

5.2.2 Circulation

The primary transportation emphasis of the Coastal Act is to preserve highway capacity for coastal access and coastal dependent land uses. Highway One bisects the Moss Landing Community Plan. It is a heavily impacted two line rural highway primarily carrying traffic between communities to the north in Santa Cruz County and communities to the south including Salinas and Monterey. In this context the plan encourages shows improvements to Highway One limits and recommends a reduction ~~in~~ the number access points from the highway to minimize hazardous and congested conditions, and encourages circulation and travel patterns that are not reliant upon Highway One for mobility. Needed parking facilities are also proposed. Bicycle and Pedestrian access is discussed in item E. below and in Section 5.4.

A. Highway One

Highway One will continue to be a two line rural highway, but some improvements are needed to improve capacity and facilitate access. ~~should be improved as a four lane divided scenic highway.~~ Access points to Highway One Access shall be consolidated and limited to Jetty Road, Dolan Road, Moss Landing Road and Potrero Road. At these locations some highway widening is encouraged for acceleration and deceleration when entering and exiting the highway.

B. County Roads

The County roads shown on the land use plan map are Jetty Road, Moss Landing, Dolan Road and Potrero Road. These are shown as two-lane roadways with ~~the access improvements to Highway One discussed above.~~ In order to minimize the access points to Highway One in the North Harbor area, a frontage road with a single access point should be developed to serve the yacht club and present and future commercial uses.

A connection is needed between the west side and east side of the highway. One way of accomplishing this is to install an overcrossing over Highway 1 so that local traffic is not required to enter the highway to cross from the east side to the west side of Highway One. The most feasible location for such an improvement is at the northern intersection of Highway One and Moss Landing Road. This could provide a connection to Dolan Road.

C. Sandholdt Bridge

The recently reconstructed Sandholdt Bridge is an important link between the coastal dependent uses on the Island and the rest of Moss Landing.

~~As part of the long-term expansion plan for the harbor, Sandholdt Road would be extended about 1,000 feet south of the Sandholdt Bridge on the west side of the Old Salinas River Channel by purchase of private property. The bridge would be removed. A new embankment crossing of the river would be constructed with access provided from Moss Landing Road, and from Sandholdt Road to the north just west of the existing bridge. These are shown as proposed circulation system improvements on Figure 2.~~

~~Should the planned harbor expansion into the Old Salinas River not be implemented, access to the spit will remain dependent upon the existing one lane Sandholdt Bridge, the maintenance of which is becoming an increasingly expensive problem. Replacement of the bridge would be even more expensive barring assistance from some federal program or some other outside source. The plan recognizes the economic problems of retaining a bridge at the existing location and further recognizes~~

~~that such pressures on public funding may eventually force abandonment of the bridge crossing. New access would then need to be provided to the Island, consistent with other LCP policies.~~

D. Parking Facilities

Locations for improved parking facilities are shown on Figure 4 for the North Harbor area. It is recommended that the improved parking area to be located between the Sand dunes and Bennett Slough at the curve of Jetty Road be limited to not more than 100 spaces. Consistent with access policies in Chapter 6, parking improvements shall be made only upon completion of more detailed management plans for the area by the State Department of Parks and Recreation. Care should be taken during development of parking at the Jetty Road curve, to avoid filling the Bennett Slough wetlands or disrupting wildlife and shorebird habitat.

The potential for parking improvements should be studied at "the opening" a popular parking area midway along Jetty Road where there are no longer any dunes remaining and where there is easy beach access.

Up to 150 improved parking space should be provided at the end of Jetty Road where there is ample area for a paved turnaround, or loop to assist circulation. When these improvements have been made it will be desirable to limit parking along the shoulder of the road.

Parking improvements are proposed for the South Harbor area. The existing Cal Trans Park and Ride facility is shown on the west side of Highway One near Dolan Road. Future parking is also shown at the South West corner of Moss Landing Road North and Highway One, and near the South intersection of Moss Landing Road and Highway One. General upgrading of the existing parking area at Salinas River State Beach is also needed.

E. Bicycle and Pedestrian Access

Access improvements to and along the Shoreline within the Moss Landing Community Plan area are described in Chapter 6 and are shown on Figure 6. Figure 3 and 4 provide additional illustration of existing and proposed access opportunities. The small scale of the central community area generally encourages walking. This will be enhanced by the installation of sidewalks, although the lack of sidewalks on Moss Landing Road or Sandholdt Road require caution on the part of pedestrians and drivers. It will be desirable to require sidewalks to be installed on Moss Landing Road as part of future development, because this will continue to be the primary focal point of visitor oriented commercial development. If in the future Sandholdt Bridge is replaced a pedestrian walkway should be provided separate from the roadway. Moss Landing Road and Sandholdt Road will be receiving sidewalks as part of the approved Storm water master plan being implemented for Moss Landing. Where sidewalks are not installed by this project, they should be required as part of the approval process for new development.

The Monterey Bay Sanctuary Bicycle Trail parallels Highway One north of Moss Landing Road, and follows Moss Landing Road through Moss Landing to Potrero Road. This bicycle trail alignment allows bicycle and pedestrian access between the North Harbor area and the remainder of Moss Landing without accessing Highway One.

F. Public Transit

Public transit stops are shown on the west side of Highway One near Dolan Road, and at the Jetty Road/Highway One and Potrero Road/Highway One intersections. Public transit is provided in the North County by Greyhound and Monterey-Salinas Transit, and a new route is planned between Watsonville and Salinas via Highway One. Commercial, recreational and industrial facilities are not currently served in Moss Landing. Designation of new stops and improved scheduling would provide better service to the beaches and to the island.

