

CHAPTER 10: ENERGY AND INDUSTRIAL DEVELOPMENT

A. Policy Framework

Coastal Act. Notwithstanding the fact that coastal-dependent industrial developments may have significant impacts on coastal resources, the Coastal Act provides for the siting and development of coastal dependent industrial uses, including energy related uses, to ensure that inland as well as coastal resources are preserved while ensuring orderly economic development within the state.¹ Coastal-dependent developments are those which require a site on, or adjacent to the sea to be able to function at all. Coastal-dependent industrial developments are given priority in the Coastal Act over other land uses, except agriculture, and are permitted reasonable long-term growth where consistent with Chapter 3 policies. These developments are encouraged to locate and expand within existing sites.² Location and expansion beyond an existing site are permitted only if alternative locations are infeasible or more environmentally damaging, to do otherwise would adversely affect the public welfare and adverse impacts are mitigated to the maximum extent feasible.

Coastal Act section 30262 requires consolidation of oil and gas facilities to the maximum extent feasible and legally permissible unless (a) consolidation will result in adverse environmental consequences and (b) it will not significantly reduce the number of wells, support facilities or sites required to produce the reservoir economically and with minimal environmental impacts. New industrial development is required to be located within or contiguous existing developed areas able to accommodate it except that new hazardous industrial development is required to be located away from existing developed areas where feasible. Policies require protection against spillage of oil, gas, petroleum products and other hazardous materials. Coastal Act policies include specific criteria for siting new or expanded refineries or petrochemical facilities and thermal electric generating plants.

Local Coastal Program. The LCP contains policies very similar to Coastal Act policies regarding oil and gas development, power plants, coastal-dependent uses, and other development in the coastal zone. The LCP gives priority to coastal-dependent and coastal-dependent industrial uses over other uses in the coastal zone, and consolidation of sites and facilities where feasible is required. The CZLUO identifies categories of uses for particular areas in the County, including industrial, industrial special use, resource extraction, communication, pipeline and transmission lines, public utilities, and electric generating plants. These use designations are termed 'overlays' on LCP maps.

The SLO Estero Area Plan regulates development on industrial land at Toro Creek, particularly the Estero Marine Terminal. The proposed revised Estero Bay plan addresses the need for improving coastal access in the area of the Marine Terminal, as well as issues related to Marine

¹ PRC Sections 30001.2; 30263-30264, 30413, 30232, 30250, 30222, 30233 (a) (1), 30235, and 30254

² PRC Sections 30255, 30260, 30262, and 30263

Terminal site restoration and environmental mitigation. The San Luis Bay Area Plan designates existing and planned industrial areas, including the Diablo Canyon area, Avila Beach, and Port San Luis. The South County Area Plan regulates the Santa Maria oil refinery and chemical plant and Guadalupe Dunes oil field. The North Coast area does not have any significant energy or industrial facilities, but such development is unlikely in the area, so the proposed revised plan does not address this type of development.

In April 2000, SLO County adopted Ordinance 2899 to provide a framework for allowing telecommunications projects within public rights of way, affecting primarily only land-based fiber optic cable projects. The Ordinance includes conditions of use of streets and public rights-of-ways, construction standards, permitting and licensing, and a framework for the establishment of compensatory fees for use of public rights-of-way and property.

B. Background.

Most energy and industrial facilities in SLO County are within the coastal zone, and include both coastal dependent and industrial uses, as well as resource-dependent facilities. Two major facilities are located in the South County: the Santa Maria Unocal refinery and the Santa Maria Chemical Plant operated by the Union Chemicals Division Carbon Group. Also located in the South County is the Guadalupe Oil Field, formerly operated by Unocal, which stopped production in 1994 and is in the process of being fully abandoned. The former Guadalupe oilfield is the site of underground contamination and will require remediation and monitoring.

