **Conservation Reserve Program (CRP)** — In conjunction with the FSA, NRCS administers the CRP, which is designed to remove highly erodible croplands from production, reduce sedimentation in streams and lakes, improve water quality, establish wildlife habitat, and enhance forest and wetland resources. CRP encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover (e.g., tame or native grasses, wildlife plantings, trees, filterstrips, or riparian buffers). Land owners wishing to enter any of their land in the CRP sign ten-year agreements with the Department of Agriculture stating that they will not perform any activities on the land for those ten years. Participants receive annual payments, and 50% cost sharing is provided to establish the vegetative cover. Over 100,000 acres in SLO County are enrolled in this program, however none are in the Morro Bay Watershed.
- ♦ **Environmental Quality Incentives Program (EQIP)** — The EQIP provides technical, educational, and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program provides assistance to farmers and ranchers in complying with Federal, State, and tribal environmental laws, and encourages environmental enhancement. The program is funded through the Commodity Credit Corporation. The purposes of the program are achieved through the implementation of a conservation plan which includes structural, vegetative, and land management practices on eligible land. Five- to ten-year contracts are made with eligible producers. Cost-share payments may be made to implement one or more eligible structural or vegetative

practices, such as animal waste management facilities, terraces, filter strips, tree planting, and permanent wildlife habitat. Incentive payments can be made to implement one or more land management practices, such as nutrient management, pest management, and grazing land management. Fifty per cent (50%) of the funding available for the program will be targeted at natural resource concerns relating to livestock production. The program is carried-out primarily in priority areas that may be watersheds, regions, or multi-state areas, and for significant statewide natural resource concerns that are outside of geographic priority areas. Available but not being tapped into in the Morro Bay Watershed.

- ◆ **Wildlife Habitat Incentives Program (WHIP)** — WHIP provides financial incentives to develop habitat for fish and wildlife on private lands. Participants agree to implement a wildlife habitat development plan and USDA agrees to provide cost-share assistance for the initial implementation of wildlife habitat development practices. USDA and program participants enter into a cost-share agreement for wildlife habitat development. Available but not being tapped into in Morro Bay Watershed.

D. Other Non-Regulatory Programs

- ◆ **Wetlands Reserve Program (WRP)** — The WRP is a voluntary program, administered by NRCS and the FSA, to restore wetlands. Areas of farmed wetlands and formerly converted cropland are the principal wetland types expected to be placed into the program. Participating landowners can establish conservation easements of either permanent or 30-year duration, or can enter into restoration cost-share agreements where no easement is involved. In exchange for establishing a permanent easement, the landowner receives payment up to the agricultural value of the land and 100% of the restoration costs for restoring the wetlands. The 30-year easement payment is 75% of what would be provided for a permanent easement on the same site and 75% of the restoration cost. The voluntary agreements are for a minimum 10-year duration and provide for 75% of the cost of restoring the involved wetlands. Easements and restoration cost-share agreements establish wetland protection and restoration as the primary land use for the duration of the easement or agreement. All lands accepted into the Wetland Reserve Program will have to be maintained according to a wetland restoration plan for the life of the easement. In all instances, landowners continue to control access to their land. This program has been used twice in the Morro Bay Watershed. The Chorro Flats Project and the Los Osos Creek Wetland Reserve.
- ◆ **Conservation Technical Assistance (CTA)** — This program helps land users, communities, and local, State and federal agencies to plan and implement conservation systems. These systems help to reduce erosion, improve soil and water quality, improve and conserve wetlands, enhance fish and wildlife habitat, improve air quality, reduce upstream flooding, and improve the condition of pasture, range, and woodlands. Objectives of the CTA program are:

- to assist individual landusers, communities, conservation districts, and other units of State and local government and Federal agencies to meet their goals for resource stewardship and assist individuals to comply with State and local requirements.
- to assist agricultural producers to comply with the highly erodible land (HEL) and wetland (Swampbuster) provisions of the 1985 Food Security Act as amended by the 1990 Food, Agriculture, Conservation and Trade Act, the 1966 Federal Agriculture Improvement and Reform Act, and CWA § 404 wetlands requirements. NRCS makes HEL and wetland determinations and helps land users develop and implement conservation plans.
- to provide technical assistance to participants in USDA cost-share and conservation incentive programs.
- to collect, analyze, interpret, display, and disseminate information about the condition and trends of the Nation's soil and other natural resources so that people can make good decisions about resource use and about public policies for resource conservation.
- to develop effective science-based technologies for natural resource assessment, management, and conservation.

This is the basic program that provides NRCS staff time and effort to participate in the NEP.

- ◆ **Conservation of Private Grazing Land Initiative (CPGL)** — The CPGL initiative is intended to ensure that technical, educational, and related assistance is provided to those who own private grazing lands by increasing NRCS staff at the local level. It is not a cost share program. Improved technical assistance will offer opportunities for: better grazing land management; protecting soil from erosive wind and water; using more energy-efficient ways to produce food and fiber; conserving water; providing habitat for wildlife; sustaining forage and grazing plants; using plants to sequester greenhouse gases and increase soil organic matter; and using grazing lands as a source of biomass energy and raw materials for industrial products. This program has minimal impact in the Morro Bay Watershed. Appropriately trained NRCS conservationists are already available and relying on other programs to provide technical assistance on grazing issues.
- ◆ **Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers** — Section 2501 of the Food, Agriculture, Conservation, and Trade Act requires the Secretary of Agriculture to provide outreach and technical assistance to socially disadvantaged farmers and ranchers. Administration of the program was transferred to the NRCS from the FSA beginning in fiscal year 1997. The overall goal of the program is to increase the number of small or limited resource and minority producers and directly improve the farm income of these producers. Objectives are to make grants and enter into agreements with community-based organizations and educational institutions to provide outreach and technical assistance. This program is under utilized in the Morro Bay Watershed but it is unclear how extensive the need is in this watershed.

IV. ADMINISTRATION

NRCS activities are conducted primarily from Field Offices, as well as State, Regional, and Major Land Resource Offices. NRCS has a Field Office in the Morro Bay watershed that provides technical assistance/education and administers financial incentive programs for landowners and farmers in the watershed.

For further information, contact:

NRCS, Morro Bay Field Office
545 Main Street, Suite B-1
Morro Bay, CA 93442
(805) 772-4391

NRCS, West Regional Office
650 Capitol Mall, Room 7104
Sacramento, CA 95814-4706
(916) 491-2000
<http://rcw.nrcs.usda.gov>

NRCS California State Office
2121-C Second St., Suite 102
Davis, CA 95616
(530) 757-8200
<http://www.ca.nrcs.usda.gov>

NRCS, Headquarters
P.O. Box 2890
14th St. & Independence Ave, SW
Washington, DC 20013
(202) 720-1845
<http://www.nrcs.usda.gov>

NRCS, Templeton Service Center
65 Main Street, Suite 108
Templeton, CA 93465

Secondary Agencies:**F5. Farm Service Agency (FSA), USDA**

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓		✓			✓	• Conservation Reserve Program (RM)
✓					✓	• Emergency Conservation Program (RM)
✓		✓			✓	• Environmental Quality Incentives Program (RM)
✓		✓			✓	• Flood Risk Reduction Program (RM)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

FSA supports American farmers through agricultural, farm loan, conservation, commodity, and other programs. With offices established in almost every county, FSA administers its programs at a local/county/grassroots level. For example, federal farm programs are administered locally as follows: farmers eligible to participate in these programs elect a three- to five-person county committee which reviews county office operations and decides how to apply the programs. In the Morro Bay area, a local FSA office administers conservation cost-share programs for landowners and farmers. Local activities are coordinated with the Morro Bay Watershed Hydrologic Unit Area Project. FSA provides funding for projects through programs such as those listed below.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)**A. Regulatory Activities/Programs**

This agency does not implement regulatory activities or programs.

A. Resource Management Activities/Programs

- ♦ **Conservation Reserve Program (CRP)** — The CRP, administered by FSA and the Natural Resources Conservation Service (NRCS), is designed to remove highly erodible croplands from production, reduce sedimentation in streams and lakes, improve water quality, establish wildlife habitat, and enhance forest and wetland resources. CRP encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover (e.g., tame or native grasses, wildlife plantings, trees, filterstrips, or riparian buffers).

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

Land owners wishing to enter any of their land in the CRP sign 10-year agreements stating that they will not perform any activities on the land for those 10 years. (See also NRCS)

- ♦ **Emergency Conservation Program (ECP)** — The ECP provides cost-share funding for damage occurring from floods and other natural disasters. Funds can be used to restore cropland and replace conservation structures to pre-disaster conditions.
- ♦ **Environmental Quality Incentives Program (EQIP)** — EQIP offers cost-share and incentive payments to agricultural producers who voluntarily enter into 5- to 10-year contracts to implement conservation practices on their land. (See also NRCS)
- ♦ **Flood Risk Reduction Program** — This program allows farmers who voluntarily enter into contracts to receive payments on lands with high flood potential. In return, participants agree to forego certain USDA program benefits. The contract payments provide incentives to move farming operations from frequently flooded land.

A. Finance Mechanisms

This agency does not implement finance mechanism activities or programs.

A. Other Non-Regulatory Programs

This agency does not implement any other non-regulatory activities or programs.

IV. ADMINISTRATION

For further information, contact:

San Luis Obispo FSA Office	California State FSA Office	USDA FSA
65 Main St., Suite 106	1303 J. St., Suite 300	PO Box 2415, STOP 0506
Templeton, CA 93465	Sacramento, CA 95814	Washington, DC 20013
(805) 434-0398	(916) 498-5311	http://www.fsa.usda.gov

F6. National Oceanic and Atmospheric Administration (NOAA), Dept. of Commerce

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓	✓	• Coastal Zone Management Program (RM)
✓	✓	✓	✓	✓	✓	• Coastal Nonpoint Pollution Control Program (RM)
✓	✓	✓	✓	✓	✓	• Status and Trends (RM)
✓	✓	✓	✓	✓	✓	• Strategic Estuarine Assessment (RM)
✓	✓	✓	✓	✓	✓	• Sea Grant Program (F)
✓	✓	✓	✓	✓	✓	• National Coastal Guardian Campaign (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY

NOAA's mission is to describe and predict changes in the Earth's environment and to conserve and manage wisely the Nation's coastal and marine resources. The agency acts as the federal government's primary source of data and information on problems of the ocean and atmosphere, and directs its scientific and technical expertise towards providing a better understanding and more effective management of the stresses that ever increasing economic and recreational demands are placing on coastal environments. Multiple roles of NOAA include observation, research, development and regulation. Branches of NOAA include the National Marine Fisheries Service (NMFS) which is discussed separately below and the National Ocean Service (NOS) which maintains a variety of estuarine and marine activities (including the management of National Estuarine Research Reserves and National Marine Sanctuaries). NOAA's strategy consists of seven interrelated goals for environmental assessment, prediction, and stewardship: (1) advance short-term warnings and forecast services; (2) implement seasonal to interannual climate forecasts; (3) assess and predict decadal to centennial change; (4) promote safe navigation; (5) build sustainable fisheries; (6) recover protected species; and (7) sustain healthy ecosystems.

II. JURISDICTION

NOAA's jurisdiction includes estuaries and coastal waters throughout the Nation and federal territorial waters within three to 200 nautical miles. This jurisdiction includes marine, estuarine, anadromous fishes as well as commercial fishes (finfish and shellfish), endangered marine species, critical marine habitat and most marine mammals within the territory of the United

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

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Land owners wishing to enter any of their land in the CRP sign 10-year agreements stating that they will not perform any activities on the land for those 10 years. (See also NRCS)

- ◆ **Emergency Conservation Program (ECP)** — The ECP provides cost-share funding for damage occurring from floods and other natural disasters. Funds can be used to restore cropland and replace conservation structures to pre-disaster conditions.
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A. Finance Mechanisms

This agency does not implement finance mechanism activities or programs.

A. Other Non-Regulatory Programs

This agency does not implement any other non-regulatory activities or programs.

IV. ADMINISTRATION

For further information, contact:

San Luis Obispo FSA Office
65 Main St., Suite 106
Templeton, CA 93465
(805) 434-0398

California State FSA Office
1303 J. St., Suite 300
Sacramento, CA 95814
(916) 498-5311

USDA FSA
PO Box 2415, STOP 0506
Washington, DC 20013
<http://www.fsa.usda.gov>

F6. National Oceanic and Atmospheric Administration (NOAA), Dept. of Commerce

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓	✓	✓	• Coastal Zone Management Program (RM)
✓	✓	✓	✓	✓	✓	• Coastal Nonpoint Pollution Control Program (RM)
✓	✓	✓	✓	✓	✓	• Status and Trends (RM)
✓	✓	✓	✓	✓	✓	• Strategic Estuarine Assessment (RM)
✓	✓	✓	✓	✓	✓	• Sea Grant Program (F)
✓	✓	✓	✓	✓	✓	• National Coastal Guardian Campaign (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY

NOAA's mission is to describe and predict changes in the Earth's environment and to conserve and manage wisely the Nation's coastal and marine resources. The agency acts as the federal government's primary source of data and information on problems of the ocean and atmosphere, and directs its scientific and technical expertise towards providing a better understanding and more effective management of the stresses that ever increasing economic and recreational demands are placing on coastal environments. Multiple roles of NOAA include observation, research, development and regulation. Branches of NOAA include the National Marine Fisheries Service (NMFS) which is discussed separately below and the National Ocean Service (NOS) which maintains a variety of estuarine and marine activities (including the management of National Estuarine Research Reserves and National Marine Sanctuaries). NOAA's strategy consists of seven interrelated goals for environmental assessment, prediction, and stewardship: (1) advance short-term warnings and forecast services; (2) implement seasonal to interannual climate forecasts; (3) assess and predict decadal to centennial change; (4) promote safe navigation; (5) build sustainable fisheries; (6) recover protected species; and (7) sustain healthy ecosystems.

II. JURISDICTION

NOAA's jurisdiction includes estuaries and coastal waters throughout the Nation and federal territorial waters within three to 200 nautical miles. This jurisdiction includes marine, estuarine, anadromous fishes as well as commercial fishes (finfish and shellfish), endangered marine species, critical marine habitat and most marine mammals within the territory of the United

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

States. NOAA authority related to estuary protection includes the Coastal Zone Management Act (CZMA) including the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), the National Ocean Survey Act, and the Marine Protection, Research, and Sanctuaries Act (MPRSA).

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

- ♦ **Coastal Zone Management (CZM) Program** — The National CZM Program is a voluntary partnership between the federal government and coastal states authorized by the CZMA. NOAA efforts include: (1) preserve, protect, develop, and where possible, restore and enhance the resources of the Nation's coastal zone for this and succeeding generations; (2) encourage and assist states to effectively exercise their responsibilities in the coastal zone; and (3) encourage participation, cooperation, and coordination of the public, federal, state, local, interstate and regional agencies, and governments affecting the coastal zone. The California Coastal Management Program (California's CZM program) was approved by NOAA in 1977.
- ♦ **Coastal Nonpoint Pollution Control Program (CNPCP)** — A recent, significant legislative development affecting coastal watersheds, CZARA provides a link between California's water quality program under Clean Water Act § 319 [administered by the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards] and the State CZM program under CZMA § 306 [administered by the California Coastal Commission (CCC) and San Francisco Bay Conservation and Development Commission]. CZARA § 6217 requires California (1) to prepare a CNPCP, (2) to implement management measures (similar to Best Management Practices) in conformance with EPA guidance, and (3) to implement additional management measures for specified land uses and "Critical Coastal Areas" adjacent to impaired or threatened coastal waters (i.e., watersheds that contain waterbodies identified in the State *Water Quality Assessment* as not meeting water quality standards). The management measures guidance recognizes six land use types that should be addressed in coastal areas: urban, agriculture, forestry, marinas and recreational boating, hydromodification, and wetlands. The guidance also identifies management practices for each land use type for the purpose of reducing the discharge of pollutants including sediment, nutrients and chemicals from such activities. The purpose of the program is to strengthen State and local efforts to manage land use activities that degrade coastal waters and critical habitats.

In 1998, NOAA and the EPA reviewed and approved with conditions California's CNPCP prepared by the SWRCB and CCC. The CNPCP, which will be implemented Statewide, builds upon the State's *Nonpoint Source Plan*. The State also identifies the Morro Bay watershed as a Critical Coastal Area. In these Critical Coastal Areas, the State proposes to target specific watersheds for focused attention, including funding of pilot watersheds to test new approaches, financial assistance through grants and loans, watershed assessments

conducted by multi-agency assessment teams and training of local groups in technical and planning functions. (See also the SWRCB and CCC institutional inventories.)

- ◆ **Status and Trends** — Under MPRSA, NOAA assesses estuarine and coastal resources. Research topics include monitoring of ambient pollutant levels in sediments, fish and the water column, and pollutant effects on estuarine habitat, estuarine organisms, and human health. Research may be conducted by other agencies. For example USFWS conducts research on marine debris ingestion rates and probable effects on seabirds for NOAA.
- ◆ **Strategic Estuarine Assessment (SEA)** — NOAA assesses resource uses and the scale and scope of existing problems, and provides data to identify future research and monitoring needs. SEA products include a National Estuarine Inventory, Coastal Wetlands Inventory, National Coastal Pollution Discharge Inventory, and an Estuarine Eutrophication Survey (a national survey of the conditions and trends of nutrient enrichment and eutrophication).

C. Finance Mechanisms

- ◆ **Sea Grant Program** — The National Sea Grant Program encourages the wise stewardship of marine resources through research, education, outreach, and technical and financial assistance. California Sea Grant, administered by the University of California, selects research projects on the basis of competitive proposals that address a diversity of problems and opportunities.

D. Other Non-Regulatory Programs

- ◆ **National Coastal Guardian Campaign** — This educational campaign brings attention to the needs of the coast, public impacts on coastal areas, and how the public can protect the coast.

IV. ADMINISTRATION

For further information, contact:

National Ocean Service
1305 East-West Highway
Silver Spring, MD 20910
(301) 713-3074

<http://www.nos.noaa.gov>

See also <http://www.noaa.gov> (NOAA)

California Sea Grant College System
University of California
9500 Gilman Drive
La Jolla, CA 92093-0232
<http://www-csgc.ucsd.edu>

F7. National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), Dept. of Commerce

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓		✓	✓	✓	✓	• Endangered Species (R)
✓		✓	✓	✓	✓	• Fisheries Stock Assessment (RM)
✓	✓	✓	✓	✓	✓	• Habitat Conservation Program (RM)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

NMFS is the steward of the Nation's living marine resources. Its jurisdiction includes estuaries and coastal waters throughout the Nation, federal territorial waters within three to 200 nautical miles, and waters within three nautical miles for the purpose of protecting endangered or threatened species. This jurisdiction includes marine, estuarine, anadromous and commercial fishes (finfish and shellfish), endangered marine species, critical marine habitat and most marine mammals. Program authorities related to estuary protection include the Coastal Zone Management Act, Magnuson Fishery Conservation and Management Act, Endangered Species Act, U.S. Fish and Wildlife Coordination Act, National Environmental Policy Act, Marine Mammal Protection Act, Federal Aid in Wildlife Restoration Act, and Federal Aid in Sport Fish Restoration and Management Projects Act. NMFS programs include those listed below.