5.2.3 Wastewater Treatment

The California Coastal Act of 1976 sets criteria for expansion of urban areas and allocations of the capacities of public works facilities such as wastewater collection and treatment facilities.

The Moss Landing County Sanitation District was formed in response to the ban on installation of additional septic systems ordered by Monterey County and construction of wastewater collection lines and a main transport line from Moss Landing to Castroville are planned. The wastewater collection project will collect effluent from the residences and commercial establishments in Moss Landing and transport it to the Castroville wastewater treatment plant or the proposed regional plant in Marina. Collection service will include the Moss Landing Mobile Manor and the residential area along Struve Road in addition to the central Moss Landing Community. The industrial facilities of Kaiser and PG&E are not included in the service area. These facilities have adequate wastewater treatment and disposal systems. While all domestic wastewater would be collected in Moss Landing, aquaculture and fish processing industries would probably continue to discharge their processing wastewater in other manners.

The design capacity of the Moss Landing wastewater collection system is about 105,000 GPD average daily flow. The current amount of wastewater generated in Moss Landing that would be collected is estimated to be about 66,500 GPD. This leaves a potential remaining capacity of 38,500 GPD to serve all new uses. However, no capacity is presently available at the Castroville treatment facility to treat effluent from Moss Landing. A regional system is not yet functioning. Until the Castroville facility is expanded or the regional system begins operation, the wastewater collection system will not be able to begin operation. Further, the planned expansion of the Castroville treatment plant is sufficient to serve existing uses only. Additional treatment capacity for Moss Landing will not be available until the Castroville plant is expanded beyond proposed levels, or a regional facility with higher capacity is placed in operation.

Finally, the California Coastal Commission, in approving permits for the collection system, set conditions allocating capacity in the collection line based on the priorities of the Coastal Act. These priorities for wastewater service are as follows:

- a) Existing uses within the service area.
- b) Moss Landing State Beach, Salinas River State Beach.
- c) New or expanded coastal-dependent industries within the service area.
- d) New or expanded essential public services, basic industries or recreational uses excluding the Struve Road area, or minimum other uses on vacant parcels in the service area.

e) All other uses.

3. Harbor Facilities

This designation applies to the Harbor District office area, land south of the Sandholdt Bridge, and land in the North Harbor proposed for harbor support facilities. Facilities in the South Harbor adjacent to the new berths would Harbor District office area include the harbor office, a parking lot, restrooms, storage, showers, laundry facilities, an RV Park, dock space and staging areas. Other possible uses include If enough space exists, a harbor maintenance facility, charter service providers, and eating facilities. Unused lands near the Harbor District office would be used for additional dry storage, possible overnight parking, and the harbor maintenance facility if space constraints prohibit its development in the harbor support area south of the bridge. Public facilities in the North Harbor would include a boat launching ramp, additional dry storage areas, and restroom facilities for non-yacht club members. Public facilities south of Sandholdt bridge currently include dry storage, but this area could include future launching of small non-motorized craft and other harbor defined uses. Policies pertaining to harbor support facilities are contained in Section 5.3.

4. Plan Alternatives for South Harbor Area

It should be kept in mind that the future expansion of Moss Landing Harbor into the Old Salinas River Channel discussed in Section 5.3 is an important factor in determining the kinds of land uses that would be appropriate adjacent to the channel. Accordingly, properties on the west bank of the channel have been designated for Light Industrial use to support the harbor, and Harbor District property along the east side of the channel has been designated for parking and restrooms. The replacement of Sandholdt Bridge with a new crossing is also based upon future expansion of the Harbor into the Old Salinas River Channel.

If ultimately the Old Salinas River Channel is not used for harbor expansion then changes in the proposed circulation system and the land use plan will be needed. The new crossing over Old Salinas River Channel shown on Figure 2, would not be necessary, and would not be constructed. The existing circulation system that provides access to the Island via Sandholdt Bridge would be retained unless Sandholdt Bridge is too expensive to repair or reconstruct. In this case an alternative access route to the Island would need to be developed.

Land on the west bank of the channel, south of the Marine Lab and designated Light Industrial in order to support harbor expansion into the channel, would not be appropriate for Light Industrial use and would need to be changed to other designations. A combination of Resource Conservation and Scenic and Natural Resource Recreation may be most appropriate uses for the area and would be consistent with similar properties adjacent to the south. These are also considered appropriate interim uses for private beach properties until the South Harbor is expanded south of Sandholdt Bridge.

Any change in the Plan, however, concerning either harbor expansion, related land uses, or the circulation system can only be made through public hearings before the Monterey County Planning Commission and Board of Supervisors and with approval of the California Coastal Commission. The community, property owners, and affected agencies will participate in the process of revising the plan if this becomes necessary.

5.3 HARBOR COMMERCIAL FISHING & RECREATIONAL BOATING FACILITIES

The intent of the Coastal Act with regard to commercial fishing and recreational boating is that increased use of coastal waters for these purposes shall be encouraged. As a coastal dependent industry, commercial fishing facilities are given the highest priority for development on or near the coastline. Similarly, development of land-based facilities to support recreational boating is favored over non-water dependent land uses near the coastline. However, Section 30233 of The Coastal Act is specific concerning conditions under which the development or expansion of harbors can occur when it states: "The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes, shall be permitted . . . where there is no feasible less environmentally damaging alternative, and where feasible, mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities; (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps; (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game . . . for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided, however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, be greater than 25 percent of the total wetland area to be restored." Thus, the legislative intent is to allow reasonable expansion of commercial fishing and recreational boating facilities consistent with maximum preservation of sensitive natural resource areas and wetland habitats.