The other major existing industrial and energy-related developments are located in Estero Bay and Avila Beach. These include the Chevron USA, Inc. offshore tanker-terminal for the loading of crude oil (which is currently being decommissioned) and onshore storage tanks in Estero Bay, as well as Texaco and U.S. Navy storage tanks. Pacific Gas and Electric Company (PG&E) operates a nuclear power facility in Diablo Canyon, and Duke Energy operates a major fossil-fuel power plant (formerly owned by PG&E) located within the city of Morro Bay. Unocal owns a tanker terminal at Avila Pier which is no longer in operation. The storage tanks at Avila have been removed and it is in the process of clean-up. Other extractive industries in the coastal zone include removal of sand from the dunes near Oceano and gravel from the Santa Maria riverbed.

There is an extensive network of oil and gas transmission pipelines throughout the county's coastal zone. One of the major pipeline corridors extends from the Santa Maria Refinery through Tosco's pipeline system to their refinery in San Francisco.. The California Public Utilities Commission and California Energy Commission are responsible for regulation of electric transmission lines.

Many energy-related facilities have been modified or closed since certification of the Local Coastal Program. While the power plant at Morro Bay has been purchased by Duke Energy Corporation and is scheduled for upgrading and possible expansion, several of the energy related facilities in the county have closed, or are scheduled for closure in the upcoming years. Several issues arise with the closure of these facilities. The LCP specifically states that the county or the State Department of Parks and Recreation or other agency shall be offered the right of first

refusal for piers no longer needed for petroleum operations. This policy will apply to the Unocal pier at Avila, where California Polytechnic State University (Cal Poly) has proposed use of the pier as a marine research center. Guidance for long-term use of decommissioned power plants (such as will be the case at Diablo Canyon, and at the Chevron marine terminal) was not an issue in the LCP certified in 1988. Because the structure of energy facilities is far more complex than that of piers, policies addressing the abandonment of these facilities must correspondingly be more complex, as well as facility-specific.

While the LCP does address some issues related to completion or abandonment of all above-ground oil production and processing facilities, it does not address the issue of site contamination. Since the LCP was certified in 1988, identification of contaminated sites and subsequent remediation has been a major issue along the San Luis Obispo coast (most notably at Avila Beach and the Guadalupe oil field). In fact, the only two appealed coastal permits related to oil and gas development involved petroleum contamination.³

The county does not have jurisdiction over federal leases on outer continental shelf (OCS) drilling. However, in 1986, San Luis Obispo County residents approved Measure A, requiring voter approval of any onshore oil facilities used to support offshore oil development, effectively limiting new offshore development. The County requires preparation of a Specific Plan for any onshore component of an offshore energy project. Since several federal offshore drilling leases have been extended, the issue of onshore oil facilities may again become an issue in the future

C. Preliminary LCP Implementation Issues

C.1. Fiber Optic Cable Projects

Overview: Since the SLO County LCP was certified in 1988, new fiber optic technology has emerged and the demand for fiber optic cable projects has grown quickly. Transoceanic cable projects are permitted by the State Lands Commission and the Coastal Commission, but transoceanic projects with a coastal component (i.e. that continue from the mean high tide line landward) and land-based fiber optic cable projects in the coastal zone include review by the County under the LCP. Because this technology has expanded so recently, few LCPs, including that of SLO County, have comprehensive policies to address either project-specific or cumulative effects of these projects and environmental impacts of such projects are not always adequately assessed and mitigated.

Policies are needed to encourage the establishment of cable corridors, and subsequently, consolidated landing sites, in order to minimize environmental impacts from fiber optic cable installation. There is already a *de facto* corridor due to hard bottom configurations offshore SLO

³ A-3-SLO-98-072 (Summary: Excavate subsurface petroleum hydrocarbon contamination under beach and town areas.) and A-3-98-91 (Summary: Field-wide remediation of contaminated soil and groundwater using a variety of proposed technologies).

county that is reaching capacity (the corridor is not wide enough to accommodate many more cables safely). This includes the consolidated landing sites at Montana de Oro. However, new cable corridors and consolidated landing sites should be identified pro-actively in a planning context (rather than on a case by case basis) in order to minimize environmental impacts and ensure protection of public access.