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

- ◆ **Endangered Species** — Under the Endangered Species Act, NMFS maintains regulatory authority in taking action against those parties who unwittingly or knowingly harm threatened or endangered species, and/or critical habitats. Furthermore, the NMFS maintains authority regarding inspection of U.S. commercial fishery catches. NMFS also generates biological assessments to determine the presence of endangered or threatened species, and develops mitigation plans in the event a project is approved which might affect these species. NMFS coordinates with USFWS and DFG regarding the California Endangered Species Act.

B. Resource Management Activities/Programs

- ◆ **Fisheries Stock Assessment** — NMFS is in charge of the routine assessment of stocks and the management of stocks through fisheries regulation. NMFS works with regional Fishery Management Councils (comprised of state governments, commercial/recreational fisheries, and environmental and consumer groups) and regional Fishery Science Center Laboratories.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

- ♦ **Habitat Conservation Program** — NMFS compiles data on the ecological importance of marine and estuarine habitats and develops recommendations to reduce coastal and habitat degradation. Aspects to the program include: (1) identify, list, and develop recovery plans for endangered/threatened species through designation of critical habitats, (2) review permits and legislation, and (3) advise on federally funded projects that potentially affect aquatic habitats.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

This agency does not implement any other non-regulatory activities or programs.

IV. ADMINISTRATION

For further information, contact:

National Marine Fisheries Service, SW Region
501 West Ocean Blvd., Suite 4200
Long Beach, CA 90802-4213
(310) 980-4000
<http://swr.ucsd.edu/swr.html>

National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910
<http://kingfish.ssp.nmfs.gov>
see also <http://www.noaa.gov> (NOAA)

F8. U.S. Coast Guard (USCG)

Priority problems addressed (✓) *						Key programs/activities/etc.
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	(relating to the priority problems)
	✓		✓			• Waste Management (R)
			✓			• Oil Spill Prevention & Response (RM)
	✓		✓			• Sea Partners Campaign (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

USCG is the Nation's primary maritime law enforcement and maritime/port safety regulatory agency. Program authorities related to estuary protection include the Oil Pollution Act of 1990, Ports and Waters Safety Act, Clean Water Act, and Marine Protection, Research, and Sanctuaries Act. Funding sources for the USCG include annual congressional appropriations and, for specific pollution incidents, additional funding from the Oil Spill Liability Trust Fund and the Superfund. In Morro Bay, USCG maintains a station, two cutters (the Point Heyer and Point Winslow), and a Marine Environment Response unit for oil spills or hazardous waste conditions in the water. Local responsibilities include search and rescue, recreational boating safety, and maritime law enforcement. Programs related to protection of the Morro Bay estuary include those listed below.

II. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)**A. Regulatory Activities/Programs**

- ♦ **Waste Management** — To protect water quality and combat marine debris, USCG (1) regulates and enforces discharges of sewage and waste from vessels; (2) enforces regulations requiring marine sanitation devices to meet federal performance standards; (3) enforces rules requiring vessels over 40 feet to have a waste management plan, and vessels over 26 feet to display placards outlining plastics/solid waste dumping restrictions; and (4) issues certificates to ports that are equipped with proper facilities to dispose of solid waste from ships.

B. Resource Management Activities/Programs

- ♦ **Oil Spill Prevention & Response** — USCG works to prevent and to respond to oil and hazardous material spills on vessels and waterfront facilities. When such spills occur in the coastal zone, the USCG and DFG-OSPR, as the federal and State on-scene coordinators respectively, respond to coordinate cleanup efforts. USCG also reviews spill prevention plans and participates in research efforts aimed at advancing oil-spill-response techniques. USCG also contributes to the Coastal Commissions Area Contingency Planning Process for Oil Spill Response.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

- ♦ **Sea Partners Campaign** — This environmental education and outreach program focuses on communities to develop awareness of maritime pollution issues and to improve compliance with marine environmental protection laws and regulations. Messages include: (1) effects of oil, hazardous chemicals, waste and debris on the marine environment, (2) ways to take action to protect the marine environment, and (3) how marine environmental protection laws and regulations apply to various marine users (see <http://www.uscg.mil.hq/g-m/nmc/seapart.htm>).

IV. ADMINISTRATION

For further information, contact:

U.S. Coast Guard

1279 Embarcadero St.

Morro Bay, CA 93442-1319

(805) 772-2167

(510) 537-3073, 24-hour phone to report spills

USCG, 11th District Marine Safety Office

Coast Guard Island, Bldg. 14

Alameda, CA 94501-5100

(510) 437-3087

<http://www.wenet.net/~uscg/index.html>

F9. U.S. Forest Service (USFS), USDA

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓		✓	• National Forest System (RM)
✓					✓	• Fire Operations & Fire Management Preparedness (RM)
					✓	• Forest and Rangeland Research (RM)
✓	✓	✓		✓	✓	• Forest Ecosystem Healthy Monitoring (RM)
					✓	• Forest Ecosystem Restoration and Maintenance (RM)
					✓	• Land Acquisition (RM)
✓				✓	✓	• Reconstruction and Construction (F)
✓	✓	✓		✓	✓	• Stewardship Incentives Program (NR)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

USFS seeks to help people share and enjoy the forest while conserving the environment for future generations. The federal jurisdiction includes all public lands in national forests and grasslands. Program authorities related to estuary protection include Forest and Rangeland Renewable Resources Planning Act, National Forest Management Act of 1976, and National Environmental Policy Act (NEPA). USFS programs include those listed below.

The **Santa Lucia Ranger District** manages the Los Padres National Forest, including a small area that extend into the Morro Bay watershed. Its mission includes: (1) provide leadership in forest resource management; (2) manage vegetation for water production, wildlife habitat, and public use and enjoyment; (3) provide an environment that enhances the attraction, training, development, and retention of a cohesive, high performing work force; (4) manage fire as a major element of the ecosystem; (5) protect environmental quality, public health and safety, private property, and users of the Forest; (6) manage and protect surface resources while accommodating mineral extraction and special land uses; and (7) provide recreation opportunities appropriate to Los Padres National Forest which are limited or not available elsewhere.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- Sediment = rapid sedimentation
- Bacteria = increased bacterial concentrations
- Nutrients = increased nutrient concentrations
- Heavy Metals + = increased heavy metal/toxins concentrations
- Reduced Flow = freshwater flow reductions
- Habitat Loss = adverse impacts to wildlife habitat

III. FUNCTIONS (regulatory, resource management, finance, and non-regulatory)

A. Regulatory Activities/Programs

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

- ♦ **National Forest System** — USFS implements activities for the protection, management and use of the national forests and grasslands in the following areas: recreation use; wildlife and fish habitat protection, restoration and improvement; rangeland management (administering grazing allotments and permits); forestland management (implementation of forest plans which provide for contributions to the nation's demand for timber and maintenance and restoration of healthy ecosystems through reforestation and timber stand improvement); soil, water and air (protection of municipal water supplies, reclamation of abandoned mines).

The Los Padres National Forest Plan provides management guidance for the forest lands in the Morro Bay watershed (Management Area 33). The management emphasis for this area is visual resources: maintaining the rugged natural appearing character of the landscape. The Forest Plan also specifies management guidelines and standards for cultural resources, general forest recreation, fish and wildlife, range resource, watershed, transportation and minerals.

The following programs may be implemented in the small area of forestlands located in the Morro Bay Watershed:

- ♦ **Fire Operations & Fire Management Preparedness** — USFS implements numerous activities relating to wildfire prevention (including reduction of hazardous fuels activities), wildfire suppression, and emergency rehabilitation and restoration.
- ♦ **Forest and Rangeland Research** — USFS conducts research in four broad areas: vegetation management and protection; wildlife, fish, watershed and atmospheric sciences; resource valuation and use; and forest resources inventory and monitoring.
- ♦ **Forest Ecosystem Health Monitoring** — USFS conducts monitoring to build accessible data that allows scientists and managers to detect and respond to early, subtle, yet significant ecosystem change. The program is a partnership with the states to provide monitoring and reporting on state and private lands to complement information on federal lands.
- ♦ **Forest Ecosystem Restoration and Maintenance** — USFS implements activities which meet the objectives of wildlife habitat and watershed improvement, reduction in stand density, and ecosystem restoration. Examples of activities which could meet these objectives include thinning, prescribed burning, road and trail obliteration, and timber sales.
- ♦ **Land Acquisition** — USFS activities include acquiring lands, waters and related interests for high-priority recreation and conservation opportunities within the National Forest System.

- ◆ **Reconstruction and Construction** — USFS conducts restoration, construction, and improvement of buildings, utility systems, dams, recreation facilities, roads, bridges, trails, other physical facilities, and acquisition of administrative sites.

C. Finance Mechanisms

- ◆ **Stewardship Incentives Program** — USFS provides cost-sharing assistance to help assure sound stewardship and use of the vast state and private forest lands, utilizing non-regulatory approaches. For example, the Stewardship Incentive Program provides financial assistance to encourage non-industrial private forest landowners to keep their lands and natural resources productive and healthy. Qualifying land includes rural lands with existing tree cover or land suitable for growing trees and which is owned by a private individual, group, association, corporation, Indian tribe, or other legal private entity. Eligible landowners must have an approved Forest Stewardship Plan and own 1,000 or fewer acres of qualifying land. Authorizations may be obtained for exceptions of up to 5,000 acres.

D. Other Non-Regulatory Programs

- ◆ **Stewardship Incentives Program** — USFS provides technical assistance to help assure sound stewardship and use of the vast state and private forest lands, utilizing non-regulatory approaches. For example, the Stewardship Incentive Program provides technical assistance to encourage non-industrial private forest landowners to keep their lands and natural resources productive and healthy. Qualifying land includes rural lands with existing tree cover or land suitable for growing trees and which is owned by a private individual, group, association, corporation, Indian tribe, or other legal private entity. Eligible landowners must have an approved Forest Stewardship Plan and own 1,000 or fewer acres of qualifying land. Authorizations may be obtained for exceptions of up to 5,000 acres.

IV. ADMINISTRATION

For further information, contact:

Santa Lucia Ranger District

Los Padres National Forest

1616 Carlotti Drive

Santa Maria, CA 93454

(805) 925-9538

<http://www.r5.pswfs.gov/lospadres/html/slrd.htm>

USFS, Pacific Southwest Region

630 Sansome Street

San Francisco, CA 94111

(415) 705-2874

<http://www.r5.fs.fed.us>

<http://www.fs.fed.us> (National HQ)

F10. U.S. Geological Survey (USGS), Dept. of the Interior

Priority problems addressed (✓) *						Key programs/activities/etc. (relating to the priority problems)
Sediment	Bacteria	Nutrients	Heavy Metals +	Reduced Flow	Habitat Loss	
✓	✓	✓	✓		✓	• Coastal and Marine Geology Program (RM)
✓	✓	✓	✓	✓		• Water Quality/Quantity (RM)
						• Mapping (RM)
					✓	• National Biological Service (RM0)
						• VegSpec (RM)

(R=REGULATORY, RM=RESOURCE MANAGEMENT, FM=FINANCE MECHANISMS, NR=OTHER NON-REGULATORY)

I. MISSION AND AUTHORITY / II. JURISDICTION

USGS provides reliable, impartial information to describe and understand the Earth. This information is used to: (1) minimize loss of life and property from natural disasters; (2) manage water, biological, energy and mineral resources; (3) enhance and protect the quality of life; and (4) contribute to wise economic and physical development. USGS's primary program authority is the Water Resources Research Act of 1984.

III. FUNCTIONS (REGULATORY, RESOURCE MANAGEMENT, FINANCE, AND NON-REGULATORY)**A. Regulatory Activities/Programs**

This agency does not implement any regulatory activities or programs.

B. Resource Management Activities/Programs

Resource management programs related to estuarine protection include:

- ♦ **Coastal and Marine Geology Program** — Research and mapping activities of this program are conducted under four themes: (1) environmental quality/preservation (includes research on polluted sediments, waste disposal, and degradation of wetlands/sensitive ecosystems); (2) natural hazards/public safety; (3) natural resources; and (4) information/technology.
- ♦ **Water Quality/Quantity** — USGS activities include: (1) provide technical advice regarding water and associated land-use problems, (2) serve as a repository of outreach information on research, planning, and community service, and (3) serve public and private interests in the conservation, development, and use of water resources, including conducting investigations dealing with quantity and quality of ground and surface water.

* Priority problems identified as being present in the Morro Bay watershed include those listed below:

- **Sediment** = rapid sedimentation
- **Bacteria** = increased bacterial concentrations
- **Nutrients** = increased nutrient concentrations
- **Heavy Metals +** = increased heavy metal/toxins concentrations
- **Reduced Flow** = freshwater flow reductions
- **Habitat Loss** = adverse impacts to wildlife habitat

In 1987, USGS completed a study of the Los Osos Valley groundwater basin. In cooperation with federal, State and local water agencies, USGS also operates or reviews data for about 1,000 surface-water stations throughout the State. Data collected are used by agencies, among other purposes, to design measurable, effective, and economically sound programs and practices for flood protection. USGS also has programs in California that assess impacts associated with abandoned mines.

- ♦ **Mapping** — USGS's **National Mapping Program** has focused on mapping areas of California where data are not yet complete. The USGS and USFS are currently working to produce digital orthophotoquads of national forests in California. In 1997, USGS completed a light detection and ranging survey of shoreline and coastal bluff position, and mapped an area from Morro Bay to San Diego using the NASA Airborne Topographic Mapper system.
- ♦ **National Biological Service (NBS)** — In 1996, NBS joined USGS as the Biological Resources Division. USGS gathers information on threatened/endangered species throughout California.
- ♦ **VegSpec** — This is a new web-based program developed cooperatively by USGS, NRCS, and the US Construction/Engineering Research Laboratories. It will help users make sound decisions about land uses and revegetation by presenting information on what plants grow on specific sites.

C. Finance Mechanisms

This agency does not implement any finance mechanism activities or programs.

D. Other Non-Regulatory Programs

This agency does not implement any other non-regulatory activities or programs.

V. ADMINISTRATION

For further information, contact:

USGS, Western Region
345 Middlefield Rd.
Menlo Park, CA 94025
(650) 853-8300
<http://www.wr.usgs.gov>

**USGS, Water Resources Division
CA District Office**
Placer Hall, Suite 2012
6000 J Street
Sacramento, CA 95819-6129
(530) 278-3000

USGS, National Center
12201 Sunrise Valley Drive
Reston, VA 20192
(703) 648-4000
<http://www.usgs.gov>

3.0 REFERENCES AND PERSONS CONSULTED

3.1 REFERENCES

Management Measure Review Document, California Coastal Commission and State Water Resources Control Board, 1998

National Estuary Program Guidance, Base Programs Analysis, US EPA, 1993

National Estuary Program, The Nomination of Morro Bay, California Environmental Protection Agency, State Water Resources Control Board

3.2 PERSONS CONSULTED

Morro Bay National Estuary Program Staff

1. Melissa Mooney, Director
2. Katie Kropp, Technical Director

Local Agencies

- L1. City of Morro Bay — Planning and Building Department
Shauna Naumann: (805) 772-6200
- L2. City of Morro Bay — Public Works Department
Bill Boucher: (805) 772-6261
- L3. City of Morro Bay — Harbor Department
Rick Algert: (805) 772-6254
- L4. San Luis Obispo County — Planning and Building Department
Mike Wulkan: (805) 781-5603
- L5. San Luis Obispo County — Public Health Department, Environmental Health Division
Susan Ayers: (805) 781-5544
- L6. San Luis Obispo County — Engineering Department
Greg Martin: (805) 781-5252
- L7. San Luis Obispo County — Agriculture Department
John Warrick: (805) 781-5910
- L8. San Luis Obispo County — General Services, Parks
Sandra Zaida: (805) 781-5200
- L9. Coastal San Luis Resource Conservation District (RCD)
Scott Robins: (805) 772-4391
- L10. City of Morro Bay — Recreation and Parks Department
Andrea Lueker: (805) 772-6282
- L11. San Luis Obispo County — Council of Governments (SLOCOG)
Richard Murphy: (805) 781-5714

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State Agencies

- S1. California Coastal Commission (CCC), Resources Agency
Cy Oggins: (415) 904-5200
- S3. Department of Fish and Game, Office of Oil Spill Prevention and Response (OSPR), Resources Agency
Melissa Boggs: (805) 772-1756
- S5. Department of Pesticide Regulation (DPR), Cal/EPA
Madeline Brattesani: (916) 324-4100
- S6. Regional Water Quality Control Board (RWQCB), Cal/EPA
Lisa Horowitz-McCann: (805) 549-3132
- S7. State Coastal Conservancy (SCC), Resources Agency
Carol Arnold: (510) 286-1015
- S8. State Lands Commission (SLC)
John Lien: (916) 574-1900
- S9. State Water Resources Control Board (SWRCB), Cal/EPA
Ken Coulter: (916) 657-2390
- S10. California Conservation Corps, Resources Agency
Bruce Bonifas: (805) 549-3561
- S11. California Integrated Waste Management Board (CIWMB), Cal/EPA
John Frith: (916) 255-2200
- S12. California National Guard—Camp San Luis Obispo, Military Department
Brian Duke: (805) 238-8418
- S13. Department of Boating and Waterways (DBW), Resources Agency
John Middleton: (916) 415-2616
- S14. Department of Conservation (DOC), Resources Agency
Mike Stetner: (916) 324-0850
- S19. Department of Water Resources (DWR), Resources Agency
Charles White: (916) 653-5791
- S20. Office of Environmental Health Hazard Assessment (OEHHA), Cal/EPA
William F. Soo Hoo: (916) 324-7572
- S21. University of California, Cooperative Extension Service (U.C. Extension)
Bill Weitkamp: (805) 781-5940

Federal Agencies

- F1. U.S. Environmental Protection Agency (EPA)
Cheryl McGovern: (415) 744-2013
- F2. U.S. Army Corps of Engineers (ACOE) --
Planning Division, Coastal Resources Branch:
Stephen Fine: (213) 452-3821
Hoa Ly: (213) 452-3824
Regulatory Division, Ventura Field Office:
Tiffany Welch: (805) 641-2935
- F3. U.S. Fish and Wildlife Service (USFWS), U.S. Dept. of the Interior
Kate Symonds: (805) 644-1766
- F4. Natural Resources Conservation Service (NRCS), U.S. Dept. of Agriculture (USDA)
Scott Robins: (805) 772-4391
- F5. Farm Service Agency (FSA), USDA
Cathy Borg: (805) 434-0398
- F6. National Oceanic and Atmospheric Administration (NOAA), U.S. Dept. of Commerce
Deborah McCardle: (805) 882-1889
- F7. NOAA, National Marine Fisheries Service (NMFS), U.S. Dept. of Commerce
Bob Hoffman: (310) 980-4000
- F8. U.S. Coast Guard (USCG)
Lt. Dan Bennet: (805) 772-2167
- F9. U.S. Forest Service (USFS), USDA
Melody Fountain: (805) 925-9538

3.3 SPECIAL PRIVATE PARTNERS

The Morro Bay NEP plan development and implementation cannot succeed without the participation of "special partners," or those private stakeholders who individually manage lands, facilities or other resources that influence the quality of the watershed habitats and environments. Many of these partners are represented on the Morro Bay committees. They are listed below, along with their primary mission.