For the entire Moss Landing harbor, demand for commercial and recreational boat berths and related facilities far exceeds the available supply in the existing harbor area. ~~Even maximum expansion of the South Harbor would not entirely satisfy this demand.~~ Efforts to make optimal year round use of available berthing and support facilities particularly in the South Harbor are constrained by peaks created by the cyclical nature of the fishing industry upon which the planning process can have little effect.

Nonetheless, some of the physical constraints on maximizing the use of existing facilities can be addressed by land use planning and harbor management measures. In the South Harbor for example, the ability to intensify maritime ~~boat repair and fish processing~~ activities will be considerably improved when bulkheading work along the western shoreline of the south harbor is completed. Similarly, optimal processing of fish catches is limited by the lack of adequate unloading and work docks and the capacity of some fish handling facilities. When dredging work is completed, fish processing capabilities of certain docks will increase. The limited supply of dry storage areas and underutilization of other areas that could be used for dry storage is a further constraint on efficient use of existing facilities. Another problem constraining efficient use of available resources involves utilization of boat berthing space and slips by inactive or unseaworthy vessels. This limits potential for future use of space by vessels on the waiting list for berths in the South Harbor.

Other problems in the South Harbor include:

- Adequacy of boat launching ramps or hoists for sport fishing and recreational boats.
- Adequacy of boat fueling facilities.
- Compatibility of commercial fishing industry support requirements with the increasing demand for sport fishing and recreational boating berths and facilities.
- Adequacy of parking facilities, traffic conflicts and congestion on "the Island".
- ~~The one lane Sandholdt Bridge limits efficient access to and from the island.~~

~~In addition to these factors, Highway One capacity constraints and hazardous traffic conditions, as well as limited future sewer capacity, will have an effect on the degree to which commercial fishing support facilities and industries in the South Harbor can expand. It is expected that upgrading of existing uses can be accommodated by the proposed sewer pipeline facilities for Moss Landing. The proposed sewer facilities may not be able to support development of a new fish processing company or some other intensive water user. Private financing for sewer expansion may be possible.~~

~~The most significant opportunity for increasing the number of commercial boat berths is the eventual expansion of the South Harbor. The Moss Landing Harbor District, with assistance from the U.S. Army Corps of Engineers has studied a variety of alternatives for harbor expansion and has concluded the only financially feasible option is to extend the existing South Harbor approximately 1000 feet south of the Sandholdt Bridge in the Old Salinas River Channel. This will require removal of Sandholdt Bridge and the construction of a new crossing over the channel at the south end of the extended harbor, as shown on Figure 2. Extensive dredging will also be required in the wetlands of the Old Salinas River Channel. Before this work can be undertaken, the Coastal Act requires that the State Department of Fish and Game make the finding that the area is a degraded wetland. Considerable wetland restoration will be required to serve as mitigation for the use of the Old Salinas River Channel. The resolution of the environmental issues involved and successful expansion of the harbor will necessitate a cooperative effort by the Moss Landing Harbor District, the Department of Fish and Game, the U.S. Fish and Wildlife Service, the Corps of Engineers, and the California Coastal Commission.~~

The harbor district parcel south of Sandholdt Road has opportunities to provide public access in small unmotorized craft to the river channel, and sloughs. Future improvements could include: docks for small vessels, and facilities to launch small boats. In addition other improvements could include picnic facilities, pedestrian connections and other improvements to tie this location into the downtown, integrating the waterfront into the Moss Landing Community.

~~Constraints in the North Harbor include a lack of restroom facilities for non yacht club members; lack of a boat ramp and/or hoist for use by recreational boaters without berths; limited dry storage and parking areas; and uses of property for purposes that may conflict with recreational and visitor serving uses dependent on locations adjacent to the harbor. Bank erosion adjacent to the North Harbormaster Office, which has prevented maximum utilization of this area for harbor-related purposes. Expansion is limited ultimately by basin dimensions. However, when retaining walls are developed and dredging is completed along the shoreline, additional slips or other harbor support uses may be possible.~~

5.3.1 Key Policy

The County encourages the maximum development of maritime activities, commercial fishing and recreational boating facilities at Moss Landing; consistent with the conservation of the area's wetlands, dunes and other natural resources.

5.3.2 General Policies

1. Commercial fishing facilities shall be protected and, where feasible, upgraded. Commercial fishing shall have priority for berthing space in the South Harbor, and recreational boating facilities shall not interfere with the needs of the commercial fishing industry.
2. Optimum use of the existing harbor area and expansion of the harbor should be compatible with conservation of the most sensitive and viable wetlands.
3. Due to limited capacity of Highway One and Sandholdt Road, priority should be given on the island and on south harbor property to expansion of commercial fishing industries and facilities that generate low volumes of traffic. Some flexibility should be maintained for other development on the island that directly serves people engaged in those above industries and would not be suitably located in other areas of Moss Landing.
4. Use of existing land-based facilities that support commercial boating should not jeopardize the protection of public access to the shoreline.
5. Use of existing piers for access and recreational purposes should be encouraged when compatible with commercial fishing uses.

5.3.3 Specific Policies

The specific policies that follow ~~set forth a two phase harbor improvement program that stresses maximizing the use of existing~~ harbor facilities to accommodate maritime activities, commercial fishing, recreational boating and visitor serving accomodations while protecting environmentally sensitive habitats. ~~resources and restoring wetlands habitats before expansion occurs. Figure 3 illustrates the location of improvement measures discussed in the following policies.~~

Harbor Development – Phase I

1. Give priority to ~~Encourage~~ the conversion of underutilized or unused parcels on the island to land uses that are supportive of the commercial fishing industry and aquaculture require proximity to the harbor facilities.
2. ~~Legal remedies should be investigated to prevent berthing of unseaworthy boats in the harbor and abandonment of boats in dry storage areas.~~
23. Bulkheading to prevent erosion and to maximize use of available shoreline should be provided along the west bank of the South Harbor.
34. The capacity of dry dock storage areas should be increased when needed and new dry storage areas should be developed. Measures should be taken to ensure that grading and surfacing work performed to provide additional capacity will not adversely affect water quality in the harbor.
45. Maintaining a ~~Provision of an additional~~ boat fueling facility should be considered a priority.