Lastly, there has been little systematic analysis of the cumulative impacts of fiber optic cable projects in the coastal zone and at landing sites. The LCP contains Industrial Land Use Designations to provide for siting of facilities, but consolidation occurs only on a case by case basis in those areas and onshore industrial sites may not correspond to the environmentally preferable offshore route.

LCP Implementation: The LCP identifies fiber-optic cables as Communications facilities, which are principal permitted uses in areas designated Industrial or Public Facilities.⁴ In addition to the LCP policies which apply through various Combining Designations (such as SRA Sensitive Resource Areas or GH Geologic Hazards), there are policies which address communication facilities as industrial uses. Energy and Industrial Policy 1 gives priority to siting of new or expanded facilities in or adjacent to existing sites. The LCP contains consolidation policies for both pipelines and electrical transmission lines (Policy 12, 18 and 19) but not specifically for communication facilities such as fiber optic cables. The CZLUO 23.08.286 provides standards for Communication Facilities as part of the standards for pipelines and transmission lines. This section includes application requirements for route-specific investigations, information requirements specific to stream crossings, site restoration plan requirements and requires that projects be approved in ESHA areas only where the Planning Commission can find that the project is consistent with Energy and Industrial Policies 7-12 (Pipelines). A Development Plan or Minor Use Permit is required for installation of most fiber optic cables, which is a discretionary decision by the Planning Commission requiring environmental review and subject to appeal to the Board of Supervisors or the Coastal Commission.

The following table summarizes all ocean-based cable projects in SLO County since 1988. The table shows that most fiber optic projects have been proposed within the last two years.

⁴ LCP Framework, Table O and page 6-43

Table 10-1: Ocean Based Fiber Optic Cable Projects since 1988

COMPANY	LOCATION	CCC STATUS	Local Agency Status
Golden Thread	Harmony, SLO	No application yet	
MCI Worldcom and MFS Globenet Japan-US Segment 1 Southern Cross Empty conduits	Montana de Oro, SLO	Approved 4/17/00	SLO County permit approved 1/27/00, Coastal Development Permit # D970257
Global West	Morro Bay, Santa Barbara, Manhattan Beach and San Diego	Approved 12/12/00	City of Morro Bay permit approved 3/19/01, Special Use Permit # 01-00; the Cities of Santa Barbara and Manhattan Beach also issued respective permits (no discretionary permits required by San Diego; fell within CCC's original jurisdiction)
PC & PAC Landing Corp (3) PC-Segment E PC-Segment S PAC-Segment 1	Grover Beach, SLO	Approved 6/13/00	City of Grover Beach permit approved 5/5/00, Coastal Development Permit # 98-03
AT&T – China US S7	Montana de Oro, SLO	Approved 5/11/00	County issued substantial conformity determination 10/1/98; original permit #D900132D approved 11/14/91
AT&T – China US E1	Montana de Oro, SLO	Approved 6/13/00	County issued substantial conformity determination 10/1/98; original permit #D900132D approved 11/14/91
AT&T – Japan-US Segment 9 (south end)	Montana de Oro, SLO	Application pending	Project covered under original County permit #D900132D
AT&T (3) TPC-5T1 HAW 5 TPC-5G	Los Osos and Montana de Oro State Park	Approved 1992, Active	
AT&T (2) HAW 2 HAW 3	Estero Bay Morro Bay	HAW 2 is inactive, removed to 1000 fathom water depth; HAW 3 abandoned in place	

Currently, the County's LCP provisions specific to communications facilities are fairly general and do not reflect some of the issues raised by this emerging technology. For example, during the review and approval process of some of the projects noted above, various environmental and Coastal Act issues arose repeatedly, including impacts to public access, environmentally sensitive habitat areas, marine mammals and marine resources.