Audubon Society (Non-profit: Education; land acquisition)
Bay Foundation of Morro Bay (Non-profit: Education and Research)
California Native Plant Society (Non-profit: Education)
California Polytechnic State University, San Luis Obispo (Education)
Central Coast Natural History Association (Non-profit: Education and Research)
Duke Energy (Private for profit: formerly PG&E)
Environmental Center of San Luis Obispo (ECOSLO) (Non-profit: Education)
Friends of the Estuary (Non-profit: Education)
Land Conservancy of SLO (Non-profit: Land trust)
Morro Estuary Greenbelt Alliance (MEGA) (Non-profit: Land acquisition)
Small Wilderness Area Preservation (SWAP) (Non-profit: Land management and protection)
Trust for Public Land (Non-profit: Land acquisition)

**BASE PROGRAMS ANALYSIS
FOR THE
MORRO BAY NATIONAL ESTUARY PROGRAM
COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN
VOLUME II: EFFECTIVENESS ANALYSIS**

Prepared by

**Lisa Horowitz McCann
Central Coast Regional Water Quality Control Board**

**Cy R. Oggins
California Coastal Commission**

and

**Audrey Blumeneau
California Coastal Commission**

for the

Morro Bay National Estuary Program

**Melissa Mooney
Program Director**

**Final Draft
January 1999**

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**Final Draft
January 1999**

Acknowledgments

Preparation of this document originated soon after the Morro Bay Estuary was accepted into the US Environmental Protection Agency's National Estuary Program (NEP). Staff of the Central Coast Regional Water Quality Control Board (Regional Board) was assigned to prepare the Base Programs Analysis for the Morro Bay NEP. At that time, the former Program Director, Dave Paradies, and the former Scientific Director, Karen Worcester (an Environmental Specialist with the Regional Board), provided direction and support. As the NEP developed, these two directors saw an opportunity to partner with the California Coastal Commission, as that agency's staff was actively involved with encouraging implementation of nonpoint source pollution management measures in coastal areas (through their participation in the State's process of upgrading the California Nonpoint Source Management Program). Tami Grove, a Deputy Director of the California Coastal Commission, shared this view. She and Vern Jones, Supervising Environmental Specialist with the Regional Board, approved an interagency agreement between the State Water Resources Control Board and the California Coastal Commission that brought the coauthors of the report together. Along the way, Katie Kropp, Environmental Specialist with the Regional Board and Technical Director for the National Estuary Program, provided information about the roles and interests of the various agencies and represented the views of the members of the general public participating in the Program. We also acknowledge the hard work and flexibility of the student assistants/interns and administrative staff who assisted us--Jonathan Civita, Jon Boland, and Katy Hanson working for the Regional Board, and Michael Rasnick, working for the California Coastal Commission. Finally, this project could not have been completed without the input and feedback we received from representatives of the local, state and federal agencies included in the Institutional Inventory.

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1.0 EXECUTIVE SUMMARY

This document contains Volume II: Effectiveness Analysis of the Base Programs Analysis for the Morro Bay National Estuary Program's Comprehensive Conservation and Management Plan (CCMP). This analysis was conducted pursuant to Section 320 of the Clean Water Act which established the National Estuary Program and authorizes development of the CCMP. Volume II includes an assessment of the effectiveness of the programs that make up the framework available for managing and protecting the estuary's resources. Additionally, the analysis includes recommendations for improving the mechanisms for addressing priority problems and their causes.

SECTION 2.0 of this document describes the purpose of the Base Programs Analysis, the purposes and goals of the Morro Bay NEP, priority problems and the setting.

SECTION 3.0 describes the methods of analysis of the institutional framework. This was accomplished in three steps. The first step was an evaluation of the gamut of programs and categories of programs available to address each priority problem. The second step was to consider direct information about the specific programs of the primary agencies in the existing institutional framework. The third step was to characterize the effectiveness of the specific programs of the agencies in the existing institutional framework by requesting input from the agencies on the effectiveness of their programs.

The results of the analysis are described in SECTION 4.0 of this document. Tables 4.1B through 4.6E contain detailed information on the effectiveness of each program or group of programs analyzed. The results of the analysis indicate the following:

- significantly more regulatory and resource management programs are being implemented in the existing institutional framework than finance mechanisms or other non-regulatory programs;
- similar successful aspects and problems occur regardless of the type of program or the priority problem addressed by a program;
- the most common problem indicated for all types of programs was insufficient resources; and
- the most common successful aspects of programs reported include complementary programs and statutory authority.

The final section of this document (SECTION 5.0) presents specific actions to improve effectiveness of the institutional framework based on the results of the effectiveness analysis. A total of 49 actions are recommended and described in Table 5.1. In order to improve the institutional framework, the recommended actions focus on:

- capitalizing on existing state and federal finance mechanisms to provide more financial resources to local agencies and landowners;
- improving interagency coordination;
- increasing public education and outreach;
- implementing more comprehensive approaches for developing strategies to address priority problems;
- providing incentives for implementation of nonpoint source pollution control; and
- expanding existing monitoring activities.

A complete list and descriptions of the recommended actions are contained in Table 5.1.

2.0 INTRODUCTION

2.1 VOLUME II: EFFECTIVENESS ANALYSIS

This document contains Volume II of the Base Programs Analysis for the Morro Bay National Estuary Program's Comprehensive Conservation and Management Plan. Volume II of the Base Programs Analysis includes the Effectiveness Analysis for the institutional framework. The Effectiveness Analysis is the heart of the Base Programs Analysis. It includes an assessment of the effectiveness of the programs that make up the framework available for managing and protecting the estuary's resources. Additionally, the analysis includes recommendations for improving the mechanisms for addressing priority problems and their causes.

Volume I of the Base Programs Analysis includes the Institutional Inventory of Programs analyzed in Volume II.

2.2 THE PURPOSE OF THE BASE PROGRAMS ANALYSIS

The purpose of the Base Programs Analysis is to assist the Morro Bay National Estuary Program (NEP) in developing effective mechanisms for addressing priority problems and their causes.

Section 320 of the Clean Water Act established the National Estuary Program to identify nationally significant estuaries threatened by pollution, development, or overuse and to promote the preparation of comprehensive management plans to ensure their ecological integrity. Section 320 states that one purpose of National Estuary Programs is development of plans to coordinate implementation of the CCMP by local, state and federal agencies. The Base Programs Analysis is a process to facilitate this purpose.

The Base Programs Analysis offers decision makers a clearer picture of the existing institutional "infrastructure" or framework of the estuary and watershed. It serves as a management characterization of the estuary and watershed through a process of:

- describing the framework of institutions and programs within which a CCMP will be implemented;
- assessing the effectiveness of that framework in managing and protecting the estuary's resources; and
- recommending, in conjunction with the technical characterization, issues to be addressed in the CCMP based on potential management enhancements or alternatives.

This Base Programs Analysis was developed by following the guidance in the document National Estuary Program Guidance, Base Programs Analysis (US EPA, 1993). Additionally, it was developed by considering the approach currently underway by State agencies to identify actions consistent with the Coastal Zone Act Reauthorization Amendments. Integration and coordination of local needs with this state process should result in more technical and financial support to implement the actions developed for the CCMP. The approach included the following:

- identification of issues and actions to be addressed in the CCMP based on the results of the effectiveness analysis;
- evaluation of applicable management measures from those included in the Management Measure Review Document (California Coastal Commission and State Water Resources Control Board, 1998) developed under authority of CZARA; and
- description of how recommended actions for the CCMP implement the applicable management measures.

2.3 THE PURPOSES AND GOALS OF THE MORRO BAY NEP

2.3.1 The Purposes of The Morro Bay NEP

- 1) The Morro Bay NEP includes an emphasis on characterization and trend detection as set forth in several of its seven purposes and objectives:
- 2) Assess trends in the estuary's water quality, natural resources, and uses of the estuary;
- 3) Collect, characterize and assess data on toxics, nutrients, and natural resources within the estuarine zone to identify the causes of environmental problems;
- 4) Assess pollutant loadings in the Estuary and relate them to observed and potential changes in uses of the estuarine zone, water quality and natural resources;
- 5) Develop a comprehensive conservation and management plan that recommends priority corrective actions and implementation schedule addressing point and nonpoint sources of pollution to restore and maintain the chemical, physical, and biological integrity of the estuary, including restoration and maintenance of water quality, a balanced indigenous population of shellfish, fish, and wildlife, and recreational activities in the estuary, and assure that the designated uses of the estuary are protected.
- 6) Develop plans for the coordinated implementation of the plan by the states as well as federal and local agencies participating in the conference;
- 7) Monitor the effectiveness of actions taken pursuant to the Plan;
- 8) Ensure that federal assistance and development projects (per Executive Order 12372, September 17, 1983) are consistent with the Management Plan, meet the requirements of CWA Section 320(b)(7), and further the goals of the Plan.

2.3.2 The Goals of The Morro Bay NEP

In addition, the Morro Bay NEP has adopted its own goals. The goals outline the resources of the bay and watershed that the program strives to protect and enhance. In order to measure progress towards meeting these goals, appropriate monitoring programs must be developed and implemented.

- 1) Slow the process of bay sedimentation through implementation of management measures which address erosion and sediment transport.
- 2) Reestablish healthy steelhead trout habitat in Chorro and Los Osos creeks through measures including reduction of sediment loading in gravels, stabilization of riparian corridors, removal or mitigation of migration barriers, improvement of water quality, and restoration and maintenance of adequate fresh water flow.
- 3) Ensure that bay water remains of sufficient quality to support a viable commercial shellfish mariculture industry, safe recreational uses, healthy eelgrass beds, and thriving fish and shellfish populations.
- 4) Ensure the integrity of the broad diversity of natural habitats and associated native wildlife species in the bay and watershed.

- 5) Maintain watershed functional integrity through appropriate riparian corridor management, impervious surface management, fire management, and grazing management.
- 6) Protect social, economic, and environmental benefits provided by the bay and watershed through comprehensive resource management planning.
- 7) Promote public awareness and involvement in estuarine management issues through outreach, educational programs, and the use of volunteers in ongoing bay monitoring and other programs.

2.4 PRIORITY PROBLEMS

The following issues have been identified as priority problems in the bay and watershed:

- Sedimentation
- Increased Bacterial Concentrations
- Increased Nutrients
- Heavy Metals and Other Toxins
- Reduced Fresh Water flows
- Habitat Loss

Sedimentation - Erosion in the watershed and sedimentation in the estuary are the greatest threats to Morro Bay. If sediment deposition in the estuary continues at the present rate, the health of the estuary is in severe jeopardy. Under normal conditions, an estuary and lagoon such as Morro Bay, could have a life measured in thousands of years (USDA/SCS, 1989a). However, if there is no abatement of sediment deliveries to the estuary, its life expectancy is likely limited to approximately 300 years (Haltiner, 1988), with parts of the southern section of the bay disappearing much sooner. The economic and environmental impact of this loss would be severe.

Increased Bacterial Concentrations - Elevated levels of bacteria present a potential health threat to those who utilize the bay for recreational purposes and economic threats to those who depend upon the resources of the bay for their livelihood. Elevated levels of bacteria are an indication that other pollutants, such as pathogens and viruses, may be present.

Bacteria levels in Morro Bay have increased noticeably since 1993. The increased levels have already impacted local shellfish growing operations. Rising levels of bacteria could adversely impact recreational uses of the bay. These pollutants can have adverse effects on humans and many marine species who utilize the bay.

Increased Nutrients - Sediment and fertilizer runoff from agricultural land contains significant amounts of nitrogen and phosphorus as well as organic matter. Nutrients are also added by animal waste runoff into waterways. Other nutrient sources include the wastewater discharge at the California Men's Colony treatment plant and septic systems in Los Osos and Baywood Park. These increased nutrient additions to the creeks and estuary can result in increased algal growth and reduced levels of dissolved oxygen in the water. The reduced oxygen contents can adversely affect aquatic organisms, particularly fish. This problem may increase as grazing lands are converted to higher intensity agriculture and in sections of the watershed, to horse operations and residential parcels.

Heavy Metals and Other Toxins - Inactive mines in the upper watershed have resulted in high levels of heavy metals, particularly nickel and chromium, being found associated with sediments eroding from these areas. Mine tailings and dredging spoils have been used for years in the upper watershed as fill and as road surface material. Dust from this soil may present a risk for those frequently exposed to it, as nickel is a lung carcinogen. Neither nickel nor chromium have been detected in significant quantities in surface waters; they are found primarily in association with soil particles. Their presence in sediment could impact the health of benthic fauna.

The Los Osos Landfill in the Los Osos Creek watershed may be another source of pollutants. Until early 1988, the landfill was the waste dump for residential wastes, toxic materials including motor oil, pesticide containers, lubricants, and other domestic pollutants. Pollutant discharges from the landfill have not been found in surface water. However, recent studies (Engineering Science, 1987) show low level hydrocarbon contamination in two wells adjacent to the landfill. Erosion of contaminated sediment from the landfill could be a concern. For example, during major storms in 1983, portions of the buried trash were exposed and eroded by

a tributary of Los Osos Creek. Monitoring of water continues in the estuary through the Bay Protection and Toxic Cleanup Program (State Water Resources Control Board, 1988).

Other potential sources of heavy metals and other toxic pollutants include urban runoff discharges from the streets of the city of Morro Bay and the community of Los Osos, live-aboard boaters, boat painting and cleaning, and fuel docks.

Limited mussel data is available as an indicator of the bay's quality with respect to metals and organics. These data do, however, indicate that a potential for problems exists in Morro Bay. Efforts are needed to prevent one-time occurrences of toxic concentrations from becoming chronic problems.

Reduced Fresh Water Flows - The Morro Bay watershed is the source of drinking water for the communities of Los Osos (population about 16,000), the California Men's Colony (population about 6-8,000), and the city of Morro Bay (population about 10,000). At present, groundwater recharge of aquifers comes from the same sources that bring fresh water to the estuary, and increases in ground and surface water diversion directly affect the flow of creeks, the number of flow days, and wildlife and botanic values associated with a fresh water supply. Fresh water flows from the two main creeks (a third was diverted from the bay in the 1940's) entering the bay have been reduced, and at times completely interrupted, through a combination of agricultural and urban uses.

Habitat Loss - Impacts to wetlands around the bay are closely linked to sedimentation. Seasonal runoff of fresh water produces measurable turbidity in mid-estuary zones (eelgrass), the duration of which is significantly longer in a simple flow system like a mature river (Phillips, 1984). Increased turbidity leads to decreased eelgrass growth, and reduces the depth range at which it will occur in the estuary. Desiccation through increased sediment accumulation is a major factor limiting the upper intertidal distribution of eelgrass. There appears to be no species succession in the eelgrass stage of the ecosystem. Eelgrass is the initial colonizer as well as the climax stage of development (Phillips, 1984).

The salt marsh and mudflats, while increasing in area at the estuary edge, does so at the expense of the eelgrass beds and deep water zones. With increased sedimentation, salt marsh habitat is being replaced in the upper delta by lower-salinity tolerant species. These include the introduced and extremely invasive Hoary Cress (*Cardaria draba*). Habitat quality at this expanding interface has been severely degraded (Cicero, 1991). Also invasive in riparian woodlands adjacent to the delta is German Ivy, again probably exacerbated by disturbed soils resulting from sedimentation.

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2.5 SETTING

The Morro Bay estuary encompasses about 2,300 acres of mudflats, eelgrass beds, tidal wetlands, and open water. The project area encompasses the entire 48,000-acre Morro Bay watershed and estuary. The watershed is comprised of the Chorro Creek drainage (27,000 acres) and the Los Osos Creek drainage (17,000 acres).

Morro Bay supports the most significant wetland system on California's south-central coast. It also supports large tourism and commercial fishing industries, oyster farming and other business and recreational interests. The estuary is an essential link in the Pacific Flyway, providing one of the state's largest waterfowl habitats south of San Francisco. It supports a rich eelgrass resource and provides habitat for a number of endangered and/or threatened species, including, but not limited to: steelhead trout, California red-legged frog, tidewater goby, Morro Bay kangaroo rat, southern sea otter, and western snowy plover.

Major land uses in the watershed include rangeland (grassland), cropland, state and city parks and beaches, and urban development.

3.0 METHODS OF ANALYSIS

The analysis of the institutional framework characterized by the Institutional Inventory was accomplished in three steps.

The first step (Step 1) was an evaluation of the gamut of programs and categories of programs available to address each priority problem. This was accomplished by creating and reviewing a matrix of programs. This matrix is contained in Appendix 7.1, Institutional Framework Addressing Priority Problems. Then, BPA staff generally assessed which types of programs are lacking in the institutional framework and which are most likely to improve the institutional framework.

The second step (Step 2) was to consider direct information about the specific programs of the primary agencies in the existing institutional framework. Direct information was considered by reviewing the activities, plans, policies and regulations of specific programs to verify ability to address a priority problem and to identify weaknesses or gaps in ability to address a priority problem. Based on this review, BPA staff evaluated what aspects of existing programs are lacking and what aspects are working.

The third step (Step 3) was to characterize the effectiveness of the specific programs of the agencies in the existing institutional framework. This was accomplished by requesting input from the agencies on the effectiveness of their programs. BPA staff developed a questionnaire and distributed it to all 43 of the agencies (22 primary agencies and 21 secondary agencies). The questionnaire and responses are contained in Appendix 7.2 to this report. The questionnaire included several criteria to indicate effectiveness of programs as shown in Table 1. The questionnaire also included places to indicate other comments and suggest ways to improve the institutional framework.

TABLE 1. CRITERIA TO INDICATE EFFECTIVENESS OF PROGRAMS

Successful Aspects	Problems
<ul style="list-style-type: none"> • Clear goals, responsibilities or procedures • Complementary programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Sufficient Resources • Support through statutory authority • Support of the public 	<ul style="list-style-type: none"> • Unclear goals, responsibilities, or procedures • Completing or conflicting programs • Difficulties in coordinating/cooperating with other organizations • Duplication of effort • Insufficient resources • Lack of statutory authority • Lack of public support

BPA staff received responses from 20 of these agencies as requested. Only ten of these responses were from primary agencies. BPA staff then contacted the representatives of the other 12 primary agencies by phone to solicit responses to the questions or general characterizations of effectiveness. BPA staff was also able to ascertain information on effectiveness of programs through attendance at NEP workgroup meetings and the Watershed Committee meetings.

The effectiveness analysis focused predominantly on the primary agencies. In some cases, a notable program being implemented by a secondary agency was analyzed. **SECTION 4.0** contains six subsections that correspond to the six priority problems. Each subsection includes five tables. Each table identifies the implementing agency, the "successful aspects" and "problems" associate with each program (or group of programs), and other comments and suggestions. Lists and descriptions of programs implemented by each agency are contained in Volume I – Institutional Inventory of Programs. The first table in each subsection presents effectiveness information for the local agency programs. The second table presents effectiveness

information for state and federal regulatory programs. The third table presents effectiveness information for state and federal resource management programs. The fourth table presents effectiveness information for state and federal finance mechanisms. The fifth table presents effectiveness information for other state and federal non-regulatory programs.

The local agency programs were not grouped by institutional framework category because local agency functions overlapped these categories much more than state and federal agency functions. The successful aspects and problems reported for the variety of functions implemented by the local agency departments were similar. Consequently, local agency functions were analyzed as a group, rather than separated into institutional framework categories, to avoid repetition of the effectiveness analysis criteria.

The results of the analysis are presented in **SECTION 4.0**.