~~6. The Sandholdt Pier should be considered for renovation as a fishing pier.~~

~~7. An additional boat launching ramp or hoist should be provided. A possible location would be in the North Harbor just south of the Elkhorn Yacht Club.~~

58. Maintain Develop a retaining wall or bulkhead along the eastern bank of the North Harbor adjacent to the Harbor Yacht Club offices as a means of preventing further erosion and improving berthing capacity.

69. On-site parking facilities shall be provided by private developers to satisfy demand generated by upgrading land uses on the island. Development of a public facility parking should be considered for a location near the north west end of the island.

740. Methods to improve tidal flow and sediment transport from the North Harbor as a means of improving capacity of the North Harbor to accommodate additional berthing facilities and minimize the need for dredging should be studied. One possible method would be expansion of the existing culvert under Jetty Road.

841. Priority shall be given to developing recreation and visitor-serving commercial uses in the North Harbor area and improving public recreational boating facilities.

942. Upgrading and development of recreational boating support facilities should not jeopardize conservation of sensitive mudflat habitats in the North Harbor.

~~13. Additional restroom facilities should be provided in the North Harbor area.~~

~~14. A comprehensive wetland restoration program shall be undertaken as mitigation for the expansion of the harbor area (phase 2) as required by Sections 30233 and 30411 of the Coastal Act. Designation of the wetland areas to be restored and the extent of restoration necessary, has not been determined by the affected agencies at the time of the certification of this plan. However, Bennett Slough, Moro Cojo Slough, and Old Salinas River are potential restoration areas. The State Department of Fish and Game, U. S. Fish and Wildlife Service, the Coastal Conservancy and the U. S. Army Corps of Engineers should be consulted and a habitat evaluation conducted, if necessary, to determine the measures required to implement this program. Mitigation measures might include such things as a new tide gate to control tidal flushing under Moss Landing Road, upstream Moro Cojo Slough flood control measures and widening of the Bennett Slough culvert. Completion of the wetland restoration program must be attained before harbor expansion in the Old Salinas River is allowed. Former wetlands that have been diked off from tidal influence but not filled should generally receive priority for restoration over diked and filled wetlands.~~

Harbor Development – Phase 2

~~15. After optimal use of existing facilities is made and the wetland restoration program is completed, expansion of the Harbor using the feasible least environmentally damaging alternative should be encouraged. Environmental impacts of harbor expansion must be mitigated to the maximum possible extent. All feasible road construction measures should be investigated to minimize damage to the sand dune habitat. Prior to extension of Sandholdt Road, a dune restoration~~

~~program should be developed in cooperation with appropriate agencies and property owners. This program should under take the restoration of degraded dunes adjacent to the extended road by replanting with native vegetation and the installation of fences or other means of controlling public access between the road and the dunes.~~

~~16. Additional land based harbor support facilities should be provided following any expansion of the harbor. Figure 2 designates the Harbor District property on the east side of the Old Salinas River Channel for the development of harbor support facilities that will include parking and restrooms. On the west bank of the channel Light Industrial development is proposed between Sandholdt Road and the bank.~~

Moss Landing Community Plan – Modification to Light Industrial Designation

Proposed Modification

1. Light Industry

~~(*The intent of this plan is~~ If such improvements are encouraged, Moss Landing should be able to maintain a reasonably strong commercial fishing base as well as other maritime activities on the Island.) Commercial fishing industries include canneries and fish processing companies, boat storage and repair facilities, marine supply stores, and other related facilities (i.e. fueling stations, private launching ramps, used boat sales businesses) located on the Island. ~~Consolidation and up grading of some of these enterprises is currently planned, and should contribute to improving the efficiency and site economies of existing facilities.~~ (*Sentence moved to above and modified) (**Sentence moved below and modified) Long-term economic uncertainties about commercial fishing make rapid future growth of the industry seem unlikely, but . ~~Because of this and because most facility modernization can be accommodated on-site, the land designated for Light Industrial use north of the Moss Landing Marine Lab is considered adequate to meet the needs of the commercial fishing industry until the harbor is expanded. At such time, there may be need for additional facilities to support the commercial fishing industry. An area of land between the extension of Sandholdt Road and the channel is shown on the plan map as "Light Industry" to provide for support facilities in the event that the Old Salinas River Channel is ultimately approved as the site for expansion of the harbor. The development of industrial uses in this area shall not take place until the harbor is extended into the Old Salinas River Channel. This extension must be made consistent with the provisions and requirements of section 5.3.~~

Moss Landing Community Plan – Modification to Light Industrial Designation

Maritime activities may include any number of uses including strong commercial and recreational boating base, and promote coastal dependent uses associated with emerging sustainable activities such as fishing, marine fabrication, repair, engineering, processing, and aquaculture.

Moss Landing has become a center for marine research, engineering and education. Facilities which support these uses such as laboratory space, warehouse, offices, shops, and off loading facilities, are encouraged, as coastal dependent uses in the light industrial land use designation.

(**The plan also recognizes an existing need for some limited commercial development of uses such as a fishermen's dormitory, ~~cafe~~, an eating establishment, etc., and flexibility in the plan is envisioned to allow these uses.)