Fiber-optic cable projects have some impacts that are different from pipeline projects. For example, borings under stream crossings or in the nearshore use bentonite that can be released into surface waters. Also, construction activities can impact public access as staging areas are frequently located in public parking areas or shoreline areas. For example, in the MCI Worldcom/MFS Globenet project the County found that project construction activities restricted access to public parking areas thus impairing public coastal access. As a result, parking improvements were negotiated. In addition, an offshore bentonite release by project construction activities was suspected and resulted in a shutdown of the project.

In addition to site impacts, the nature of offshore geology and the need to avoid hard-bottom habitat limits potential corridors for ocean-based cables, and associated landing sites. There should be advanced planning to locate future consolidated landing sites for ocean-based fiber optic cable projects, or to consolidate corridors for land-based cables. Existing consolidated landing sites such as Montana de Oro are reaching capacity and new ones need to be identified, consistent with other resource protection policies of the LCP, to meet demand for future projects.

The County adopted Ordinance 2899 in April 2000, which provides a framework for allowing telecommunications projects within County road rights-of-way, thus affecting primarily land-based fiber optic cable projects. The Ordinance includes conditions of use of streets and public rights-of-ways, construction standards, permitting and licensing, and a framework for the establishment of compensatory fees for use of public rights-of-way and property. However, the ordinance has no language on avoidance or mitigation of environmental impacts of telecommunications projects, except general mention of CEQA requirements. And, the ordinance has not been certified as part of the LCP.

Consistency Analysis: While there are LCP policies for consolidation of pipelines and electrical transmission corridors and general standards governing communication facilities, they are not sufficient to address the full range of issues raised with new and emerging technologies such as fiber optic cables. Projects have been reviewed on a case by case basis but do not assure that impacts will be minimized and that landing sites and land-based corridors will be consolidated. For example, the recent Global Photon project proposed to be located at a different landing site than other fiber-optic cable projects located in this area. But analysis of this landing site to accommodate future projects in this same location was not done and consolidation therefore not assured in conformance with Coastal Act policies. The LCP should be updated to include policies to ensure consolidation and to address impacts on coastal zone resources from these fiber optic cable projects. Without an update of the LCP, projects will continue to be assessed on a case by case basis, with no guidance as to preferred cable corridors and consolidated landing sites and the cumulative effect of present and future projects may cause greater damage to coastal zone resources.

Preliminary Policy Alternatives:

Preliminary Recommendation 10.1 Update LCP to Address Fiber Optic Cable Projects

The County could take several steps in updating its LCP Area Plans to plan for such projects. Land Use designations could be revised to identify consolidated cable corridors and consolidated landing sites via overlays. Additional mitigation measures could be developed to address potential impacts from drilling such as requirements for Drilling Fluid Monitoring Plans. Monitoring requirements could be included that provide for qualified monitors onsite with ability to stop drilling should fractures occur that could release bentonite. The CZLUO could be revised to include more specific mitigation for access/recreation impacts, avoidance or minimization of sensitive resources during construction, as well as mitigation measures such as erosion control, revegetation, and other measures necessary to protect scenic resources and habitat values.

C.2. New and Expanded Power Plants

Overview: The Coastal Act provides measures to protect coastal resources from power plant siting while balancing the need to allow reasonable expansion of such facilities. Under provisions of Section 30413 of the Coastal Act, the Commission was required to designate areas unsuitable for power plant construction. The Energy Commission has permit authority over power plant siting but it cannot approve any power plant or related facility in an area designated by the Commission as unsuitable. The Coastal Act also provides for later Commission involvement in the Energy Commission siting procedures within areas not designated as unsuitable. Designations made by the Commission as part of its power plant siting study may not preclude reasonable expansion of existing power plants. Where new power plant facilities are necessary, the Coastal Act policy encourages expansion of existing power plant sites, thus protecting undeveloped sites. The Commission adopted its power plant siting study, “Designation of Coastal Zone Areas Where Construction of an Electric Power Plant Would Prevent Achievement of the Objectives of the California Coastal Act of 1976”, in September 1978 which was revised and readopted in December 1985. This revised report was in effect at the time of LCP certification in 1988.