4.0 ANALYSIS OF THE INSTITUTIONAL FRAMEWORK

In general, there are several regulatory programs, resource management programs, finance mechanisms, and other non-regulatory programs currently being implemented. These institutional framework categories were defined in Volume I: Institutional Inventory as follows:

Regulatory Programs

This includes activities that are required by statutes and codes and those that are legally authorized. Typical activities are development and review for consistency with legal standards and requirements, issuance of orders or permits, ordinances, and enforcement. Activities implemented through regulatory mechanisms are often similar to activities implemented in other categories (e.g. erosion control structures). The distinction is that these activities are required by and enforceable with a legal authority. Examples that were considered include:

- development and enforcement of ordinances
- water quality permitting, discharge prohibition and enforcement
- standard setting/criteria development
- wetlands protection/dredging/dumping restrictions
- coastal zone management plans

Resource Management Programs

This includes activities that are implemented for consistency with goals, policies and guidance. Typical activities are monitoring and assessment of resources, and development and implementation of resource enhancement and protection plans. Activities implemented through resource management programs may be similar to activities implemented in other categories (e.g. land acquisition). Examples that were considered include:

- agricultural area preservation
- fisheries habitat and wildlife protection
- nonpoint source pollution control

Finance Mechanisms

These include tools available to agencies to provide funding or financial resources to other agencies and/or landowners to pay for actions to manage and protect the estuary and watershed. Typical activities are those related to grants, low interest loans, cost-share programs, tax-incentives and land acquisition. Activities implemented through finance mechanisms may be similar to activities implemented in other categories (e.g. a grant to pay for erosion control).

Other Non-Regulatory Programs

Voluntary Initiatives/Incentive Programs

These include efforts to gain voluntary involvement by agencies and/or landowners. Typical activities are encouragement of interagency cooperation, raising public awareness, efforts to change individual behavior, and establishing partnerships and commitments to implement actions. Activities implemented through voluntary initiatives/incentive programs may be similar to activities implemented in other categories (e.g., volunteer monitoring).

Public Education and Technical Assistance

These include outreach and education efforts both to provide public awareness and specific assistance on technical issues (such as implementation of particular pollution control techniques). Typical activities are public presentations by agency BPA staff at workshops and meetings, training courses for agency BPA staff and landowners, creation and distribution of written materials, one-on-one site visits and interactions with landowners to resolve a specific problem. Activities implemented through public education and technical assistance programs may be similar to activities implemented in other categories (e.g., training on installation of erosion control structures).

Planning Efforts

These include planning activities related to growth management and land use. Typical activities are General Plan and other plan updates and adoption, and project review and approval. Activities implemented through planning efforts may be similar to activities implemented in other categories (e.g. require open space as a condition for approval of a project).

The first step in the analysis (described in SECTION 3.0) indicated that significantly more regulatory and resource management programs are being implemented in the existing institutional framework than finance mechanisms or other non-regulatory programs. The following are general observations about each of the institutional framework categories and how they relate to priority problems.

- **Regulatory Programs:** Most of the regulatory authorities/programs that address all six priority problems in some capacity are implemented by State agencies. This is supplemented by the regulatory authorities/programs of local agencies for some, but not all, the priority problems. Regulatory activities of federal agencies mostly provide authority, technical assistance, and program management to the state agencies. Some of the federal regulatory programs that address some, but not all, of the priority problems include permitting and enforcement activities.
- **Resource Management Programs:** Resource management programs are implemented by all levels of government for all the priority problems. Local agencies have fewer resource management programs than the state or federal agencies.
- **Finance Mechanisms:** Finance mechanisms are available almost exclusively from state and federal agencies. Most of the financing available is for implementation of activities by state and local agencies. A few finance mechanisms are available that provide funding directly to landowners (through cost-share and loan programs). For the most part, local agencies do not implement finance mechanisms.
- **Other Non-Regulatory Programs:** Voluntary initiatives/incentives and public education and technical assistance programs are implemented by all levels of government for all the priority problems. Most of the public education and technical assistance programs are being implemented by State and federal agencies. Planning efforts (defined in the Institutional Inventory as those related to land use and growth management) are implemented almost exclusively by local agencies. Other planning efforts by state and federal agencies (such as watershed planning, fire management planning, and hazardous materials management planning) are considered resource management activities in this institutional framework analysis.

The second and third steps in the analysis (as described in SECTION 3.0) provided the information on effectiveness of local programs contained in Tables 4.1A, 4.2A, 4.3A, 4.4A, 4.5A and 4.6A.

For state and federal programs, the second and third steps in the analysis indicate that similar successful aspects and problems occur regardless of the type of program or the priority problem addressed by a program. This may be due to the fact that state and federal agency programs of all types address sedimentation, bacteria, nutrients, and heavy metals and other toxins simultaneously. For the most part, these programs do not apply uniquely to any one of these potential pollutants or priority problems. A more unique set of state and federal agency programs exists that address reduction in fresh water flow and habitat loss. However, these programs exhibit similar successful aspects and problems with effectiveness as those that address the other priority problems.

The most common problem indicated for all types of programs was insufficient resources. Following insufficient resources, difficulties coordinating and cooperating with other agencies was cited most frequently as limiting program effectiveness. Several agencies also indicated unclear goals, responsibilities and procedures limited effectiveness of some programs. The most common successful aspects of programs reported include complementary programs and statutory authority. Several agencies also indicated that programs they implement have support of the public.

The following paragraphs provide a summary of problems with effectiveness of programs by institutional framework category.

State and federal regulatory programs seem to be more limited by difficulties coordinating and cooperating with other agencies than by insufficient resources. The following suggestions were repeatedly made to improve effectiveness of state and federal regulatory programs: streamline permit processes, improve public outreach, improve interagency coordination, and implement comprehensive approaches (watershed management, habitat conservation planning, TMDL).

State and federal resource management programs are limited by difficulties coordinating and cooperating with other agencies, and by unclear goals, procedures and responsibilities, in addition to insufficient resources. Suggestions to improve effectiveness of resource management programs include: streamline permit processes, improve public outreach, offer incentives for implementation of nonpoint source pollution controls, coordinate monitoring efforts, evaluate urban runoff as a source of metals and develop appropriate control measures, improve interagency coordination.

State and federal finance mechanisms are limited by insufficient resources and difficulties coordinating and cooperating with other agencies. Suggestions to improve effectiveness of finance mechanisms include: improve public outreach, and improve interagency coordination to avoid duplication of spending.

Other state and federal non-regulatory programs seem to be more limited by difficulties coordinating and cooperating with other agencies than by insufficient resources. The following suggestions were repeatedly made to improve effectiveness of other state and federal non-regulatory programs: expand existing education and monitoring activities, improve public outreach, and improve interagency coordination.

Tables 4.1B through 4.6E in the remainder of this section show information on effectiveness of each program or group of programs analyzed. In the tables and throughout the remainder of this document, agencies and programs are referred to by acronyms to save space. Table 2 explains acronyms for agencies and Table 3 explains acronyms for programs.

TABLE 2
Agency Acronyms

AGENCY NAME	ACRONYM
City of Morro Bay	CMB
Planning and Building Department	CMB P & B Dept.
Public Works Department	
Harbor Department	
Recreation and Parks Department	
San Luis Obispo County	SLO Co.
Planning and Building Department	SLO Co. P & B Dept.
Public Health Dept., Environmental Health Division	SLO Co. EHD
Engineering Department	
Agriculture Department	SLO Co. Ag. Dept.
General Services, Parks	
Coastal San Luis Resource Conservation District	RDC
Air Pollution Control District	SLO Co. APCD
Council of Governments	SLO Co. COG
State of California	
California Coastal Commission Resources Agency	CCC
Department of Fish and Game, Resources Agency	DFG
Dept. of Fish & Game, Office of Oil Spill Prevention & Response, Resource Agency	OSPR
Department of Health Services, Health and Welfare Agency	DHS
Department of Pesticide Regulation, Cal/EPA	DPR
Regional Water Quality Control Board, Cal/EPA	RWQCB
State Coastal Conservancy, Resources Agency	SCC
State Land Commission	SLC
State Water Resources Control Board, Cal/EPA	SWRCB
California Conservation Corps, Resources Agency	CA Cons. Corps
California Integrated Waste Management Board, Cal/EPA	CIWMB
California National Guard – Camp San Luis Obispo, Military Department	CA Nat'l Guard/Camp SLO
Department of Boating and Waterways, Resources Agency	DBW
Department of Conservation, Resources Agency	DOC
Department of Forestry and Fire Protection, Resources Agency	CDF
Department of Parks and Recreation (DP&R), Cal/EPA	DP&R
Department of Toxic Substances Control, Cal/EPA	DTSC
Dept. of Transportation, Business, Transportation & Housing Authority	Cal Trans
Department of Water Resources, Resources Agency	DWR
Office of Environmental Health Hazard Assessment, Cal/EPA	OEHHA
University of California, Cooperative Extension Service	U.C. Coop. Extension
United States Government – Federal Agencies	U.S.
U.S. Environmental Protection Agency	EPA
U.S. Army Corps of Engineers	USOE
U.S. Fish and Wildlife Service, U.S. Dept. of the Interior	USFWS
Natural Resources Conservation Service, U.S. Dept. of Agriculture	NRCS, USDA
Farm Service Agency, U.S. Department of Agriculture	FSA, USDA
National Oceanic & Atmospheric Administration, U.S. Dept. of Commerce	NOAA
National Oceanic and Atmospheric Administration, National Marine Fisheries Service, U.S. Dept. of Commerce	NOAA, NMFS
U.S. Coast Guard	USCG
U.S. Forest Service, U.S. Dept. of Agriculture	USFS
U.S. Geological Society, U. S. Dept. of the Interior	USGS

TABLE 3
Program Acronyms

PROGRAM	PROGRAM ACRONYM
Total Maximum Daily Load	TMDL
National Estuary Project	NEP
Nonpoint Source Pollution Control/Coastal Zone Act Reauthorization Amendments	NPSPC/CZARA
Water Quality Assessment	
State Revolving Fund	
Monitoring Effects/Volunteer Monitoring	
Inactive Mine Study	
Nonpoint Source/Coastal Zone Act Reauthorization Amendments	NPS/CZARA
Clean Water Act, Section 401	CWA 401

4.1 EFFECTIVENESS ANALYSIS: PROGRAMS ADDRESSING SEDIMENTATION

TABLE 4.1A
Local Program Effectiveness
Addressing Sedimentation In Morro Bay Watershed

Agency	Effectiveness Analysis
City of Morro Bay	<ul style="list-style-type: none"> • The City's General Plan/LCP policies, programs, and ordinances appear to effectively address the control of erosion and sedimentation from construction sites and other development projects. In general, regulatory goals, procedures, and responsibilities are clearly stated, and the General Plan/LCP policies and ordinances are strong and fairly complete. Identification of related policies and ordinances that address sedimentation, however, can be time-consuming, as these policies and ordinances are located in different land use and water quality sections of the General Plan/LCP. • In recent years, the City Planning and Building Department staff has consisted of only one full-time staff person. Additional planning staff would help to ensure that sedimentation issues are adequately addressed at CEQA level, and that General Plan/LCP policies and zoning ordinances are being complied with and enforced as necessary. In addition, implementation of policies is not always consistent with the City General Plan/LCP. One potential reason for this is that City decision-makers need to be better informed about erosion and sedimentation problems and solutions when they make decisions. This could require more communication between agency staff and the decision-makers. • The City does not require that all storm drains contain grease/silt traps. Only three of the 21 drains that discharge into the Bay contain grease/silt traps. In addition, the City's Storm Drain Master Plan does not address aging metal drains and pipelines (many lines within the City are at least 30-years-old and may be in need of maintenance or replacement). A rupture of a storm drain in 1995 resulted in the discharge of large volumes of sediment into Morro Bay. • Approximately 20% of the City's Public Works budget is dedicated to the street-sweeping program. In dry years, this program appears to be very effective as it keeps sediment and debris out of the storm drains and out of the Bay. In extreme wet years, however, the program's effectiveness is outweighed by the problem of aging storm drains: the amount of sediment removed from the streets during street sweeping is considerably smaller than the amount of sediment that reaches the Bay during a rupture of a storm drain. • City agencies coordinate very well with each other through regular meetings. The City Planning and Building Department staff also coordinate well with other agency staffs such as the Coastal Commission on LCP-related issues.

<p>County of San Luis Obispo</p>	<ul style="list-style-type: none"> • The County's General Plan/LCP and Area Plan policies and programs appear to effectively address the control of sediment from urban sources, including new development such as grading and construction. In general, goals, responsibilities and procedures are clearly-stated. However, corresponding ordinances do not require that any consideration of the effect of drainage water on receiving water quality. In addition, no ordinances address routine grading or tree and riparian vegetation removal on agricultural lands. Identifying related policies and ordinances, can also be time-consuming, as the policies and ordinances that address sedimentation are located in different land use sections of the General Plan/LCP. An appendix summarizing NPS-related policies and ordinances would better inform planners and the public about bacteria issues. • Most regulation by the County is triggered by a request for new development. The County cannot regulate many activities on agricultural land because they are considered existing agricultural uses that do not require a permit. In some instances, there is concern that farmers will not install erosion- and sediment-control measures on agricultural lands, which would require permits, because the permitting process appears to be burdensome. • Additional planning staff could improve the County's ability to adequately enforce General Plan/LCP policies and zoning ordinances, and to ensure that sedimentation issues are adequately addressed at CEQA level. • Public agency projects, such as golf courses, have not received the same level of review or enforcement as private development projects. • Implementation of policies is not always consistent with the County General Plan/LCP. A potential reason for this is that decision-makers could to be better informed about erosion and sedimentation problems and solutions when making decisions; in addition, coordination could be increased between decision-makers and County agencies. • County agency coordination with other agencies, such as CCC, DFG, SLC, RWQCB is relatively good. • Methods used by the County Engineering Department for road maintenance—specifically the placement of spoils from road projects in locations that facilitate soil being washed by rains into the estuary—need to be reviewed by the County and revised, and/or the County should involve the RWQCB in implementing better practices.
<p>Coastal San Luis RCD</p>	<ul style="list-style-type: none"> • The RCD is held in good regards with both the public and with other local, State and federal agencies. There is excellent coordination in implementing sedimentation-control projects on a public and government level, and RCD programs and projects have been successfully implemented within the Morro Bay watershed. • Lack of sufficient funding to conduct or finance projects is often a limiting factor in the RCD's ability to address other sources of rapid sedimentation throughout the watershed.

TABLE 4.1B
State/Federal Regulatory Program Effectiveness
Addressing Sedimentation in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p>Successful Aspects:</p> <ul style="list-style-type: none"> • Clear goals and responsibilities • Complementary programs • Support through statutory authority • Support of the public <p>Problems:</p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating with other organizations • Insufficient resources • Other Comments: • Improvements could be made by better coordination and cooperation amongst all the programs themselves • The State's NPS program would benefit from an upgrade, while the CNPCP is still in development • The SWRCB should provide outreach materials on these plans to the NEP when new standards are adopted
TMDL	<p>Successful Aspects:</p> <ul style="list-style-type: none"> • Complementary programs • Support through statutory authority <p>Problems:</p> <ul style="list-style-type: none"> • Unclear goals, responsibilities, and procedures • Insufficient resources • Lack of public support

RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulty in coordinating/cooperating with other organizations and with dischargers <p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear responsibilities and procedures • Competing/conflicting programs (TMDL & NPS) • Difficulties in coordinating/cooperating with other agencies and organizations • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The public but does not seem to understand what is involved in development and implementation of a TMDL. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More outreach to local government agencies by regional board staff, informational brochures to improve public support, consolidating the permitting functions at one key agency to facilitate implementation of consistent or regional watershed conservation measures. • Use permitting models such as the one NRCS uses in Elkhorn Slough, where they acquired a regional Section 404/401 permit for conservation measures approved by all agencies. Landowners in-turn go through NRCS, as opposed to going through four or five agencies, to obtain necessary approvals.
CCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with local government staffs on LCP-related issues, and with other state and federal agencies in ensuring that issues related to grading and vegetation removal are addressed properly <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More outreach to local government agencies by CCC staff, including facilitating the implementation of regional watershed conservation measures and urban runoff programs that are consistent with the CNPCP as well as CWA Section 319 • Use permitting models such as the one NRCS uses in Elkhorn Slough where landowners go through NRCS, instead of four or more agencies, to obtain necessary approvals for implementation of conservation measures.
DFG	<p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Lack of staff to complete effective review of CEQA documents related to sedimentation impacts on fish and wildlife, and a lack of wardens to enforce Fish and Game Code policies. • DFG could also improve its outreach to the general public to improve understanding and acceptance of their role in protecting the Bay and its beneficial uses. • Lake/Streambed Alteration Agreements are an effective regulatory mechanism for protecting fish and wildlife from sources that could increase sedimentation levels in the watershed.

USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating both internally and with other agencies • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Increase public outreach <p><u>Successful Aspects:</u></p> <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear responsibilities and procedures • Competes/conflicts with existing programs • Difficulties in coordinating/cooperating with other agencies • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The TMDL program is the closest existing model for a statutory basis for watershed planning and management and supports environmental and watershed interests. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Public needs to be more informed about TMDLs • Local education and outreach from Regional Board to stakeholder groups • Increased funding through State legislature, education, buy-in and leadership from State agency management to implement this process as required by the CWA.
ACOE	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Duplicate efforts of other agencies such as those of DFG and the RWQCB • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Coordination/cooperation with other agencies and organizations and support of the public both vary with the specific project being reviewed or permitted. • Program improvements could include implementation of watershed management plans, special area management plans, mitigation banks, in-lieu fee agreements, better communication and coordination and development of regional general permits.

TABLE 4.1C
State/Federal Resource Management Program Effectiveness
Addressing Sedimentation in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complimentary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear goals, responsibilities and procedures • Difficulties in coordinating/cooperating internally amongst programs and with other agencies • Insufficient resources • Lack of support from management <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Implementation of the State's CNPCP is in development and cannot be evaluated at this time. However, the SWRCB and CCC anticipate implementing the 15- and 5-year strategies in part through interagency taskforces to guide and coordinate the polluted-runoff-management efforts of State, local and federal agencies in California. The CCC and SWRCB staffs are currently working to identify a process by which other agencies, stakeholder groups, and other members of the public can review and comment on the Management Measures Review document and the 15- and 5-year Implementation Strategies.

<p>RWQCB</p> <p>Monitoring Efforts</p>	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals and responsibilities • Good coordination/cooperation with other internal organizations and activities such as the Watershed Management Initiative and TMDLs • Good coordination with other organizations regarding NPS management issues • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear procedures to meet the goals • Insufficient resources • Lack of public support <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The public does not generally understand State authority to regulate NPS pollution, nor fully understands that many acceptable land use activities contribute to this type of pollution. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Develop incentives to implement NPS control measures such as streamlined permitting, increasing outreach to agriculture interest groups, and sharing information with other regions in the State and improving state-wide consistency so effective approaches and tools can be applied locally.
<p>CCC</p>	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other organizations • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Efforts together are not comprehensive. Gaps exist in locations and frequency of monitoring and in compatibility of data generated by the various efforts.
<p>CA Nat'l Guard/Camp SLO</p>	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • See SWRCB discussion on the CNPCP
<p>SCC</p>	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complement other programs and priorities • Good coordination/cooperation with other organizations • Sufficient resources for activities to date • Support through statutory authority • Support of the public and the Morro Bay Task Force <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The SCC has been exemplary in implementing resource management projects in the Morro Bay watershed. Its coordination with both government agencies and with public should be used as a model for future projects throughout the watershed. • The SCC has completed all scheduled activities in the watershed to date. Additional funding is needed for projects that are still deemed necessary to maintain and continue to enhance the area's resources.

NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none">• Clear goals• Complementary programs• Good coordination/cooperation with other organizations• Supported by the public <p><u>Problems:</u></p> <ul style="list-style-type: none">• Insufficient recourses both to provide directly to landowners for installation of conservation practices and to support continuation of NRCS staff efforts at public education and technical assistance• Program effectiveness could be improved <p><u>Other Comments:</u></p> <ul style="list-style-type: none">• Integrated their efforts and participated in development of the CCMP <p><u>Suggestions:</u></p> <ul style="list-style-type: none">• The agency would also benefit by having access to geomorphology expertise to advise on restoration needs for Los Osos Creek.
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USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating internally and with other agencies • Insufficient resources • Poor public outreach
NEP	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources • Lack of statutory authority <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Improve USEPA guidance to include assistance with clarifying roles and responsibilities, managing multiple fund sources and understanding agency liability.
NPS/PC/CZARA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other agencies • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More efforts like the Clean Water Action Plan which promote increased collaboration • Integrate approaches among all levels of government • Revision of the CWA § 319 allocation formula to provide equity in funding to Western States
Water Quality Assessment	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Use the California Geo-Waterbody System--a GIS database being developed at UC Davis which aims to simplify and make consistent the reporting requirements of CWA § 305(b); this will help facilitate the RWQCB's required biennial reporting process.
USFS	<ul style="list-style-type: none"> • Implements erosion and sedimentation, including rangeland management (grazing allotments and permits), forestland management (reforestation), and soil/water/air protection (reclamation of abandoned mines).

TABLE 4.1D
State/Federal Finance Mechanism Effectiveness
Addressing Sedimentation in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB/ RWQCBs	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other state and local agencies • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient funds <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The State Revolving Fund program exhibits difficulties in coordinating and cooperating with other organizations but has sufficient resources to be effective. • The Underground Storage Tank Cleanup Fund program is well-coordinated with local agencies and has sufficient resources. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • These finance mechanisms would be more effective if coordination internally and with other organizations were improved to clarify funding priorities within watersheds, which would avoid duplication of spending. • The Clean Water Act Grant Fund activities would be more effective by expediting the process of making the federal funds available to local agencies and organizations.
DFG/ Wildlife Conservation Board	<ul style="list-style-type: none"> • DFG funding for projects that address sedimentation issues effectively fulfills the mandates and mission of the DFG. • Insufficient resources
SCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complement other programs and priorities • Good coordination/cooperation with other organizations • Uniqueness of the program • Sufficient resources for activities to date • Support through statutory authority • Support by the public and the Morro Bay Task Force <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The SCC has been exemplary in implementing resource management projects in the Morro Bay watershed. Its coordination with both government agencies and with public should be used as a model for future projects throughout the watershed. • The SCC has completed all scheduled activities in the watershed to date. Additional funding is needed for projects that are still deemed necessary to maintain and continue to enhance the area's resources.

USEPA	<u>Successful Aspects:</u> <ul style="list-style-type: none">• Clear goals• Complementary programs• Good coordination/cooperation with other organizations• Uniqueness of the program (no funding duplication)• Supported by other agencies and the public <u>Problems:</u> <ul style="list-style-type: none">• Insufficient resources• Lack of statutory authority <u>Suggestions:</u> <ul style="list-style-type: none">• Make information on available grants more accessible to the public• Automate and expedite the grant process.
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TABLE 4.1E
Other State/Federal Non-Regulatory Programs Effectiveness
Addressing Sedimentation In The Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
RWQCBs	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complements the activities of the NEP, National Monitoring Program, and the Shellfish Technical Advisory Committee. • Good coordination/cooperation with other organizations • Uniqueness of the program • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Expand the hands-on monitoring to other stakeholder groups • Increase funds to support a volunteer coordinator, equipment purchases, data analysis, and lab costs. • Provide more direct involvement by Regional Board staff in the Ranch Planning Water Quality Short Course.
DOC	<ul style="list-style-type: none"> • Provides technical assistance and outreach to public agencies and private entities.
CA Nat'l Guard/ Camp SLO	<ul style="list-style-type: none"> • Developing an Integrated Natural Resources Management which includes future measures for land restoration; implements a Stormwater Pollution Prevention Plan.
U. C. Coop Extension	<ul style="list-style-type: none"> • Provides water-quality-related education and outreach to farmers and ranchers.
NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complements other programs • Good coordination/cooperation with other organizations and internal programs • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Greater outreach to the public so that more landowners could receive education and assistance with conservation techniques.

4.2 EFFECTIVENESS ANALYSIS: PROGRAMS ADDRESSING BACTERIA

TABLE 4.2A
Local Program Effectiveness
Addressing Bacteria in Morro Bay Watershed

Agency	Effectiveness Analysis
City of Morro Bay	<ul style="list-style-type: none"> • Although a moratorium on septic systems imposed by Regional Water Quality Control Board has limited new development within City borders, additional planning department staff would help to ensure that bacteria issues are adequately addressed at the CEQA level, that implementation of policies is more consistent with the City General Plan/LCP, and that General Plan/LCP policies and zoning ordinances are being complied with and enforced as necessary. Over the past several years, the Department has been operated by only one full-time staff person. There are also too few staff working for the Harbor Department to effectively enforce the liveaboard ordinance. • Identification of General Plan/LCP policies and ordinances that address bacteria can be time-consuming, as these policies and ordinances are located in different land-use and water quality sections of the General Plan/LCP. An appendix summarizing NPS-related policies and ordinances would better inform planners and the public about bacteria-related issues. • The City cannot enforce its liveaboard ordinance if boats move beyond the City's jurisdiction. The County and State Department of Parks must develop similar policies/ordinances/programs and Recreation to ensure that boat owners properly dispose of their head wastes. • City decision-makers would benefit by being better informed about bacteria-related problems and solutions when they make decisions. This would require more communication between agency staff and the decision-makers. • In general, the City Department staffs coordinate well with each other. The City Planning and Building Department staff also coordinate well with other agency staffs such as the Coastal Commission on LCP-related issues. • Identification of General Plan/LCP policies and ordinances that address bacteria can be time-consuming, as these policies and ordinances are located in different land -use and water quality sections of the General Plan/LCP. An appendix summarizing NPS-related policies and ordinances would better inform planners and the public about bacteria issues. • There are few and often times inaccessible pumpout facilities available to boaters. One is always inaccessible, two are kept locked up (although the harbor department will open the facilities up when requested), and the fourth is at a private business (Beacon gas station). Although harbor officials report that citizens bring their waste into the restrooms at the park, it is extremely probable that some of these individuals do not. The extent of the problem is currently unknown. Additional and more accessible facilities are essential to addressing marina and boating sources of bacteria. A mobile pump-out service that goes to boats and live-aboards may be a solution provided the funding can be obtained.

<p>County of San Luis Obispo</p>	<ul style="list-style-type: none"> • Identifying bacteria-related policies and ordinances in the County's General Plan/LCP and Area Plans can be time-consuming, as the policies and ordinances that address bacteria are located throughout the General Plan/LCP. An appendix summarizing NPS-related policies and ordinances would better inform planners and the public about bacteria issues. • Implementation of policies is also not always consistent with the County General Plan/LCP. A potential reason for this is that decision-makers need to be better informed about bacteria-related problems and solutions when making decisions. In addition, coordination could be increased between decision-makers and County agencies. This would require more communication between agency staff and the decision-makers. • Additional planning staff could improve the County's ability to address bacteria issues at the CEQA level and to adequately enforce General Plan/LCP policies and zoning ordinances. • County agencies coordinate relatively well with other agencies, such as the CCC, DFG, SLC, RWQCB. • The Environmental Health agency's Small Water Program is considered by both the State Health agency and the general public as a very effective program. The other programs are also thought to be quite effective in monitoring for bacteria levels and are all supported by the public, statutory authority and receive sufficient resources to carry out the mandates of the programs. • County's planning, operation and maintenance of storm drain facilities does not address storm water quality comprehensively. • Most regulation by the County is triggered by a request for new development. The County cannot regulate many activities on agricultural land because they are considered existing agricultural uses that do not require a permit. In some instances, there is concern that farmers will not install measures to control bacteria on agricultural lands, which would require permits, because the permitting process appears to be burdensome. • The County should develop and enforce policies, ordinances, and/or programs similar to the City of Morro Bay's liveaboard ordinance to ensure that boat owners that move their vessels beyond the City's jurisdiction will properly dispose of their head wastes.
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TABLE 4.2B
State/Federal Regulatory Program Effectiveness
Addressing Bacteria in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals and responsibilities • Complementary programs • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Coordination and cooperation amongst the programs themselves, as well as with other organizations • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The State's NPS program would also benefit from an upgrade, which could be coordinated with the development and implementation of the State CNPCP. • The Inland Surface Waters Plan and enclosed Bays and Estuaries Plan are not effective. The SWRCB should provide outreach materials on these plans to the NEP when new standards are adopted.
<u>TMDL</u>	<p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear goals, procedures and responsibilities • Lack of support/understanding from the public • Insufficient funds
RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating with other agencies, dischargers and the general public <p><u>TMDL</u></p> <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear responsibilities and procedures • Difficulties in coordination/cooperation with other agencies and organizations • Insufficient resources (extremely) <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The public tends to support the program but does not seem to understand what is involved in development and implementation of a TMDL. • The TMDL process addresses NPS pollution management, but the agency priorities related to TMDL development and implementation do not necessarily coincide with agency NPS pollution management priorities. • Implementation in the State has been time-consuming and very expensive

CCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Coordinate well with local government staffs on LCP-related issues, and with other state and federal agencies. <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Lack of staff resources is a limiting factor in both CEQA review process and enforcement process in addressing sources of bacteria. • The CCC's regulations that address bacteria are primarily limited to new development permits, enforcement of conditions, and amendments to the city and county LCP. These functions are especially effective in the siting of new development other than agricultural development. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More outreach to local government agencies by CCC staff, including facilitating the implementation of regional watershed conservation measures and urban runoff programs that are consistent with the CNPCP as well as CWA Section 319. • Using permitting models such as the one NRCS uses in Elkhorn Slough where landowners go through NRCS, instead of four or more agencies, to obtain necessary approvals for implementation of conservation measures.
DFG	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with other agencies and with the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources (staff and funds) to enforce policies and regulations on a regular basis, and to complete effective review of CEQA documents for projects that may generate bacteria in the watershed. <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Contains strong enforceable policies to protect fish and wildlife from activities that could potentially increase bacteria levels in the watershed. • Lack of outreach to the general public
DHS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination with other agencies <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Long-term bacteria monitoring has provided a useful record for assessing potential impacts from bacteria. • Have strong enforceable policies and regulations

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USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating internally and with other agencies • Insufficient funding <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Provides the basis for many other programs • Lack of public outreach
TMDL	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Support through statutory authority • Supports environmental and watershed interests <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear responsibilities and procedures • Competes/conflicts with existing programs • Difficulties in coordinating/cooperating with other agencies • Insufficient resources • General public not informed <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Local education and outreach from Regional Board to public stakeholder groups • Increase funding through State legislature, education, buy-in and leadership from State agency management to implement this process required by the CWA.
USCG	<ul style="list-style-type: none"> • Regulates vessel waste disposal from marine sanitation devices

TABLE 4.2C
State/Federal Resource Management Program Effectiveness
Addressing Bacteria In The Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear goals, responsibilities and procedures • Difficulties in coordinating/cooperating internally amongst programs and with other agencies. • Insufficient resources • Lack of support from management
RWQCB NPS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation internally and with other organizations • Support through statutory authority • Support of the public <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Local public supports these efforts but does not generally understand State authority to regulate NPS pollution. The public does not seem to fully understand that many acceptable land use activities contribute to this type of pollution. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Develop incentives to implement NPS control measures such as streamlined permitting, increasing outreach to agriculture interest groups, and sharing information with other regions in the State and improving state-wide consistency so effective approaches and tools can be applied locally.
<u>Monitoring Efforts</u>	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other organizations • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources • Not comprehensive. Gaps exist in locations and frequency of monitoring and in compatibility of data generated by the various efforts.

NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear program goals • Complementary programs • Good coordination/cooperation with other organizations • Support from the public • Allowed NRCS staff to integrate their efforts and participate in development of the CCMP <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • This has been one of NRCS's most effective programs in the Morro Bay Watershed. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Program would improve with additional funds both to provide directly to landowners for installation of conservation practices and to support continuation of NRCS staff efforts at public education and technical assistance. • Have access to geomorphology expertise to advise on restoration needs for Los Osos Creek • Have NRCS facilitate and promote permit-streamlining efforts locally in order to remove permitting hurdles, which currently create a disincentive to local landowners for implementing conservation practices. Permit-streamlining pilot projects, currently being conducted in the Elkhorn Slough Watershed and initiated in the Salinas River Watershed, may be appropriate to transfer to the Morro Bay Watershed.
USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority • Provides the basis for many other programs <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordination/cooperation internally and with other agencies • Insufficient funding • Lack of public outreach
NPSPC/ CZARA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other agencies • Support through statutory authority • Support of public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More efforts like the Clean Water Action Plan which promote increased collaboration and integrated approaches among all levels of government, revision of 319 allocation formula to provide equity to the Western States.

TABLE 4.2D
State/Federal Finance Mechanism Effectiveness
Addressing Bacteria in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other state and local agencies • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient funds
State Revolving Fund	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Sufficient resources <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating with other agencies
RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Support through statutory authority • Public support <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • The Clean Water Act Grant Fund activities would be more effective if the process of making these federal funds available to local agencies and organizations could be expedited.
DBW	<ul style="list-style-type: none"> • Administers the Pumpout Grant Program which has not been used in Morro Bay.
NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other organizations • Support through statutory authority <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Landowners are not currently taking advantage of these programs to the extent possible and the opportunities to tap into these nation-wide resources are limited within the watershed.
USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources • Lack of statutory authority <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Information on available grants should be more accessible to the public • The grant process should be expedited through automation
USFWS	<ul style="list-style-type: none"> • Administers Clean Vessel Act Grants but have not been used in Morro Bay.

TABLE 4.2E
Other State/Federal Non-Regulatory Programs Effectiveness
Addressing Bacteria in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
RWQCBs	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complements the activities of the NEP, National Monitoring Program, and the Shellfish Technical Advisory Committee • Good coordination/cooperation with other organizations • Uniqueness of the program • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • The program could be improved by expanding the hands-on monitoring to other stakeholder groups, increasing funds to support a volunteer coordinator, equipment purchases, data analysis, and lab costs, and providing more direct involvement by Regional Board staff in the Ranch Planning Water Quality Short Course.
CCC	<ul style="list-style-type: none"> • Implements boater education
DBW	<ul style="list-style-type: none"> • Involved in developing and distributing educational/technical information regarding vessel pumpout locations and State and federal marine pollution laws
UCCE	<ul style="list-style-type: none"> • Provides education and outreach to farmers and ranchers
NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Good coordination/cooperation with other organizations and internal programs • Support of the public <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Program effectiveness could be improved with additional funds so that more landowners could receive education and assistance with conservation techniques.

4.3 EFFECTIVENESS ANALYSIS: PROGRAMS ADDRESSING NUTRIENTS

TABLE 4.3A
Local Program Effectiveness
Addressing Nutrients in Morro Bay Watershed

Agency	Effectiveness Analysis
City of Morro Bay	<ul style="list-style-type: none"> • Although a moratorium on septic systems imposed by Regional Water Quality Control Board has limited new development within City borders, additional planning department staff would help to ensure that nutrient-related issues are adequately addressed at the CEQA level, that implementation of policies is more consistent with the City General Plan/LCP, and that General Plan/LCP policies and zoning ordinances are being complied with and enforced as necessary. Over the past several years, the Department has been operated by only one full-time staff person. There are also too few staff working for the Harbor Department to effectively enforce the City's liveaboard ordinance. • Identification of General Plan/LCP policies and ordinances that address nutrients can be time-consuming, as these policies and ordinances are located in different land-use and water quality sections of the General Plan/LCP. An appendix summarizing NPS-related policies and ordinances would better inform planners and the public about nutrient-related issues. • The City cannot enforce its liveaboard ordinance if boats move beyond the city's jurisdiction. Similar policies/ordinances/programs should be developed and implemented by the County and State Department of Parks and Recreation to ensure that boat owners properly dispose of head wastes. • City decision-makers would also benefit by being better informed about nutrient-related problems and solutions when they make decisions. This would require more communication between agency staff and the decision-makers. • In general, the City Department staffs coordinate well with each other. The City Planning and Building Department staff also coordinate well with other agency staffs such as the Coastal Commission on LCP-related issues. • Overall, the Public Works Department's street-sweeping program is considered to be very effective. Because of the pitch canker disease, the amount of pine needles falling to City streets has increased, making the street sweeping program even more necessary. Reducing the amount of leaves and pine needles off the street can be improved by implementing a maintenance program to maintain trees. This could lessen the need for more sweeping, which also would lessen overall operation costs. • There are few and often times inaccessible pumpout facilities available to boaters. One is always inaccessible, two are kept locked up (although the harbor department will open the facilities up when requested), and the fourth is at a private business (Beacon gas station). Although harbor officials report that citizens bring their wastes into the restrooms at the park, it is extremely probable that some of these individuals do not. The extent of the problem is currently unknown. Additional and more accessible facilities are essential to addressing marina and boating sources of nutrients. A mobile pump-out service that goes to boats and liveaboards may be a solution provided the funding can be obtained.

<p>County of San Luis Obispo</p>	<ul style="list-style-type: none"> • Identifying nutrient-related policies and ordinances in the County's General Plan/LCP and Area Plans can be time-consuming, as the policies and ordinances that address nutrients are located throughout the General Plan/LCP. An appendix summarizing NPS-related policies and ordinances would better inform planners and the public about nutrient issues. • Implementation of policies is also not always consistent with the County General Plan/LCP. A potential reason for this is that decision-makers could to be better informed about nutrient-related problems and solutions when making decisions; in addition, coordination could be increased between decision-makers and County agencies. This would require more communication between agency staff and the decision-makers. • Additional planning staff could improve the County's ability to address nutrient issues at the CEQA level and to adequately enforce General Plan/LCP policies and zoning ordinances. • County agencies coordinate relatively well with other agencies, such as the CCC, DFG, SLC, RWQCB. • The Environmental Health agency's Small Water Program is considered by both the State Health agency and the general public as a very effective program. The other programs are also thought to be quite effective in monitoring for nutrient levels and are all supported by the public, statutory authority and receive sufficient resources to carry out the mandates of the programs. • County's planning, operation and maintenance of storm drain facilities does not address storm water quality comprehensively. • Most regulation by the County is triggered by a request for new development. The County cannot regulate many activities on agricultural land because they are considered existing agricultural uses that do not require a permit. In some instances, there is concern that farmers will not install measures to control nutrients on agricultural lands, which would require permits, because the permitting process appears to be burdensome. • The County should develop and enforce policies, ordinances, and/or programs similar to the City of Morro Bay's liveaboard ordinance to ensure that boat owners that move their vessels beyond the City's jurisdiction will properly dispose of their head wastes.
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TABLE 4.3B
State/Federal Regulatory Program Effectiveness
Addressing Nutrients in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals and responsibilities • Complementary programs • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating amongst the programs themselves, as well as with other organizations • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • The State's NPS program would benefit from an upgrade, while the CNPCP is still in development.
RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating with other agencies, dischargers and the general public
CCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with local government staffs on LCP-related issues, and with other state and federal agencies in ensuring that issues related nutrient releases are addressed properly <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Lack of staff resources is a limiting factor in both CEQA review process and enforcement process in addressing sources of nutrients. • The CCC's regulations that address nutrients are primarily limited to new development permits, enforcement of conditions, and amendments to the city and county LCP. These functions are especially effective in the siting of new development other than agricultural development. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More outreach to local government agencies by CCC staff, including facilitating the implementation of regional watershed conservation measures and urban runoff programs that are consistent with the CNP as well as CWA Section 319 • Using permitting models such as the one NRCS uses in Elkhorn Slough where landowners go through NRCS, instead of four or more agencies, to obtain necessary approvals for implementation of conservation measures

DFG	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with other agencies and with the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Lacks sufficient resources (staff and funds) to enforce policies and regulations on a regular basis, and to complete effective review of CEQA documents for projects that may generate nutrients in the watershed • Lack of outreach to the general public • DFG has strong enforceable policies to protect fish and wildlife from activities that could potentially increase nutrient levels in the watershed.
DHS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with other agencies <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Long-term monitoring has provided a useful record for assessing potential water quality impacts. • DHS also has strong enforceable policies and regulations
USCG	<ul style="list-style-type: none"> • Regulates vessel waste disposal from marine sanitation devices
USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority • Provides the basis for many other programs <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating internally and with other agencies • Insufficient resources • Lack of public outreach
TMDL	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Support through statutory authority • Supports environmental and watershed interests <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear responsibilities and procedures • Competes/conflicts with existing programs • Difficulties in coordinating/cooperating with other agencies • Insufficient resources • General public not informed <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Local education and outreach from Regional Board to public stakeholder groups • Increased funding through State legislature, education, buy-in and leadership from State agency management to implement this process required by the CWA <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The effectiveness of the USEPA's TMDL program relates specifically to important activities currently being planned or implemented by State agencies. (See Regional Board discussion of TMDL for Morro Bay.) This program is the closest existing model for a statutory basis for watershed planning management.