~~Currently, several companies engaged in~~ Developmental and commercial aquaculture ~~base their operations on the Island and use the Elkhorn Slough as a propagation area. These companies have located their buildings, which house offices, laboratories, indoor growing tanks and other processing equipment,~~ are encouraged uses on the Island to allow for the use of coastal dependent resources to develop aquaculture concepts that could be exported to less physically constrained locations. ~~The plan encourages these uses by including them among the uses appropriate in the "Light Industry" designation applied to the Island.~~

Due to the continued erosion of the shoreline of the "Island" a comprehensive shoreline erosion plan for the area should be developed to protect existing and future development. This plan should be based on engineering studies that address the stabilization of the entire length of the Moss Landing spit shoreline from the Moss Landing Marine Lab to the South Jetty. It should involve the cooperation of property owners, the Moss Landing Harbor District, the County, the State, and other governmental bodies, in the planning, financing, and construction phases.

Attachment C

Heavy Industry

Edits are noted as follows; additions are designated in underline text and deletions are noted in strike-through text. Editing notes are in *italics*.

5.2 LAND USE, CIRCULATION, AND WASTE WATER TREATMENT

5.2.1 Land Use Proposals

The land use plan for the Moss Landing Community shown on Figure 2 illustrates the arrangement of land uses at the time when the community will be fully developed. The boundaries between land uses shown on the recommended plan are intended to be exact in most locations, particularly where land is developed now. In undeveloped or unsubdivided areas, boundaries are approximate.

A. Coastal Dependent Industry

The industries located in Moss Landing are generally dependent for their existence upon a location near the coastline, and as such are considered “coastal dependent”. These industries include commercial fishing, aquaculture, energy facilities and manufacturing activities. Coastal dependent industries are given priority by the Coastal Act over other land uses on or near the coast. The intent of this plan is that these coastal dependent industrial facilities shall be encouraged to expand within existing sites, and shall be allowed reasonable growth consistent with the protection of the area’s natural resources. If impacts to sensitive natural habitats cannot be avoided by future expansion of these facilities, then impacts must be mitigated to the maximum extent feasible. Policies that support this basic objective are contained in Sections 5.5 ~~and 5.7~~.

Edit Note: There is no section 5.7.

1. Light Industry

Edit Note: Only those sections related to heavy industry are address in this document.

Attachment C

Heavy Industry

2. Heavy Industry

a. Energy Facilities

There are two energy related facility within the Moss Landing Land Use Plan boundary designated as heavy industry. They are Moss Landing Power Plant (MLPP) and Moss Landing Switch Yard (MLSJ). These two facilities were formerly one facility owned and operated by Pacific Gas and Electric Company (PG&E). The former facility was divided to facilitate the California State mandated deregulation of the energy industry, which required the divestiture of a percentage of the utility owned power generation. Therefore, MLSJ was separated from MLPP and MLPP was sold and is now operated as an independent power producer. The power plant has had several ownership changes since the original sale.

MLPP is an energy generation facility that is bounded by Moss Landing Harbor to the west, Moss Landing Switch Yard to the north, agricultural land to the east and Dolan Road to the south. The facility consists of four units with a total capacity of 2,529 net megawatts. The facility burns natural gas, which is delivered by PG&E via underground pipelines. MLPP requires sea water, drawn from two intake areas in Moss Landing Harbor, for cooling. The cooling water is returned to the ocean via a single discharge system that runs under the harbor and “island” out into Monterey Bay. The facility no longer uses a cooling water discharge system that extended north into Elkhorn Slough. The marine terminal and fuel oil pipeline are in caretaker status since fuel oil is not currently used as fuel. The facility also owns property, non-contiguous, east of the facility along Dolan Road (formerly the east tank farm) that is not within the Moss Landing Land Use Plan boundary. The primary access for the facility is located on Dolan Road. Currently, limited egress is allowed onto Highway One for north bound only traffic. Emergency services access is allowed for all driveways.

Attachment C Heavy Industry

MLSY is the switch yard facility that connects the power plant with the regional and interstate power distribution system. It is owned and operated by PG&E. MLSY is bounded on the south by MLPP and on all other sides by agricultural land. Entry to and exit from the facility is located on Dolan Road.

~~The only existing energy production facility in the Moss Landing area is the PG&E thermal electric plant located on the south bank of the Elkhorn Slough and across Highway One from Moss Landing Harbor. This plant has two cooling water intake structures in the east branch of the harbor (outlet of Moro-Cojo Slough), with thermal discharges into Elkhorn Slough north of the plant, and the ocean west of the plant and beyond Moss Landing Island.~~

~~There are seven steam turbine units with a total capacity of about 2,113 Megawatts (MWe) at the PG&E Moss Landing Power Plant. Units 1-5 are fueled by either natural gas, or by fuel oil which is offloaded from tankers three fourths of a mile offshore, and employ six boilers for powering. Units 6 and 7, activated in 1968, have a gross capacity of 1,500 MWe and are similarly fueled and equipped.~~

~~An assessment of options for upgrading and expanding the PG&E power plant presented in the Background Report on Energy and Industrial Expansion Alternatives indicated that future plans for modernization of the plant can be accommodated on-site. Future use of coal or nuclear fuel is not likely and not recommended in the plan. Minor modifications of on-site parking facilities and circulation systems is a future possibility. Utilization of an additional transmission line easement is possible in the future, but should be discouraged in favor of using the existing transmission corridor due to undesirable impacts to agricultural operations and to the scenic beauty of the area. Recommended policies for upgrading energy facilities and minor on-site land use and circulation changes consistent with the preservation of adjacent wetlands habitats and sensitive natural resources are presented in Section 5.7.~~

b. Manufacturing Industry

Attachment C Heavy Industry

The major existing manufacturing ~~industry site~~ is Moss Landing Industrial Park (MLIP) formerly the Kaiser Refractories facility, located south of ~~PG&E off Dolan Road, and~~ east of Moss Landing Harbor and bounded to the south by Moro Cojo Slough and to the east by agricultural land and wetland Highway One. The ~~Moss Landing plants Kaiser facility produced~~ magnesia and refractory brick, using as raw material sea water from the ocean and dolomite from the Natividad Quarry near Salinas, thirteen miles away. The refractory brick production is was a coastal related industry while magnesia production is was coastal-dependent.