The California Energy Commission (CEC) has exclusive jurisdiction over thermal power plants of 50 megawatts or greater. In these cases, the CEC preempts the jurisdiction of all other state and local agencies (including the Coastal Commission and local government) when it certifies a new, modified or expanded power plant. However, Coastal Act Section 30413 requires the Coastal Commission to submit a report to the CEC analyzing the proposed power plant project’s conformity with the Coastal Act’s Chapter 3 policies and the policies of the certified LCP. Public Resources Code Section 25523(b) requires the CEC’s decision on any application to include “specific provisions to meet the objectives” of the Coastal Act and the LCP “unless the

[CEC] specifically finds that adoption of [the Coastal Commission's] provisions ,, would result in greater adverse effect on the environment or that [said] provisions..would not be feasible."

Since SLO County's LCP was certified in 1988, the energy industry has changed markedly with deregulation, and demand for power has increased with increased use of electronic technologies. These changes have led to plans for expansion or development of new power facilities. However, the only major power plant in SLO County jurisdiction is the Diablo Canyon nuclear power plant. The power plant owned by Duke Energy in Morro Bay that is proposed for expansion, is in the jurisdiction of the City of Morro Bay and thus not part of this LCP review.

The north coast area of San Luis Obispo County to the junction of US Highway 101 and Highway 46, as part of the Big Sur coastal area, is designated by the Coastal Commission as unsuitable for power plant construction. Most of the Estero Bay and Morro Bay areas including the beach park between the Morro Bay power plant and Estero Bay, are also designated as unsuitable. The area from Diablo Canyon south to Port San Luis is not designated primarily because of the existing Diablo Canyon power plant and transmission line corridors.

LCP Implementation: SLO County does not have jurisdiction over the expansion of Duke's Morro Bay power plant, as Morro Bay has its own certified LCP. Most of the area surrounding the City land where the Morro Bay plant is located is owned by the State and not by the County, further limiting the County's potential jurisdiction. SLO County does, however, have jurisdiction over any development related to power transmission lines in the County. The SLO Coastal Plan requires "transmission line rights-of-way shall be routed to minimize impacts on viewsheds in the coastal zone, especially in scenic areas, and to avoid locations in or adjacent to significant or unique habitat, recreational, or archaeological resources, whenever feasible. Scarring, grading, or other vegetation removal shall be minimized and disturbed areas shall be revegetated with plants similar to those in the area." The Plan also requires "undergrounding" of transmission lines when views may be affected, and consolidation of transmission corridors

SLO County's Coastal Policies address power plant siting and expansion in a general way, stating that "when new sites are needed for industrial or energy-related development, expansion of facilities on existing sites or on land adjacent to existing sites shall take priority over opening up additional areas or the construction of new facilities..." and that "adverse environmental impacts from the siting or expansion of coastal-dependent industrial or energy developments shall be mitigated to the maximum extent feasible." The Plan also states that "priority shall be given to coastal-dependent industrial uses. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support." The County policies are generally consistent with the Coastal Act policies related to power plant siting and expansion.

Preliminary Policy Alternatives:

Preliminary Recommendation 10.2. Update LCP Area Plans to Address Future Energy Facility Demand

It appears than many new or expanded power plants are planned for California in the near future.⁵ Recent statewide energy problems related to deregulation also make it likely that pressure will continue to increase for new and expanded power facilities. This, in turn, may lead to greater numbers of transmission lines and ancillary facilities. Although there are no current proposals to locate new power plant facilities in the SLO coastal zone, the update of the Area Plans should anticipate increased demand for such facilities and ensure that the LCP contains adequate guidance for locating and mitigating impacts from energy facilities.