TABLE 4.3C
State/Federal Resource Management Program Effectiveness
Addressing Nutrients in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear goals, responsibilities and procedures • Difficulties in coordinating/cooperating internally amongst programs and with other agencies • Insufficient resources • Lack of support from management
RWQCB NPS Monitoring Efforts	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary activities • Good coordination/cooperation internally and with other organizations • Support through statutory authority • Local public supports these efforts but does not generally understand State authority to regulate NPS pollution. The public does not seem to fully understand that many acceptable land use activities contribute to this type of pollution. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Develop incentives to implement NPS pollution practices such as streamlined permitting. • Increase outreach to fishing and agriculture interest groups • Increase technical assistance to municipal agencies <p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other organizations • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources • Not comprehensive; gaps exist in locations and frequency of monitoring and in compatibility of data generated by the various efforts.

NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear program goals • Complements other programs • Good coordination/cooperation with other organizations • Support from the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • This has been one of NRCS's most effective programs in the Morro Bay Watershed. • Allowed NRCS staff to integrate their efforts and participate in development of the CCMP • Insufficient funds for landowners for installation of conservation practices and to support continuation of NRCS staff efforts at public education and technical assistance • NRCS would also like to facilitate and promotes permit-streamlining efforts locally in order to remove permitting hurdles, which currently create a disincentive to local landowners for implementing conservation practices. Permit-streamlining pilot projects, currently being conducted in the Elkhorn Slough Watershed and initiated in the Salinas River Watershed, may be appropriate to transfer to the Morro Bay Watershed.
USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority • Provides the basis for many other programs <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating internally and with other agencies • Insufficient funding • Lack of public outreach
NPSPC/ CZARA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with others • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More efforts like the Clean Water Action Plan which promote increased collaboration and integrated approaches among all levels of government • Revision of the federal CWA Section 319 fund allocation formula to provide additional money to California

TABLE 4.3D
State/Federal Finance Mechanism Effectiveness
Addressing Nutrients in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB CWA State Revolving Fund	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complement other programs • Support through statutory authority <p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with other state and local agencies <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient funds <p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Sufficient resources <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating with other organizations <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • These finance mechanisms would be more effective if coordination internally and with other organizations were improved to clarify funding priorities within watersheds. This would avoid duplication of spending. The Clean Water Act Grant Fund activities would be more effective if the process of making these federal funds available to local agencies and organizations could be expedited.
RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complement other programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Support through statutory authority • Public support <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Expedite the process of making these federal funds available to local agencies and organizations.
DBW	<ul style="list-style-type: none"> • Administers the Pumpout Grant Program
NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complement other programs • Good coordination/cooperation with other organizations • Support through statutory authority <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Landowners are not currently taking advantage of these programs to the extent possible and the opportunities to tap into these nation-wide resources are limited within the watershed.

USEPA	<u>Successful Aspects:</u> <ul style="list-style-type: none">• Clear goals• Complementary programs• Good coordination/cooperation with other organizations• Uniqueness of the program• Support of the public <u>Problems:</u> <ul style="list-style-type: none">• Insufficient resources• Lack of statutory authority <u>Suggestions:</u> <ul style="list-style-type: none">• Information on available grants should be more accessible to the public• The grant process should be expedited through automation
USFWS	<ul style="list-style-type: none">• Administers Clean Vessel Act Grants

TABLE 4.3E
Other State/Federal Non-Regulatory Programs Effectiveness
Addressing Nutrients in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
RWQCBs	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complements the activities of the NEP, National Monitoring Program, and the Shellfish Technical Advisory Committee • Good coordination/cooperation with other organizations • Uniqueness of the program • Public support <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Expand the hands-on monitoring to other stakeholder groups • Increase funds to support a volunteer coordinator, equipment purchases, data analysis, and lab costs. • Provide more direct involvement by Regional Board staff in the Ranch Planning Water Quality Short Course.
CCC	<ul style="list-style-type: none"> • Implements boater education program
DBW	<ul style="list-style-type: none"> • Develops and distributes educational/technical information regarding vessel pumpout locations and laws and regulations regarding vessel sewage discharge/disposal
UCCE	<ul style="list-style-type: none"> • Provides education and outreach to farmers and ranchers
NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Good coordination/cooperation with other organizations and internal programs • Support from the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Effectiveness could be improved with additional funds so that more landowners could receive education and assistance with conservation techniques.
USCG	<ul style="list-style-type: none"> • Implements Sea Partners Campaign, which provides environmental education and outreach programs
USEPA	<ul style="list-style-type: none"> • In coordination with NOAA, provides management guidance to "Critical Coastal Areas" (those adjacent to impaired or threatened coastal waters) through the Coastal Nonpoint Pollution Control Program.

4.4 EFFECTIVENESS ANALYSIS: PROGRAMS ADDRESSING HEAVY METALS/TOXINS

TABLE 4.4A
Local Program Effectiveness
Addressing Heavy Metals/Toxins in Morro Bay Watershed

Agency	Effectiveness Analysis
City of Morro Bay	<ul style="list-style-type: none"> • Additional planning staff are needed to ensure that concerns related to heavy metals/toxins are adequately addressed at the CEQA level, that implementation of policies is more consistent with the City General Plan/LCP, and that General Plan/LCP policies and zoning ordinances are being complied with and enforced as necessary. Over the past several years, the Planning Department has been managed by one full-time staff person. The Harbor Department would also benefit from additional staff to maintain services to collect used oil and other wastes from boats. Alternatively, the City would benefit from funding to contract out for such services. • Identification of General Plan/LCP policies and ordinances that address heavy metals/toxins can be time-consuming, as these policies and ordinances are located in different land-use and water quality sections of the General Plan/LCP. An appendix summarizing NPS-related policies and ordinances would better inform planners and the public about nutrient-related issues. • City decision-makers would benefit by being better informed about heavy metal/toxins-related problems and solutions when they make decisions. This would require more communication between agency staff and the decision-makers. • In general, the City Department staffs coordinate well with each other. The City Planning and Building Department staff also coordinate well with other agency staff such as the Coastal Commission on LCP-related issues.
County of San Luis Obispo	<ul style="list-style-type: none"> • Identifying water quality-related policies and ordinances in the County's General Plan/LCP and Area Plans can be time-consuming, as the policies and ordinances that address NPS pollutants are not located in one section of the General Plan/LCP. An appendix summarizing NPS-related policies and ordinances would better inform planners and the public about nutrient issues. • Implementation of policies is also not always consistent with the County General Plan/LCP. A potential reason for this is that decision-makers could to be better informed about nutrient-related problems and solutions when making decisions; in addition, coordination could be increased between decision-makers and County agencies. This would require more communication between agency staff and the decision-makers. • Additional planning staff would improve the County's ability to address water-quality issues at the CEQA level and to adequately enforce General Plan/LCP policies and zoning ordinances. • Most regulation by the County is triggered by a request for new development. The County cannot regulate many activities on agricultural land because they are considered existing agricultural uses that do not require a permit. In some instances, there is concern that farmers will not install measures to control nutrients on agricultural lands, which would require permits, because the permitting process appears to be burdensome.

Coastal San Luis RCD	<ul style="list-style-type: none">• The work of the RCD is well regarded by the public and other agencies. The agency coordinates well with other entities to implement BMPs and sediment-control projects. RCD programs and projects have been successfully implemented within the Morro Bay watershed.• Lack of sufficient funding to conduct or finance projects is often a limiting factor in the RCD's ability to implement pesticide-control BMPs throughout the watershed.
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CCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with local government staff on LCP-related issues, and with other state and federal agencies in ensuring that issues related to water quality impacts of land uses are addressed properly <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • CCC regulations that address generation of heavy metals/toxins are limited primarily to new development, enforcement of conditions, and amendments to the city and county LCP. These functions are especially effective in the siting of new development. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More outreach to local government agencies by CCC staff, including facilitating the implementation of regional watershed conservation measures and urban runoff programs that are consistent with the CNPCP as well as CWA Section 319. • Use permitting models such as the one NRCS uses in Elkhorn Slough where landowners go through NRCS, instead of multiple agencies, to obtain necessary approvals for implementation of conservation measures.
DFG	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with other agencies and with the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources to enforce policies and regulations on a regular basis, and to complete effective review of CEQA documents for projects that may generate toxins <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Improve its outreach to the general public to improve understanding and acceptance of their role in protecting the Bay and its beneficial uses. • DFG has strong enforceable policies to protect fish and wildlife from activities that could potentially increase heavy metal/toxin levels in the watershed.
DPR	<ul style="list-style-type: none"> • Implements programs that relate to the permitting, regulation, monitoring, and sampling of pesticides and pesticide use
ACOE	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Coordination/cooperation with other agencies and organizations and support of the public both vary with the specific project being reviewed or permitted. • Program improvements could include implementation of watershed management plans, special area management plans, mitigation banks, in-lieu fee agreements, better communication and coordination and development of regional general permits.
USCG	<ul style="list-style-type: none"> • Works as the federal partner to OSPR to prevent and respond to oil and hazardous material spills on vessels and waterfront facilities

USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating internally and with other agencies • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Increase public outreach
TMDL	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Support through statutory authority • Supports environmental and watershed interests <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear responsibilities and procedures • Competes/conflicts with existing programs • Difficulties in coordinating/cooperating with other agencies • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • General public not informed about TMDLs • This program is the closest existing model for a statutory basis for watershed planning management <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Local education and outreach from Regional Board to public stakeholder groups, increased funding through State legislature • Education, buy-in and leadership from State agency management to implement this process required by the CWA

TABLE 4.4C
State/Federal Resource Management Program Effectiveness
Addressing Heavy Metals/Toxins in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear goals, responsibilities and procedures • Difficulties in coordinating and cooperating internally amongst programs and with other agencies • Insufficient resources • Lack of support from management. <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Implementation of the State's CNPCP is in development and cannot be evaluated at this time. However, the SWRCB and CCC anticipate implementing the 15- and 5-year strategies in part through interagency taskforces to guide and coordinate the polluted-runoff-management efforts of State, local and federal agencies in California. The SWRCB and CCC staffs are currently working to identify a process by which other agencies, stakeholder groups, and other members of the public can review and comment on the Management Measures Review document and the 15- and 5-year Implementation Strategies.
RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complement other programs • Good coordination/cooperation with other organizations • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources • Not comprehensive; gaps exist in locations and frequency of monitoring and in compatibility of data generated by the various efforts. <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Heavy metals and other toxins are commonly associated with urban runoff. Municipal urban runoff may be a source of metals to the Estuary that could be addressed more directly by NPS management measures.
CCC	<ul style="list-style-type: none"> • See SWRCB discussion on the CNPCP
SLC	<ul style="list-style-type: none"> • Implements program to remove structures which may be hazardous to public health and safety, provides input to the State Oil Spill Contingency Plan
DFG	<ul style="list-style-type: none"> • Conducts the State Mussel Watch Program and investigates levels of toxins in fish collected from the Morro Bay watershed as part of the Toxic Substances Monitoring Program
DHS	<ul style="list-style-type: none"> • Fulfills terms of MOU with DPR to share information on monitoring results that are positive for pesticide residues and participates on Pesticide Regulation and Evaluation Committee of DPR

USFWS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation internally and with other agencies • Support through statutory authority
ACOE	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating with other agencies and organizations • Support of the public
USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating internally and with other agencies • Insufficient resources • Other Comments: • Increase public outreach

TABLE 4.4D
State/Federal Finance Mechanism Effectiveness
Addressing Heavy Metals/Toxins in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating internally and with other organizations • Duplication of spending <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The CWA Grant program is well-coordinated with other state and local agencies but suffers from insufficient funds. • The State Revolving Fund program exhibits difficulties in coordinating and cooperating with other organizations but has sufficient resources to be effective. • The Underground Storage Tank Cleanup Fund is well-coordinated with other state and local agencies and has sufficient resources. • The Clean Water Act Grant Fund activities would be more effective if the process of making these federal funds available to local agencies and organizations could be expedited. • Effectiveness could be improved with more public outreach to build awareness of these funding programs and understanding of their application.
RWQCBs	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination with other organizations • Uniqueness of the program • Support through statutory authority • Support of the public <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • More effective if the process of making these federal funds available to local agencies and organizations could be expedited • Effectiveness could be improved with more public outreach to build awareness of these funding programs and understanding of their application.
DBW	<ul style="list-style-type: none"> • Administers the Pumpout Grant Program
DFG	<ul style="list-style-type: none"> • Implements spill prevention programs through the Oil Spill Prevention and Administrative Fund
DPR	<ul style="list-style-type: none"> • Finance mechanism has not been used in the Morro Bay watershed
DTSC	<ul style="list-style-type: none"> • Finance mechanism has not been used in the Morro Bay watershed

USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none">• Clear goals• Complementary programs• Good coordination/cooperation with other organizations• Uniqueness of the programs• Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none">• Insufficient resources• Lack of statutory authority <p><u>Other Comments:</u></p> <ul style="list-style-type: none">• To increase program effectiveness, information on available grants should be more accessible to the public, and the grant process should be expedited through automation.• Many of these finance mechanisms have not been used or considered in the Morro Bay watershed.
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TABLE 4.4E
Other State/Federal Non-Regulatory Programs Effectiveness
Addressing Heavy Metals/Toxins in the Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
RWQCBs Volunteer Monitoring	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complements the activities of the NEP, National Monitoring Program, and the Shellfish Technical Advisory Committee • Good coordination/cooperation with other organizations • Uniqueness of the program • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Not comprehensive • The program could be improved by increasing funds to support a volunteer coordinator, equipment purchases, data analysis, and lab costs.
Inactive Mine Study	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complements other programs • Good coordination with other organizations • Uniqueness of program • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Limited resources resulted in limited scope and duration
CCC	<ul style="list-style-type: none"> • Implements Boating Clean and Green Campaign, education/technical assistance program that addresses sources of heavy metals and or other toxins
DFG, OSPR	<ul style="list-style-type: none"> • Uses volunteer workers in response, containment, and restoration efforts for oil spills in marine water and funds research.
DHS	<ul style="list-style-type: none"> • Conducts epidemiological investigations for disease due to pesticide poisoning
DPR	<ul style="list-style-type: none"> • Promotes educational programs and sharing of monitoring information
USEPA	<ul style="list-style-type: none"> • In coordination with NOAA, provides management guidance to "Critical Coastal Areas" (those adjacent to impaired or threatened coastal waters) through its Coastal Nonpoint Pollution Control Program
USCG	<ul style="list-style-type: none"> • Implements Sea Partners Campaign, an educational outreach program which focuses on developing awareness of maritime pollution and compliance with environmental protection laws

4.5 EFFECTIVENESS ANALYSIS: PROGRAMS ADDRESSING FRESH WATER FLOW

TABLE 4.5A

**Local Program Effectiveness
Addressing Fresh Water Flow in Morro Bay Watershed**

Agency	Effectiveness Analysis
City of Morro Bay	<ul style="list-style-type: none"> • There are too few planning staff to ensure that fresh water issues are adequately addressed at CEQA level. • There are too few planning staff to adequately enforce GP/LCP policies and zoning ordinances related to fresh water flow issues. • City agencies coordinate well with each other through regular meetings. The city also coordinates well with Coastal Commission. • The City of Morro Bay's LCP has not been updated to incorporate all amendments that have been made since 1983. It should be recommended that funding and staff be made available to proceed with a complete update and provide a final document, which includes all amendments.
County of San Luis Obispo	<ul style="list-style-type: none"> • Some County agencies do not coordinate as effectively as they could with other agencies, such as the CCC.

TABLE 4.5B
State/Federal Regulatory Program Effectiveness
Addressing Fresh Water Flow in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals and responsibilities • Complementary programs • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating amongst the programs themselves, as well as with other organizations • Insufficient resources
RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating with other organizations and with dischargers <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The RWQCB does not have enough staff to inspect and ensure compliance with the NPDES Storm Water Discharge General Permit for Construction Activity. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More outreach to, and coordination with, local government agencies by regional board staff • Informational brochures to improve public support • Increased reliance on the NPDES Storm Water Discharge General Permit for Construction Activity as an effective tool to support local inspection efforts to make sure control of runoff during construction is appropriate and consistent with local and state permits.
CCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Good coordination/cooperation with local government staffs on LCP-related issues, and with other state and federal agencies in ensuring that issues related to grading and vegetation removal are addressed properly <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More outreach to local government agencies by CCC staff, including facilitating the implementation of regional watershed conservation measures and urban runoff programs that are consistent with the CNPCP as well as CWA Section 319 • Use permitting models such as the one NRCS uses in Elkhorn Slough where landowners go through NRCS, instead of four or more agencies, to obtain necessary approvals for implementation of conservation measures.
DFG	<ul style="list-style-type: none"> • Implements several regulatory mandates that address fresh water flow issues.