The magnesia facility has been demolished to enable redevelopment of the property to support a diverse mix of coastal dependent and coastal related industries, such as fish processing, aquaculture, energy facilities and manufacturing. The facility maintains its sea water intake facility, located in the Harbor, and a sea water return via a single discharge system that runs under the harbor and “island” out into Monterey Bay.

The refractory facility has been renovated to utilize existing structures for a diverse mix of coastal related and coastal dependent industry and warehouse facilities. Entry to and exit from the facility is located on Dolan Road.

~~As with the PG&E facility, major changes in the next twenty years at Kaiser can be accommodated on site. A primary option available to Kaiser is the replacement of the present gas and fuel oil as furnace fuels by refinery coke. In addition, increased pressurized filtering of products before firing would remove further water and decrease the fuel requirement per pound of finished product. On site circulation system and land use changes are planned, and primary access from Highway One will be closed and shifted to Dolan Road. Major changes in primary access to PG&E and Kaiser shall be approved only upon the condition that comprehensive landscaping programs are completed around the perimeter of all properties fronting the public roads. Policy recommendations for the modernization proposals are presented in Section 5.7~~

5.5 ENERGY FACILITIES AND INDUSTRIAL DEVELOPMENT

Coastal dependent industries are given priority by the Coastal Act over other developments on or near the coastline. ~~MLPP, MLSY and MLIP PG&E and the Kaiser facilities~~ may expand within their existing sites in accordance with local air pollution control regulations and if consistent with the preservation of natural resources and sensitive wetland habitats. Special protection against the spillage of crude oil, gas, petroleum products, or other hazardous substances ~~related to~~ from coastal dependent facilities must also be provided.

~~Reasonable options for upgrading and modernizing energy production and industrial facilities at PG&E and Kaiser Refractories, will not involve construction of off-site facilities. Future changes may include installation of 135 employee parking spaces just north of the main administration building, and closing the main entrance gate on Highway One and channeling all traffic to the access gate on Dolan Road. Modernization plans for Kaiser call for relocation of the main point of access to and from the plant off Highway One to Dolan Road. Administration buildings and truck shipping/receiving areas will be relocated to this area, and construction of additional process waste storage ponds is anticipated.~~

If MLPP PG&E marine terminal expansion occurs, some short-term construction-related impacts to Moss Landing State Beach and potential longer term impacts from construction of terminal support facilities could occur.

~~Conversion of the PG&E plant to alternative technologies such as coal, nuclear, or biomass fuels is highly unlikely. However, the California Energy Commission has identified this site as a potential site for a 500 Megawatt coal fire power plant. Use of natural gas and oil will continue as the main fuel source for the plant. Kaiser has recently requested that gas and fuel oil be replaced by refinery coke as furnace fuels. This will result in increased particulate sulfur dioxide and nitrogen oxide emissions.~~

Entrainment and impingement will continue to be quantified and reported by MLPP as required by Federal and State regulation.

Attachment C Heavy Industry

~~Entrainment and impingement impacts to marine organisms in general are currently generated by the PG&E power plant cooling system. Based on analysis contained in PG&E's reports to the Regional Water Quality Control Board, these impacts by the cooling system are considered insignificant in terms of overall effect on the phytoplankton community in the Moss Landing vicinity. However, the results of studies currently being prepared for EPA will provide additional detail and analyses of impingement and entrainment impacts.~~

~~Increased power generation from the older existing steam turbine units 1-5 at PG&E, through replacement of boilers with higher efficiency turbine units, for higher temperature and pressure steam operation, would increase the rate of fuel consumption and therefore of uncontrolled emissions of sulfur oxides and nitrogen oxides. Although there are no firm plans for construction of additional units at PG&E, if future gas turbine units were added in a combined cycle configuration, the resultant higher utilization rates for units 1-5 would be associated with increased entrainment and impingement of organisms for Moss Landing Harbor and increased thermal discharge to Elkhorn Slough.~~

~~If the sale of OCS Leases occurs in the future, the risk of oil spills and their attendant biological impacts to Monterey Bay will increase, and some growth inducement related to onshore support facilities and crews may occur in Monterey County. OCS Leases in the Santa Cruz basin will have the potential to create significant adverse air quality impacts.~~

~~Opportunities to use waste heat for residential heating purposes in Moss Landing are limited. The two major potential uses are for fish and shellfish processing and for the processing at Kaiser Refractories. Short run costs of developing insulated waste heat lines from PG&E to Kaiser or the fish processing plants may be prohibitive; however, long term costs of this alternative versus heat generation from other energy sources should also be considered.~~

The facilities operating in the Moss Landing heavy industrial area are encouraged to make available and utilize by-products such as waste heat, water, exhaust gas, or other resources from industrial processes. The goal is to minimize industrial discharges of by-products while taking advantage of

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efficiencies provided by the reuse of resources. Priority is given to coastal dependent and related uses, which either provide or reuse resources.

Federal, State or County regulations may be enacted that mandate modifications to existing facilities in order to protect the environment or public safety. The expeditious processing and, if compliant with environmental and other requirements, approval of permit applications submitted in a timely manner should be given priority.