C.3. Managing the Phaseout of Energy and Oil Facilities

Overview: The phase out of existing energy facilities is likely to be a growing concern. While the power plant at Morro Bay has been purchased by Duke Energy Corporation and is scheduled for upgrading and possible expansion, several of the energy related facilities in the County have closed, or are scheduled for closure in upcoming years. The Unocal pier at Avila has been decommissioned; the Chevron marine terminal is being decommissioned, and the PG&E Diablo Canyon nuclear power plant will eventually be decommissioned in stages. Given the anticipated phaseout of these major facilities, the SLO LCP needs to include the most current standards to govern decommissioning activities, remediation, and rezoning of land uses.

The two significant environmental issues for PG&E's Diablo Canyon Nuclear Power Plant are: agreement between the Central Coast Regional Water Quality Control Board and PG&E to resolve receiver water impacts due to impingement, entrainment and thermal discharges; and the proposed construction of a 'dry-cask' spent fuel storage facility near the plant. Initial staff research indicates that Diablo Canyon may begin an incremental decommissioning process within a decade, and within a year plans to apply for permits to construct the new dry cask spent fuel storage facility, although no permits have yet been filed. SLO County may thus have a permitting role for both a new fuel storage facility and the plant's eventual decommissioning. The San Luis Obispo Bay Area Plan Standards designate Diablo Canyon as an EX Combining District, do not encourage expansion in this area, and discourage encroachment of other development that may hinder the operating capabilities of the plant.

LCP Implementation: Regarding oil and gas facilities, the LCP states that "upon completion or abandonment, all above-ground oil production and processing facilities shall be removed from the site, and the area in which they were located shall be restored by appropriate contouring, reseeded, and planting to conform with surrounding topography and vegetation."

⁵ <http://www.energy.ca.gov/sitingcases/backgrounder.html>

Regarding abandonment of piers, the LCP states that “at such time as piers are no longer needed for petroleum operations, the county or the State Department of Parks and Recreation or other agency shall be offered the right of first refusal, if the pier is determined to be appropriate for recreation use.” To date, the County has not reviewed any permits for phaseout of power plants but has been involved in permitting the decommissioning of oil facilities, primarily at Guadalupe and Avila Beach.

Consistency Analysis: At Guadalupe and at Avila Beach, the County has implemented actions related to the phase-out of major energy facilities. For example, at Guadalupe the County issued a permit for abandonment, site restoration and ultimate protection of the area as open space through a required conservation easement. The County’s action has adequately addressed impacts connected with this phase out.

The Commission as well as the County has gained experience in identifying new information and management measures to improve mitigation of impacts from abandonment of facilities. For example, requirements for deadlines for abandonment and site restoration, along with mitigation fees will help to establish financial incentives for rapid site cleanup and restoration. Also, the Commission has overseen decommissioning activities at San Onofre Nuclear Generating Plant in Southern California. This experience can provide new information for incorporating more advanced standards and management measures for abandonment and decommissioning of facilities into an updated LCP. While the County LCP as part of the EX Combining Designation contains policies to address some facilities phase out, most specifically oil and gas (CZLUO 23.08.174), other provisions of the EX Combining designation emphasize development standards primarily for new construction rather than phase out. The County should apply the new information and techniques learned through experience to strengthen the LCP policies and standards for abandonment procedures, site remediation, and rezoning for all types of energy, communications and oil and gas facilities.

Preliminary Policy Alternatives:

Preliminary Recommendation 10.3 Update LCP to Address Abandonment of Energy Facilities

As part of the Area Plan Updates the County should update and revise standards and requirements governing abandonment and clean up of sites in the EX Combining Designation. Updating of standards could include revised requirements that operators submit an Abandonment and Restoration Plan within 60 days of permanently ceasing operations and require bonding or other financial securities to ensure that abandonment and clean up procedures are carried out in an appropriate and timely manner.