TABLE 4.5C
State/Federal Resource Management Program Effectiveness
Addressing Fresh Water Flow in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB/ RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear goals, responsibilities and procedures • Difficulties in coordinating/cooperating internally amongst programs and with other agencies • Insufficient resources • Lack of support from management
NPS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals and responsibilities • Good coordination with other internal activities such as the Watershed Management Initiative and with other organizations regarding NPS management issues • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear procedures to meet the goals • Insufficient resources • Lack of public support <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The public does not generally understand State authority to regulate NPS pollution, nor fully understands that many acceptable land use activities contribute to this type of pollution. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Develop incentives to implement NPS control measures such as streamlined permitting, financial and technical assistance to local agencies, increasing outreach to agriculture interest groups. • The State's NPS program would benefit from an upgrade, while the CNPCP is still in development.
SCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination/cooperation with other agencies and is actively involved with the Morro Bay Task Force and multi-agency steering committees • Support by the public and the Morro Bay Task Force <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The SCC has been exemplary in implementing resource management projects in the Morro Bay watershed. Its coordination with both government agencies and with public should be set as a model for future projects throughout the watershed.
DWR	<ul style="list-style-type: none"> • Administers and implements several resource management programs

NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination/cooperation with other organizations • Support from the public; this has allowed NRCS staff to integrate their efforts and participate in development of the CCMP. <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Program effectiveness could be improved with additional funds both to provide directly to landowners for installation of conservation practices and to support continuation of NRCS staff efforts at public education and technical assistance. • This program would also benefit by having access to geomorphology expertise to advise on restoration needs for Los Osos Creek. • NRCS would like to facilitate and promotes permit-streamlining efforts locally in order to remove permitting hurdles, which currently create a disincentive to local landowners for implementing conservation practices. Permit-streamlining pilot projects, currently being conducted in the Elkhorn Slough Watershed and initiated in the Salinas River Watershed, may be appropriate to transfer to the Morro Bay watershed.
USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementing other programs • Good coordination/cooperation with other organizations • Uniqueness of program • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • This program would benefit from improving the USEPA guidance to include assistance with clarifying roles and responsibilities, managing multiple fund sources and understanding agency liability.
NPS/ CZARA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/ cooperation with other organizations • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating with other USEPA programs (such as the NPDES Program and TMDL Program) • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • More efforts like the Clean Water Action Plan which promote increased collaboration and integrated approaches among all levels of government would be helpful to this program. • Revision of the 319 funding allocation formula to provide more funds to California

TABLE 4.5D
State/Federal Finance Mechanism Effectiveness
Addressing Fresh Water Flow in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority • Good coordination with other state and local agencies <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient funds • Difficulties in coordinating internally and with other organizations • Duplication of spending <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The Clean Water Act Grant Fund activities would be more effective by expediting the process of making the federal funds available to local agencies and organizations. • The State Revolving Fund program exhibits difficulties in coordinating and cooperating with other organizations but has sufficient resources to be effective.
RWQCBs	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complement other programs • Good coordination with other organizations • Uniqueness of the program • Support through statutory authority • Support of the public
SCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary with other programs and priorities • Good coordination/cooperation with other agencies and is actively involved with the Morro Bay task Force and multi-agency steering committees • Support by the public and the Morro Bay Task <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources
USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Support of the public <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The Clean Water Act § 319 funding to California is limited. The amount of these funds is expected to increase through the President's Clean Water Action Plan. • This program could be improved by making information on available grants and the process and requirements to receive the grant funds more accessible to the public. • The grant process would be better if it were automated and expedited.

TABLE 4.5E
Other State/Federal Non-Regulatory Programs Effectiveness
Addressing Fresh Water Flow in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
CA Nat'l Guard/Camp SLO	<ul style="list-style-type: none"> • Is developing an Integrated Natural Resources Management Plan to identify the status of existing natural resources
UC Coop. Extension	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Good coordination/cooperation with other organizations and internal programs • Support from the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Program effectiveness could be improved with greater outreach to the public so that more landowners could be taking advantage of the program
NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Good coordination/cooperation with other organizations and internal programs • Support from the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Program effectiveness could be improved with additional funds so that more landowners could receive education and assistance with conservation techniques • NRCS, via the Wetlands Reserve Program, secures easements and restoration cost-share agreements with landowners for wetlands. Areas of farmed wetlands and formerly converted cropland are the principal wetland types placed into the program by landowners. All lands accepted into the program are maintained according to a wetland restoration plan. This program has been used twice in the Morro Bay watershed- for the Chorro Flats Enhancement Project and the Los Osos Creek Wetland Reserve
USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating with other USEPA programs (such as the NEP, NPDES Program and TMDL Program) <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Better outreach and coordination with local agencies in the critical coastal areas

4.6 EFFECTIVENESS ANALYSIS: PROGRAMS ADDRESSING HABITAT LOSS

TABLE 4.6A
Local Program Effectiveness
Addressing Habitat Loss in Morro Bay Watershed

Agency	Effectiveness Analysis
City of Morro Bay	<ul style="list-style-type: none"> • Too few planning staff to ensure that habitat issues are adequately addressed at CEQA level • Policies/programs/ordinances generally effective. City currently administers ESHA and other habitat policies well. (At present, there is not a whole lot of activity that City gets involved in that has a direct effect on habitat. Moratorium on septic systems imposed by Regional Water Quality Control Board has limited new development within City borders). However, too few planning staff to adequately enforce GP/LCP policies and zoning ordinances. • The City's LCP has not been updated in over 15 years; amendments are placed in document at front of LCP as "LUP Errata". Only the General Plan incorporates new LCP amendments to date. • City agencies coordinate very well with each other through regular meetings. City also coordinates well with Coastal Commission.
County of San Luis Obispo	<ul style="list-style-type: none"> • Policies/programs appear to be inconsistently applied in areas that are mapped as an ESHA, but not always consistent. One notable problem is if an area is not mapped as an ESHA, protective policies may not apply. • Mapped ESHAs are based on the NWI which is not ground-truthed nor is it 100% complete as it is based solely on aerial photos. • The county does not have a map in the General Plan/LCP to identify the habitat areas of endangered/threatened species, such as the Morro Bay Kangaroo Rat. The Estero Plan does recommend that DFG identify these areas which would then be incorporated into the land use plan. • Implementation of policies is not always consistent with GP/LCP. • County agencies coordinate with other agencies, such as CCC

TABLE 4.6B
State/Federal Regulatory Program Effectiveness
Addressing Habitat Loss in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals and responsibilities • Complementary programs • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating amongst the programs themselves, as well as with other organizations • Insufficient resources
RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Difficulties in coordinating/cooperating with other organizations and with dischargers
CWA 401	<p><u>Problems:</u></p> <ul style="list-style-type: none"> • Inconsistent procedures • Difficulties in coordinating with other agencies, • Insufficient resources • Lack of support and understanding of local government agency representatives or project proponents <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The CWA 401 certification process provides the RWQCB with a tool to ensure projects include measures to protect water quality. • The RWQCB has insufficient resources to provide thorough review and comment on CEQA documents. <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • More outreach to and coordination with local government agencies by regional board staff • Informational brochures to improve public support and understanding • Increased reliance on the CWA 401 water quality certification process and CEQA document review to prevent habitat loss
CCC	<ul style="list-style-type: none"> • California Coastal Act of 1976 provides for several policies to protect, preserve, enhance and restore habitat.
DFG	<ul style="list-style-type: none"> • The Endangered Species Unit coordinates State agency consultation and issuance of take permits and management authorizations; issues Lake/Streambed Alteration Agreements; participates in CEQA either as a Lead or as a Responsible Agency

ACOE	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none">• Clear goals, responsibilities and procedures• Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none">• Duplicate efforts of other agencies such as those of DFG and the RWQCB• Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none">• Coordination/cooperation with other agencies and organizations and support of the public both vary with the specific project being reviewed or permitted. <p><u>Suggestions:</u></p> <ul style="list-style-type: none">• Implementation of watershed management plans, special area management plans, mitigation banks, in-lieu fee agreements, better communication and coordination and development of regional general permits
USFWS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none">• Clear goals, responsibilities and procedures• Complementary programs• Good coordination with other organizations• Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none">• Insufficient resources• Have special-interest (rather than general public) support <p><u>Suggestions:</u></p> <ul style="list-style-type: none">• Initiating area-wide habitat conservation planning to address all activities that impact endangered species in a large area• Increase habitat protection efforts and areas• Increase outreach to public to improve understanding of agency roles

TABLE 4.6C
State/Federal Resource Management Program Effectiveness
Addressing Habitat Loss in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB/ RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Complementary programs • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear goals, responsibilities and procedures • Difficulties in coordinating/cooperating internally amongst programs and with other agencies • Insufficient resources • Lack of support from management
NPS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals and responsibilities • Good coordination with other internal activities such as the Watershed Management Initiative • Good coordination with other organizations regarding nonpoint source management issues • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Unclear procedures to meet the goals • Insufficient resources • Lack of public support <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The public does not generally understand State authority to regulate nonpoint source pollution, nor fully understands that many acceptable land use activities contribute to this type of pollution <p><u>Suggestions:</u></p> <ul style="list-style-type: none"> • Develop incentives to implement nonpoint source control measures such as streamlined permitting, financial and technical assistance to local agencies, increasing outreach to agriculture interest groups • The State's NPS program would benefit from an upgrade, while the CNPCP is still in development
DFG	<ul style="list-style-type: none"> • Investigates areas to determine their suitability for wildlife production and preservation, authorizes and provides funding for land acquisition, development, and restoration projects, and manages Wildlife Areas, Ecological Reserves and other public lands throughout the state

SCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination with both government agencies and with public • Good coordination/cooperation with other agencies and is actively involved with the Morro Bay Task Force and multi-agency steering committees • Support by the public and the Morro Bay Task <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The SCC has been exemplary in implementing resource management projects in the Morro Bay Watershed.
NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear program goals • Complementary programs • Good coordination/cooperation with other organizations • Support from the public <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The Hydrologic Unit Area Project has been one of NRCS's most effective programs in the Morro Bay Watershed. • Program effectiveness could be improved with additional funds both to provide directly to landowners for installation of conservation practices and to support continuation of NRCS staff efforts at public education and technical assistance. • This program would also benefit by having access to geomorphology expertise to advise on restoration needs for Los Osos Creek. • Has allowed NRCS staff to integrate their efforts and participate in development of the CCMP • NRCS would like to facilitate and promotes permit-streamlining efforts locally in order to remove permitting hurdles, which currently create a disincentive to local landowners for implementing conservation practices. Permit-streamlining pilot projects, currently being conducted in the Elkhorn Slough Watershed and initiated in the Salinas River Watershed, may be appropriate to transfer to the Morro Bay Watershed.

USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • Program would benefit from improving the USEPA guidance to include assistance with clarifying roles and responsibilities, managing multiple fund sources and understanding agency liability.
NPS/ CZARA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination/cooperation with other organizations • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Lack of coordination with other USEPA programs (such as the NPDES Program and TMDL Program) • Insufficient resources <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • This program could be improved by better coordination amongst internal programs and revision of the 319 funding allocation formula to provide more funds to California. • More efforts like the Clean Water Action Plan which promote increased collaboration and integrated approaches among all levels of government would be helpful to this program.

TABLE 4.6D
State/Federal Finance Mechanism Effectiveness
Addressing Habitat Loss in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
SWRCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination with other state and local agencies • Support through statutory authority <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient funds <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The State Revolving Fund program exhibits difficulties in coordinating and cooperating with other organizations but has sufficient resources to be effective. • These finance mechanisms would be more effective if coordination internally and with other organizations were improved to clarify funding priorities within watersheds. This would avoid duplication of spending. The Clean Water Act Grant Fund activities would be more effective by expediting the process of making the federal funds available to local agencies and organizations.
RWQCB	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals, responsibilities and procedures • Complementary programs • Good coordination with other organizations • Uniqueness of the program • Support through statutory authority • Support of the public
DFG	<ul style="list-style-type: none"> • Administers funds for the acquisition, enhancement, restoration, or protection, of habitats
SCC	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals and procedures • Complementary programs • Good coordination/cooperation with other agencies • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources
NRCS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Support through statutory authority • Support of the public <p><u>Problems:</u></p> <ul style="list-style-type: none"> • Insufficient resources

USEPA	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complementary programs • Good coordination/cooperation with other organizations • Uniqueness of the program • Support of the public <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • The Clean Water Act § 319 funding to California is the most accessible funding source available for local projects but it is limited. The amount of these funds are expected to increase through the President's Clean Water Action Plan. This program could be improved by making information on available grants and the process and requirements to receive the grant funds more accessible to the public. Additionally, the grant process would be better if it were automated and expedited.
USFWS	<p><u>Successful Aspects:</u></p> <ul style="list-style-type: none"> • Clear goals • Complement other programs • Good coordination/ cooperation with other organizations <p><u>Other Comments:</u></p> <ul style="list-style-type: none"> • They are not being fully utilized in the watershed

TABLE 4.6E
Other State/Federal Non-Regulatory Programs Effectiveness
Addressing Habitat Loss in Morro Bay Watershed

Agency Functions/ Specific Program	Effectiveness Analysis
CCC	• Conservation Education Program provides materials to the public related to the protection and enhancement of the coastal and marine environment
DFG	• Implements educational programs

5.0 RECOMMENDED ACTIONS

This final section presents specific actions to improve effectiveness of the institutional framework based on the results of the effectiveness analysis. Analysis of how the existing institutional framework address the priority problems in the Morro Bay watershed reveal that although agencies at all levels of government are implementing exemplary programs, improvements in the institutional framework can be made. These actions address specific problems of a particular program or programs implemented by one or several agencies.

Specific actions to improve the institutional framework are presented in Table 5.1. As shown in Table 5-1, recommended actions are correlated with both the priority problems of the Morro Bay Watershed and with the Nonpoint Source (NPS) management measure categories identified in California's Management Measure Review Document (State Water Resources Control Board and California Coastal Commission, 1998).¹ Table 5.2 shows the management measure categories (numbered and bold headings) and management measures (letters). This categorization provides a useful method to organize and list actions recommended to improve the institutional framework for the Morro Bay National Estuary. Simultaneously, this approach tests the ability of the National Estuary Program requirements of this Base Programs Analysis to be consistent with the State's NPS Management strategy. Finally, this approach tests the applicability of watershed management pursuant to the 1998 Federal Clean Water Action Plan and the State's Watershed Management to recommended actions deemed necessary to protect the Morro Bay Watershed and Estuary. The integration and coordination of local programs and needs with State and federal programs should result in more technical and financial support to implement the recommended actions. This approach should also facilitate greater approval and acceptance of actions presented in the CCMP.

As determined, few new programs are necessary to improve the institutional framework. The analysis indicates that existing programs should focus on increasing financial resources, improving interagency coordination and improving public outreach.

Therefore, the recommended actions to improve effectiveness of state and federal agency programs include actions to:

- capitalize on existing state and federal finance mechanisms to provide more financial resources to local agencies and landowners;
- improve interagency coordination;
- increase public education and outreach;
- implement more comprehensive approaches for developing strategies to address priority problems;
- provide incentives for implementation of nonpoint source pollution control;
- and expand existing monitoring activities.

¹ The Management Measure Review Document is a part of the ongoing parallel efforts to upgrade the State's 1988 Nonpoint Source Management Plan and to implement the Coastal Nonpoint Pollution Control Program. Management Measure categories (i.e., agriculture, forestry, urban, marinas & recreational boating, hydromodification, and wetlands) and Management Measures are listed in Table 5-1.

TABLE 3.1 Recommended Actions to Improve the Institutional Framework

Actions	Implementing Agencies	Priority Problems						NPS MM Categories					
		Rapid Sedimentation	Bacteria	Nutrients	Heavy Metal/Other Toxins	Reduced Fresh Water Flow	Habitat Loss	Agriculture	Forestry	Urban	Marinas	Hydromodification	Wetlands
1. Create a permanent watershed committee to facilitate coordination among agencies and between agencies and the public (as appropriate, use an existing or former committee such as the NEP Watershed Committee or Morro Bay Taskforce). Types of responsibilities of this committee include: • Maintain/establish partnerships and shared approaches; • Consider CCMP actions in terms of groups of related actions and determine linkages and relevant priorities; • Assess cumulative impacts to the watershed; • Develop processes for strategic planning (including emerging issue assessment, buildout, and growth management); • Provide regular updates to other agencies, decision-makers, and the public on program activities (programs listed in the Institutional Inventory and potential programs) that address priority problems in the watershed; • Meet quarterly.	• NEP • Other agencies	✓	✓	✓	✓	✓	✓						
2. Develop a strategy to improve coordination of program actions/activities that address priority problems in the watershed. Key programs include: NEP CCMP; City/County permitting decisions and General Plan/LCP updates; RWQCB Basin Plan & Watershed Management Initiative (WMI); State Coastal Nonpoint Pollution Control Program (CNPCP); Federal Clean Water Action Plan (CWAP).	• NEP • Other agencies	✓	✓	✓	✓	✓	✓						

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
<p>3. Update existing planning documents such as: local government General Plans, Coastal Land Use Plans (e.g., the Estero Area Plan), Ordinances, maps, etc. Types of "updates" include 3.1 through 3.5.</p> <p>3.1 Adopt "model" LCP policies and ordinances that incorporate CNPCP management measures and effective Best Management Practices (BMPs) to address priority problems such as polluted runoff (specifically where policies or ordinances are lacking or do not effectively address the priority problems).</p>	<ul style="list-style-type: none"> • CMB • SLO Co. • CCC 	✓	✓	✓	✓	✓	✓						
<p>3.2 Develop and adopt a "Priority Problem Element" section for inclusion in the General Plans/LCPs (e.g., an appendix that lists individual policies and ordinances that address priority problems). This "Element" would direct planners and others to the GP/LCP policies, programs, and ordinances that address each priority problem in the watershed.</p>	<ul style="list-style-type: none"> • CMB • SLO Co. • CCC 	✓	✓	✓	✓	✓	✓			✓			
<p>3.3 Develop a process to coordinate updates of General Plans/LCPs with updates of/revisions to the RWQCB Basin Plan</p>	<ul style="list-style-type: none"> • CMB • SLO Co. • RWQCB • CCC 	✓	✓	✓	✓	✓	✓						
<p>3.4 Prepare a new Environmentally Sensitive Habitat Area (ESHA) map that is both based on the USFWS National Wetland Inventory and is verified by field surveys.</p>	<ul style="list-style-type: none"> • SLO Co. • CCC 						✓			✓			
<p>3.5 Develop and approve a policy for the SLO Co. LCP that allows the County to treat identified but unmapped sensitive habitat areas as ESHAs.</p>	<ul style="list-style-type: none"> • SLO Co. • CCC 						✓			✓			

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
4. Increase communication between local and State agency staffs and their respective decision-making bodies, so that permitting and planning decisions (a) take into account how the decision may affect the priority problems in the Morro Bay watershed and (b) are based on up-to-date information.	<ul style="list-style-type: none"> • CMB • SLO Co. • RWQCB • SWRCB • CCC • others 	✓	✓	✓	✓	✓	✓						
5. Adopt and use a revised Environmental Checklist (i.e., one that thoroughly evaluates natural resources and priority problems) when conducting a CEQA Initial Study of projects in the Morro Bay watershed	<ul style="list-style-type: none"> • CMB • SLO Co. • other CEQA lead agencies 	✓	✓	✓	✓	✓	✓			✓			
6. Improve review and comment by CEQA responsible agencies on CEQA documents prepared for projects proposed in sensitive areas and in areas identified as potential sources of priority problems.	<ul style="list-style-type: none"> • RWQCB • CCC • DFG • Other agencies 	✓	✓	✓	✓	✓	✓			✓			
7. Co-locate offices or desk space for agencies with offices outside the watershed to facilitate their meeting their estuary management responsibilities	<ul style="list-style-type: none"> • E.g., CCC with RWQCB • NEP 	✓	✓	✓	✓	✓	✓						
8. Develop, and require as necessary, standard permit conditions to prevent impacts to watershed resources.	<ul style="list-style-type: none"> • CMB • SLO Co. • CCC 	✓	✓	✓	✓	✓	✓			✓			