5.5.1 Key Policy

Existing coastal dependent industries in Moss Landing have local, regional, statewide and, in some cases, national significance. Accordingly, the county shall encourage maximum use and efficiency of these facilities, and to allow for their reasonable long-term growth consistent with maintaining the environmental quality and character of the Moss Landing Community and its natural resources.

5.5.2 General Policies

1. Coastal dependent industrial facilities should be encouraged to expand within existing sites ~~before off-site expansion is considered~~. Commercial fishing activities and aquaculture shall have priority over other types of coastal dependent industrial uses in Industrial areas. ~~The Kaiser industrial facility~~ MLIP at Moss Landing should be permitted to expand within the existing site subject to conforming to all other requirements of this plan, and other State and Federal regulations.
2. Future expansion, improvement or other development at heavy industrial facilities within the Moss Landing Community Plan boundary shall be considered in accordance with the General Development Plans required for these facilities by Title 20, Chapter 28 of the Monterey County Coastal Implementation Plan, Part 1 Zoning Ordinance. ~~including fuels conversions at P.G.&E. or Kaiser Refractories, and any other heavy industry in the area shall be~~

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~~considered in accordance with master plans for these facilities. This master plan requirement shall not apply to emergency or administratively approved developments under section 30624 of the Coastal Act. The master plans shall be developed by the respective industries and submitted to Monterey County for review and approval prior to approval by the County of any required permits for these industries. The master plans shall address the long range development and operation of the facilities including physical expansion and new construction, major operational changes, changes in fuels or fuel delivery systems, circulation or transportation improvements, electrical power transmission, alternative development opportunities, environmental considerations, potential mitigation of adverse environmental impacts and conformance to all other policies of the North county LCP and other State and Federal regulations. Subsequent to approval of these master plans, permit requests not in conformity with the master plans shall be considered only upon completion and approval of necessary amendments to the master plan.~~

This general policy shall not be construed to require disclosure in the General Development Plans master plans of trade secrets, proprietary or confidential information, but only location of buildings and other land use matters necessary for planning purposes.

3. The least environmentally damaging alternative should be selected for on-site modernization and upgrading of existing facilities. When selection of the least environmentally damaging alternative is not possible for technical reasons, adverse environmental effects of the preferred alternative shall be mitigated ~~to the maximum extent.~~
4. Modernization and expansion of industrial facilities shall be compatible with existing community land use patterns and circulation system capacities, planning objectives, and local air quality regulations in effect at the time of the granting of such approval for said expansion by the appropriate agencies.
5. Potentially hazardous industrial development shall not be located adjacent to developed areas. Residential development shall not be located adjacent to sites designated heavy industrial.

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6. Any nuclear plants shall avoid disruption of environmentally sensitive habitats and shall avoid seismic hazard areas.
7. Conversion of heavy industries to coal technologies ~~should be~~ is highly discouraged. Use of coal as a fuel should be considered only if other cleaner fuels become unavailable, and there are no resultant adverse impacts on agriculture and fishing. Should this occur, the most effective air pollution control technology available shall be utilized to ensure minimum sulfur dioxide.
- 8.7 To ~~reduce~~ minimize traffic hazards, along Highway One access for to sites designated heavy industrial east of Highway One PG&E and Kaiser should will be prohibited ~~eliminated~~ except in for emergency services. Limited egress is allowed from MLPP onto Highway One for north bound only traffic. Major access for each facility should be maintained ~~developed~~ on Dolan Road. ~~This may require improvements to Dolan Road and Highway One.~~
- 9.8 ~~The responsible government agencies shall periodically examine the effectiveness of PG&E's oil spill contingency clean up plans for both on shore and off shore areas. In the event that the offshore tanker terminal is reactivated the facility shall have best available control technology (BACT) and an oil spill contingency plan for onshore and offshore areas. One condition of possible future expansion of offshore tanker terminal mooring facilities should be the demonstrated effectiveness of oil spill contingency plans to minimize the environmental effects of oil spills to the maximum extent feasible. Maximum protection of Elkhorn Slough must be provided.~~
- 10.9 The development of mariculture using existing warm water discharge should be encouraged.
- 11.40 All new heavy industry shall be coastal dependent and coastal related.
- 12.44 Due to sensitive agricultural, fishing, recreational and environmental resources in the proximity of Moss Landing, additional development

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of polluting heavy industry shall not be permitted unless all adverse effects on these resources are fully mitigated.

5.5.3 Specific Policies

1. Due to sensitive agricultural and environmental resources in proximity of the ~~PG&E and Kaiser plants~~ heavy industry facilities, which could be damaged by coal conversion, the ~~plant~~ facilities should continue operation with the use of natural gas and oil fuels.
2. ~~Methods should continue to be studied for improving efficiency and air emission controls at the PG&E and Kaiser plants by both the County and MBUAPCD.~~ Heavy industry shall obtain air pollution control permits from the Monterey Bay Unified Air Pollution Control District. The air permits shall require best available control technology (BACT) or best available retrofit control technology (BARCT).
3. ~~In the event of future upgrading or modification of P G & E generating units 1-5, consideration should be given to continuing the cooling water discharge outfall for these units into the slough at their historical discharge rate. If the discharge rate is to be increased, environmental studies should be undertaken to determine the effect.~~ Use by heavy industry of the deactivated or construction of new cooling water discharge outfalls in Elkhorn Slough shall not be permitted.
4. Additional ~~Kaiser~~ MLIP process storage ponds shall be limited to the area shown on Figure 5 and designed and located to avoid any adverse effects to wetland areas and agriculture. All feasible alternatives shall be examined to prevent loss of wetlands.
5. In the event that conversion of the ~~PG&E power plant~~ MLPP to a coal burning facility is necessary, effective BACT will be required ~~mitigation measures~~ to minimize adverse effects to air quality, public safety, agriculture, and ~~aquaculture~~ aquaculture shall be required. A safe disposal site for coal ash and collected air pollutants shall be located away from ~~inhabited~~ residential areas and sensitive

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- resources. ~~Methods to reduce potentially significant environmental effects from runoff to an acceptable level shall be incorporated into the power plant and disposal site design.~~
6. Due to potential hazards related to geological conditions, proximity to populated areas, land use conflicts, and possible impacts on marine and estuarine environments, Moss Landing ~~the PG&E site south of Potrero Road~~ should not be considered a suitable location for future development of a nuclear power plant facility.
 7. ~~An atmospheric surveillance station shall be established in the Moss Landing vicinity by the Monterey Bay Unified Air Pollution Control District or the County of Monterey to monitor air pollution concentrations in addition to pertinent meteorological parameters. The Monterey Bay Unified Air Pollution Control District should determine the need for an air monitoring station located at Moss Landing. The Air District should determine the method of establishment and maintenance of an air monitoring station, if needed, based on the sources of pollutants monitored.~~
 8. ~~As a condition of issuance of development permits, to industries with significant emissions, the County of Monterey shall require that an atmospheric surveillance station be established in the Moss Landing vicinity. This station should thereafter be operated by the MBUAPCD to monitor air pollution concentrations in addition to pertinent meteorological studies.~~
 - 8.9 Further expansion of heavy industrial uses ~~on the property owned by PG&E~~ west of Highway One and east of the Moss Landing Harbor shall be limited to improvements or modifications that are compatible with the road right-of-way and visual policies of the plan.
 - 9.10 Possible future development of a transmission line north from the ~~PG&E power plant~~ MLSY shall be shown to be compatible with research and educational use of the estuarine sanctuary, and potential environmental effects shall be reduced to an acceptable level before development is allowed.

Moss Landing Community Plan
Draft
Infrastructure Policy Recommendations
December 4, 2008 (Carl's Edits 12/28/08)

Traffic and Circulation

Overview:

Moss Landing includes three areas that are connected solely by Highway One:

- 1) South Harbor - Downtown, Island, Heights
- 2) North Harbor
- 3) Industrial – Power plant, refractory site

Access to Moss Landing is critical for the economic viability for this Community, but Moss Landing cannot fix regional traffic problems individually. Highway One is part of a Corridor System Management Plan developed by the State that generally extends from Salinas Road to Castroville. The purpose of corridor management is to identify and evaluate intersections or segments of all roadways (including County Roads) that impact the surrounding area in order to maximize benefits with minimal projects. Improvement to Highway 1 in Moss Landing must balance local and regional needs as well as minimizing impacts to resources like Elkhorn Slough and agricultural lands.

Policies:

1. The Moss Landing Community Plan recognizes ~~the need for a grade separated crossing of Highway 1 as a major circulation component for to improve local circulation and provide connectivity to the Community and region. across Highway 1~~ It is recommended that Monterey County champion the process to initiate a Project Study Report (PSR) with Caltrans and TAMC to identify and evaluate the feasibility of a grade separation in this area. Monterey County, in conjunction with Caltrans and TAMC shall develop strategies as part of a Corridor System Management Plan to create safe movement of vehicles, bicycles and pedestrians. Success criteria shall include, but Is not limited to:

- Resource Impacts (wetlands, farmlands, etc.)
- Safety Need
- Reduce Congestion
- Community Acceptance (local and regional)
- Fundability
- Total overall delay at node
- Possible Alternative Routes

2. To promote safety and improved circulation, study the feasibility to:

- Change of Intersections (e.g. consolidate or realign access to Highway 1 at Potrero Road and Moss Landing Road.
- Install a Signal at Dolan Road
- Grade Separated over/under pass
- Traffic Controls (e.g. limited turning movements)

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~~3. Limiting the number of driveways on along Highway 1 can improve operations. Support where possible consolidating multiple driveways that exist on a parcel.~~

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~~4.3. Direct Where access of an individual property to Highway 1 shall be prohibited unless no other alternative is available. Where there is no alternative is permitted by a driveway or street intersection, Monterey County shall should initiate a study to determine the feasibility of consolidating access with multiple properties and/or adding acceleration and deceleration lanes.~~

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~~4. In order to minimize traffic congestion, trip reduction measures should be incorporated into all existing and proposed commercial, educational, and industrial development. Measures shall include, but are not limited to:~~

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- ~~- Hours of Operation~~
- ~~- Carpools~~
- ~~- Ridesharing~~

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~~With the exception of S smaller smaller businesses and organizations who are shall be encouraged to participate with other business and organizations to increase the efficiencies of the trip reduction measures. Except as stated herein, trip reduction measures shall be prepared in accordance with Zoning Ordinance Section 20.64.250.~~

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~~6.5. To improve circulation efficiency, the pavement sections of on local streets should include a well maintained pavement section with curb, gutter and sidewalk for all modes of transportation (vehicles, bicycles, pedestrians).~~

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~~6. Improvements to Highway 1 shall be consistent with the scenic character of the highway and preserve views of the coastline to the greatest extent feasible.~~

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~~7. The County shall collaborate with other jurisdictions and agencies to identify safety hazards and to develop solutions for Highway 1~~

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Other Potential Policies

~~A. Future capacity improvements to Highway 1 shall be consistent with the scenic character of the highway~~

~~B. The County shall collaborate with other jurisdictions and agencies to identify safety hazards and to develop safety solutions for Highway 1.~~