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories						
Actions		Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
9. Develop guidance for the preparation and staff review of project-specific plans (e.g., stormwater pollution prevention plans, erosion-control plans, landscaping plans, and nutrient management plans), specifically: • Guidance for landowners/project proponents to prepare plans pursuant to permit applications; • Guidance for staff to assist in the proper review of submitted plans; • Require and/or encourage the use of such plans.		• RWQCB • CCC • CMB • SLO Co.	✓	✓	✓	✓	✓	✓			✓			
10. Improve post-development monitoring, assessment, BMP maintenance, and enforcement. Examples of efforts include 11.1 through 11.5.		•												
10.1 Continue development of a watershed-wide water quality-monitoring plan (including the expansion of the volunteer monitoring program if feasible) and coordinate this plan with existing monitoring and assessment efforts for water quality instream flows and wetland and riparian habitat.		• NEP • RWQCB • CMB • SLO Co. • CCC • DFG • SLC	✓	✓	✓	✓	✓	✓			✓			
10.2 Train agency staffs in the watershed in the proper use of, and provide where feasible, tools such as digitized aerial photographs, mapping technology, and/or Geographic Information Systems (GISs). Training should include the ability to: (a) locate proposed project sites (by latitude-longitude or parcel) relative to watershed boundaries and critical areas; and (b) identify and track changes in land use/land cover and water quality resulting from development activities.		• NEP/EPA • CCC • CMB • SLO Co.					✓	✓			✓			

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
10.3 Track effectiveness of management practices implemented by permit conditions and voluntary efforts.	<ul style="list-style-type: none"> • CMB • SLO Co. • RWQCB • CCC • DFG 	✓	✓	✓	✓	✓	✓			✓			
10.4 Increase site visits and inspections in progress	<ul style="list-style-type: none"> • CMB • SLO Co. • RWQCB • CCC • DFG 	✓	✓	✓	✓	✓	✓			✓			
10.5 Improve staff-level coordination, internally and between departments, with agencies/departments responsible for maintenance, monitoring, and restoration. For example: <ul style="list-style-type: none"> • Coordination among CMB/SLO Co. departments (e.g., Planning and Building, Public Works) concerning sediment cleanup on roads, maintenance of storm drains, etc. • Coordination between local agencies, CCC, and RWQCB on land use/water quality issues. 	<ul style="list-style-type: none"> • NEP • CMB • SLO Co. • RWQCB • SWRCB • CCC • ACOE • NRCS • USEPA • Others 	✓	✓	✓	✓	✓	✓			✓			

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

			Priority Problem						NPS MM Categories					
Actions		Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
11. Convene workshops/trainings for local and State agency staffs and decision-makers, landowners, contractors, and others on erosion- and pollutant-control practices, practices to protect natural drainage patterns/stream courses and to maintain instream flows, proper BMP implementation and maintenance techniques, and how to assess these for effectiveness. Options include: 11.1 Hold refresher trainings on an annual basis. 11.2 Schedule runoff-control workshops/trainings prior to the rainy season (September-October) with follow-up assessments at the end of the rainy season (May-June).		<ul style="list-style-type: none">• NRCS• RWQCB• Coastal San Luis RCD• UC Coop. Extension	✓	✓	✓	✓	✓	✓			✓			
12. Create institutional arrangements to identify and link grants, loans, cost-share programs, and other funding sources with mandates for water quality and estuarine protection and enhancement (e.g., NEP funds, CWA § 319 funds, State Revolving Fund loans, DBW funds, NRCS EQIP funds, etc.).		<ul style="list-style-type: none">• NEP• RWQCB• Other agencies	✓	✓	✓	✓	✓	✓			✓			
13. Identify and seek funding to purchase areas where land acquisition or restoration would provide the best opportunity to address priority problems such as rapid sedimentation and freshwater flow reduction (e.g., steep hillsides, wetlands).		<ul style="list-style-type: none">• CMB• SLO Co.• SCC• NRCS	✓	✓	✓	✓	✓	✓					✓	✓

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
<p>14. Increase public awareness related to the Morro Bay watershed and the priority problems in the watershed. Use mailings, meetings, presentations at public forums, the Internet, etc.</p> <p>14.1 Provide educational materials describing items such as: the priority problems in the watershed, potential sources/causes, how watersheds work (e.g., the link between upstream discharges and Morro Bay), how individual/group actions affect watershed resources and uses, etc.</p> <p>14.2 Install signs on roads/highways to inform public that they have entered the Morro Bay watershed</p>	<ul style="list-style-type: none"> • NEP • others 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15. Consider National Marine Sanctuary (NMS) status for the Morro Bay since the estuary is flanked by other NMSs to the north (Monterey Bay NMS) and south (Channel Islands NMS).	<ul style="list-style-type: none"> • NEP • EPA • NOAA 												
16. Develop and use a streamlined permitting process where landowners work with a single agency (e.g., the NRCS) to install practices to control runoff and address the priority problems in the watershed. [For example, in a model program developed in the Elkhorn Slough watershed, the NRCS obtained all necessary approvals for the installation of agricultural runoff control and conservation practices from the RWQCB, CCC (federal consistency), Monterey County (permit waived pursuant to CCC federal consistency) and other agencies.]	<ul style="list-style-type: none"> • SLO Co. P&B Dept. • RWQCB • CCC • DFG • NRCS • others 	✓	✓	✓	✓	✓	✓	✓					

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
<p>17. Continue implementation of existing programs that facilitate use of BMPs for grazing management, alternate water supply, livestock access limitation, and vegetative stabilization.</p> <p>17.1 Expand Rangeland Management training courses to include State Management Measures developed pursuant to CWA § 319 and CZARA § 6217</p> <p>17.2 Expand programs to increase the types and locations of practices used.</p>	<ul style="list-style-type: none"> • SLO Co. Ag. Dept. • UC Coop. Ext. • RWQCB • NRCS 	✓	✓	✓	✓		✓	✓					
<p>18. Initiate a program, or integrate activities into existing programs, for implementation of nutrient management plans on lands with row crops by providing monitoring and assessment, education, and technical and financial assistance to land owners. Consider NRCS programs, Rangeland Water Quality courses, volunteer monitoring or other existing education and outreach efforts as potential programs to integrate nutrient management planning</p>	<ul style="list-style-type: none"> • NEP • SLO Co. Ag. Dept. • UC Coop. Ext. • RWQCB • CCC • NRCS 			✓				✓					

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
19. Use a combination of practices for irrigation water on row crops to maximize the water use efficiency of the irrigation system, minimize the amount of water that is discharged from the system, and improve the water quality of surface/subsurface return; e.g.,:	•					✓		✓					
<ul style="list-style-type: none"> • Schedule and manage the application of irrigation water; • Minimize to the extent possible irrigation water runoff from all irrigation systems except for surface irrigation, which will be recovered and reused with a tailwater recovery system; and • Eliminate unnecessary deep percolation (reduces the amount of pollutants entering surface and ground waters). 													
20. Develop and implement appropriate control program elements in the 1998 Model Urban Runoff Program (MURP) "How-to" Guide. (Control program elements include: Public Involvement/ Participation, Public Education and Outreach, Illicit Connection/Discharge Detection and Elimination Program, Municipal Operations, Construction Sites, Development/ Redevelopment Runoff Control, Commercial Facilities Runoff Control, Industrial Facilities Runoff Control.) Recommended actions within these control program elements include:	<ul style="list-style-type: none"> • CMB • SLO Co. • RWQCB • CCC • Consider Cuesta College and Camp San Luis Obispo 	✓	✓	✓	✓					✓			
20.1 Use the revised CEQA checklist included in the MURP "How-To" Guide.	• CMB & SLO Co. P&B Depts.	✓	✓	✓	✓	✓	✓			✓			

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

Actions		Implementing Agencies	Priority Problem						NPS MM Categories					
			Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
20.2 As part of a project plan (e.g., drainage and/or erosion control), require an analysis of the effect of the drainage water on receiving water quality and condition projects to minimize pollutants in runoff and discharged to receiving water.		•	✓	✓	✓	✓		✓			✓			
20.3 Apply actions listed above for runoff from developing areas for roads, highways and bridges projects.		• SLO Co. • CMB • CalTrans	✓	✓	✓	✓					✓			
21. Update the CMB and SLO Co. General Plans/LCPs to incorporate nutrient management practices for new developments such as commercial areas, residential areas, roads and highways and recreational areas (e.g., landscaped parks and golf courses).		•				✓					✓			
22. Seek funding to upgrade the City of Morro Bay storm drain system to include storm water quality features (e.g., to replace aging storm water drain pipelines, install silt/grease traps, and implement maintenance and monitoring programs to ensure effectiveness).		• NEP • CMB • Public Works	✓	✓	✓	✓					✓			
23. Facilitate approval and implementation of new wastewater treatment system by: 23.1 improving communication and coordination between SLO Co., RWQCB, and community; 23.2 seeking/acquiring funds to defray costs to residents; 23.3 increasing public understanding and awareness of water quality data, sources of pollution, impacts of pollution and need for controlling pollution.		• NEP • RWQCB • SLO Co. • CCC	✓	✓	✓						✓			

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
24. Facilitate creation of a septic tank maintenance district (interim for problem areas, long-term for areas not served by new treatment system). The district's responsibilities could include: 24.1 Regular inspection and maintenance of systems; 24.2 Development of contingency plans for dealing with leaks and failures and provide assistance securing funds for system replacement or upgrades; 24.3 Participation in monitoring or effluent tracing to assist in identifying problem areas or systems.	<ul style="list-style-type: none"> • SLO Co. • RWQCB • NEP 		✓	✓						✓			
25. Develop and implement contingency plans to avoid impacts from septic systems due to flooding and wet weather conditions. Plans may include interim disinfecting of surface and subsurface water prior to discharge to the Bay and dewatering of shallow groundwater areas or low lying areas prior to wet weather.	<ul style="list-style-type: none"> • SLO Co. • RWQCB • NEP 		✓	✓						✓			
26. Provide education and technical assistance to system owners about proper operation and maintenance of onsite disposal systems.	<ul style="list-style-type: none"> • SLO Co. • RWQCB • NEP 		✓	✓						✓			
27. Provide and maintain appropriate storage, transfer, and disposal facilities for chemical materials generated by maintenance, washing and cleaning of boats and associated facilities; distribute information and use signs to make sure users are aware of these facilities.	<ul style="list-style-type: none"> • NEP • CMB Harbor • SLO Co. • DBW • CIWMB 				✓						✓		

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

			Priority Problem						NPS MM Categories					
Actions		Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
32. Establish a hotline for reporting pollutant violations and pollutant sightings:		<ul style="list-style-type: none">• NEP• CMB• SLO Co.• RWQCB• DP&R• DFG• USCG		✓	✓	✓						✓		
33. Implement an interagency outreach/inspection program that increases the physical presence of agencies with pollution discharge violation enforcement authorities. 33.1 Coordinate schedules, authorities (jurisdictional overlap) and field practices (locations, photo-documentation, checklists) to minimize duplicative efforts. 33.2 Develop a joint inspection program to minimize the inspections any one agency has to make; use staff from each agency as “eyes” and spokespersons for the others. 33.3 Report any important field observations or potential violations to appropriate agency for follow-up action. 33.4 Consider and implement, if needed, a “No Discharge Area” designation for portions of the Bay outside the CMB’s jurisdiction 33.5 Increase enforcement of existing laws		<ul style="list-style-type: none">• CMB• SLO Co,• RWQCB• DP&R• DFG• SLC• USCG		✓	✓	✓						✓		

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
34. Evaluate CMB Harbor Dept. approach to permitting liveaboard vessels; implement mechanisms to increase staff or improve permitting efficiency at the City and County levels	<ul style="list-style-type: none"> • CMB Harbor • SLO Co. 		✓	✓	✓						✓		
35. Seek and secure funding sources for construction, renovation, operation, and maintenance of pumpout and dump stations, including mobile pumpout boats, through Pumpout Grant Program and other sources.	<ul style="list-style-type: none"> • NEP • DBW 		✓	✓							✓		
36. Notify boaters of location of new facilities explain procedures and encourage their use.	<ul style="list-style-type: none"> • CMB Harbor • NEP • USCG • USCG Auxiliary 		✓	✓	✓						✓		
37. Use good housekeeping practices at existing operation and maintenance and facilities to prevent spills, accidental or inappropriate exposure of chemicals and materials to runoff or directly to the bay; provide brochures and educational materials about appropriate practices to encourage implementation	<ul style="list-style-type: none"> • NEP • CMB Harbor • DBW • CCC • DP&R 		✓	✓	✓						✓		

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
38. Encourage the removal of boats from the water before conducting cleaning and maintenance activities. For boats that are in the water, perform:	<ul style="list-style-type: none"> • CMB • SLO Co. • DFG • DP&R 				✓						✓		
39. Develop a periodic waste collection and pickup program to transfer wastes collected at the harbors to appropriate county waste sites. Set dates for pickup events within the harbors contract with a certified waste hauler.	<ul style="list-style-type: none"> • CMB Harbor • SLO Co. Health Dept. • NEP • RWQCB • DTSC 		✓	✓	✓						✓		
40. Provide dispensers near dump stations with oil absorbent pads for boaters to remove small spills and small amounts of oil from bilge water (provide at low to no cost). Develop an effective means of properly disposing of spent pads as hazardous waste.	<ul style="list-style-type: none"> • DBW • CMB Harbor • CCC • RWQCB 				✓						✓		

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
41. Develop and encourage appropriate fish processing practices for commercial and sportsfishing by providing fish cleaning facilities, fish waste disposal restrictions, public outreach and education about impacts of improper disposal and methods of proper disposal.	<ul style="list-style-type: none"> • CMB • SLO Co. • DP&R • DFG • RWQC • CCC • DBW 		✓	✓							✓		
42. Evaluate general effects of proposed channelization and channel modification projects on instream flows and riparian areas. Evaluate these effects as part of watershed plans, land use plans, and new development plans. Incorporate or modify existing plans to accommodate the results of the evaluation.	<ul style="list-style-type: none"> • NEP • CMB • SLO Co. 	✓	✓	✓		✓	✓					✓	
43. Identify, evaluate and implement appropriate BMPs for use in the design of proposed projects or in the operation and maintenance program of existing projects. BMPs to consider include streambank protection, channel stabilization and flow restrictors, check dam systems, grade control structures, vegetative cover, instream sediment load control. Emphasize bioengineering and vegetative techniques. Methods of evaluation include habitat evaluations such as rapid bioassessment and Rosgen stream classification system.	<ul style="list-style-type: none"> • NEP • SLO Co. • CMB • RWQCB • Others 	✓	✓	✓		✓	✓					✓	
44. As part of a new development project plan (e.g., drainage and/or erosion control), require an analysis of the effect of the project on stream-banks or shoreline and condition projects to protect them (refer to MURP "How-to" Guide).	<ul style="list-style-type: none"> • CMB • SLO Co. • CalTrans 	✓					✓					✓	

Table 5.1 Recommended Actions to Improve the Institutional Framework (continued)

		Priority Problem						NPS MM Categories					
Actions	Implementing Agencies	Rap Sed	Bac	Nut	HM /T	Red Flw	Hab	Ag	For	Urb	Mar	Hyd	Wet
45. Identify streambank and shoreline areas in need of protection or restoration and evaluate and implement appropriate BMPs. BMPs to consider include streambank protection, channel stabilization and flow restrictors, check dam systems, grade control structures, vegetative cover, instream sediment load control. Emphasize bioengineering and vegetative techniques.	<ul style="list-style-type: none"> • NEP • SLO Co. • NRCS 	✓				✓	✓					✓	
46. Develop and implement a long-term management plan for Chorro Reservoir.	<ul style="list-style-type: none"> • SLO Co. 					✓	✓					✓	
47. Enforce existing plans, policies and regulations (and adopt and implement new ones, if necessary) that preserve wetlands, riparian areas and relate to maintenance of instream flows.	<ul style="list-style-type: none"> • CMB • SLO Co. 					✓	✓						✓
48. Identify wetland and riparian areas in need of protection or restoration and evaluate and implement appropriate BMPs. Emphasize bioengineering and vegetative techniques.	<ul style="list-style-type: none"> • NEP • SLO Co. • NRCS 					✓	✓						✓
49. RWQCB should consider issuing CWA § 401 certifications for projects in targeted sensitive areas.	<ul style="list-style-type: none"> • RWQCB 	✓	✓	✓	✓	✓	✓						

TABLE 5.2

Management Measures to Address Sources of Nonpoint Pollution in California

1.0 MANAGEMENT MEASURES FOR AGRICULTURAL SOURCES
A Erosion and Sediment Control
B Facility Wastewater and Runoff from Confined Animal Facilities (all units)
C Nutrient Management
D Pesticide Management
E Grazing Management
F Irrigation Water Management
G Education/Outreach
2.0 MANAGEMENT MEASURES FOR FORESTRY
A Preharvest Planning
B Streamside Management Areas
C Road Construction/Reconstruction
D Road Management
E Timber Harvesting
F Site Preparation and Forest Regeneration
G Fire Management
H Revegetation of Disturbed Areas
I Forest Chemical Management
J Wetlands Forest
K Education/Outreach
L Postharvest Evaluation
3.0 MANAGEMENT MEASURES FOR URBAN AREAS
3.1 Runoff from Developing Areas
A Watershed Protection
B Site Development
C New Development
3.2 Runoff from Construction Sites
A Construction Site Erosion and Sediment Control
B Construction Site Chemical Control
3.3 Runoff from Existing Development
A Existing Development
3.4 Onsite Disposal Systems
A New Onsite Disposal Systems
B Operating Onsite Disposal Systems
3.5 Transportation Development: Roads, Highways and Bridges
A Planning, Siting, and Developing Roads and Highways
B Bridges
C Construction Projects
D Construction Site Chemical Control
E Operation and Maintenance
F Road, Highway, and Bridge Runoff Systems
3.6 Education/Outreach
A Pollution Prevention/Education: General Sources

TABLE 5.2(Cont.)

Management Measures to Address Sources of Nonpoint Pollution in California

4.0 MANAGEMENT MEASURES FOR MARINAS & RECREATIONAL BOATING
4.1 Assessment, Siting and Design
A Water Quality Assessment
B Marina Flushing
C Habitat Assessment
D Shoreline Stabilization
E Storm Water Runoff
F Fuel Station Design
G Sewage Facilities
H Waste Management Facilities
4.2 Operation and Maintenance
A Solid Waste Control
B Fish Waste Control
C Liquid Material Control
D Petroleum Control
E Boat Cleaning and Maintenance
G Maintenance of Sewage Facilities
H Boat Operation
4.3 Education/Outreach
A Public Education
5.0 MANAGEMENT MEASURES FOR HYDROMODIFICATION
5.1 Channelization and Channel Modification
A Physical and Chemical Characteristics of Surface Waters
B Instream and Riparian Habitat Restoration
5.2 Dams
A Erosion and Sediment Control
B Chemical and Pollutant Control
5.3 Streambank and Shoreline Erosion
A Eroding Streambanks and Shorelines
5.4 Education/Outreach
A Pollution Prevention/Education
B Education/Assistance
6.0 MANAGEMENT MEASURES FOR WETLANDS, RIPARIAN AREAS, & VEGETATED TREATMENT SYSTEMS
A Protection of Wetlands and Riparian Areas
B Restoration of Wetlands and Riparian Areas
C Vegetated Treatment Systems
D Education/Outreach

6.0 REFERENCES AND PERSONS CONSULTED

6.1 REFERENCES

Management Measure Review Document, California Coastal Commission and State Water Resources Control Board, 1998

National Estuary Program Guidance, Base Programs Analysis, US EPA, 1993

National Estuary Program, The Nomination of Morro Bay, California Environmental Protection Agency, State Water Resources Control Board

6.2 PERSONS CONSULTED

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